
2015 Annual Review and Certification of Sites with Land Use Controls and Sites with Monitoring of Land Use

Group 3 Sites (PICA-008) Groundwater and Surface Water,
Group of 11 LUC Sites (PICA-020)
Site 23 (PICA-065) Post Farm Landfill
Site 20/24 (PICA-066) Former Pyrotechnic Testing Range
Site 25/26 (PICA-067) Former Sanitary Landfill and Dredge Pile
Site 31/101 (PICA-072) Former DRMO Yard and Former Gas Station
Area D (PICA-076) Groundwater
Area E (PICA-077) Groundwater
Group 1 Sites (PICA-079) Groundwater
Site 61/104 (PICA-102)
Site 180 (PICA-093) Waste Burial Area Near Sites 19 and 34
Site 193 (PICA-193) Green Pond Brook and Bear Swamp Brook
Area B (PICA-205) Groundwater
Area C (PICA-206) Groundwater
Site 78 (PICA-013) Groundwater and Surface Water
Mid-Valley (PICA-204) Groundwater
Site 34 (PICA-002),
25-NFA Sites
21-NFA Sites

Picatinny Arsenal, New Jersey

Prepared for



Prepared by

EA Engineering, Science, and Technology, Inc., PBC.
Contract No. W91ZLK-13-D-0004-0009

March 2016

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2015 Annual Review and Certification of Sites with Land Use Controls and Sites with Monitoring of Land Use Picatinny Arsenal, New Jersey

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2	No Further Action with Monitoring of Land Use Sites

LIST OF ACRONYMS AND ABBREVIATIONS

µg/L	Microgram(s) per liter
AA	Area of attainment
ARAR	Applicable or relevant and appropriate requirement
ARCADIS	ARCADIS U.S., Inc.
Army	U.S. Army
BSB	Bear Swamp Brook
CEA	Classification exception area
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of concern
DRMO	Defense Reutilization and Marketing Office
EA	EA Engineering, Science, and Technology, Inc., PBC
EC	Engineering control
ECC	Environmental Chemical Corporation
GIS	Geographic information system
GPB	Green Pond Brook
IC	Institutional control
IFS	Integrated facility system
IRP	Installation Restoration Program
LUC	Land use control
MCL	Maximum contaminant level
MEC	Munitions and explosives of concern
mg/kg	Milligram(s) per kilogram
MNA	Monitored natural attenuation
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFA	No further action
NJDEP	New Jersey Department of Environmental Protection
NJGWQS	New Jersey groundwater quality standards
PAH	Polycyclic aromatic hydrocarbons
PCB	Polychlorinated biphenyl
PEMS	Picatinny Environmental Management System
PICA	Picatinny Arsenal
PTW	Permeable treatment wall
RA	Response action

RAO	Remedial action objective
RD	Remedial design
RDX	Cyclotrimethylenetrinitramine
RG	Remediation goal
RI	Remedial investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SCL	Site cleanup level
Shaw	Shaw Environmental, Inc.
TCE	Trichloroethene
TNT	Trinitrotoluene
USEPA	United States Environmental Protection Agency
UST	Underground storage tank
VOC	Volatile organic compound

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1. INTRODUCTION

EA Engineering, Science, and Technology, Inc., PBC (EA) has been retained by the United States Army Environmental Command (USAEC) to perform Installation Restoration Program activities at Picatinny Arsenal (PICA), located in Morris County, New Jersey (**Figure 1**). This work is being performed under the Environmental Remediation Multiple Award Indefinite Delivery/Indefinite Quantity Contract W91ZLK-13-D-0004 Delivery Order 0009, and will be overseen by the USAEC and the United States Army Corps of Engineers (USACE) for PICA, under approval by the New Jersey Department of Environmental Protection (NJDEP), and United States Environmental Protection Agency (USEPA) Region 2. Field activities associated with this contract are being conducted by EA's subcontractor Sovereign Consulting, Inc. (Sovereign).

1.1 LAND USE CONTROL SITES

This Annual Land Use Control Certification and No Further Action (NFA) Site Monitoring report was prepared in accordance with the various Land Use Control (LUC) Remedial Design (RD) documents for the sites listed below, which have signed Records of Decision (RODs). The specific LUC design documents are listed in **Table 1**.

- Group 3 Sites (PICA-008) Groundwater and Surface Water
- Group of 11 LUC Sites (PICA-020)
- Site 20/24 (PICA-066)
- Site 23 (PICA-065) Post Farm Landfill
- Site 25/26 (PICA-067)
- Site 31/101 (PICA-072)
- Area D (PICA-076) Groundwater
- Area E (PICA-077) Groundwater
- Group 1 Sites (PICA-079)
- Site 61/104 (PICA-102)
- Site 180 (PICA-093)
- Site 193 (PICA-193) Green Pond Brook and Bear Swamp Brook
- Area B (PICA-205) Groundwater
- Area C (PICA-206) Groundwater
- Site 78 (PICA-013) Groundwater and Surface Water
- Mid-Valley (PICA-204) Groundwater
- Site 34 (PICA-002) The Burning Ground

This report covers institutional controls (ICs), implementation of land use restrictions, and maintenance of engineering controls (ECs), collectively referred to herein as LUCs, to address contamination within groundwater, soil, sediment, and/or surface water at the site as stipulated in the applicable RD document and ROD. The report also details the existing land use controls as were noted in the individual Records of Decision and Remedial Designs.

This report contains the LUC objectives and annual certification; annual site inspection forms, site photos, and figures for each respective site for the 2015 calendar year. Table 1 presents a comprehensive list of the sites and their respective LUC design documents.

1.2 NO FURTHER ACTION SITES

In addition to the sites with LUC requirements (discussed in Section 1.1), this report also includes monitoring of land use site inspections for the following:

- 25 Sites within PICA-001 (Sites 17/18), PICA-006 (Site 16), PICA-022 (Sites 50 and 63/65), PICA-085 (Sites 46, 32,33,97, 105, 147, 148, 150, 184), PICA-143 (Site 108), PICA-163 (Sites 91, 35, 161,166,168, 169), PICA-171 (Sites 171 and 162), PICA-192 (Site 189), and PICA-199 (Site 199) (collectively known as the “25 NFA Sites”)
- 21 Sites within PICA-096 (10, 27, 60, 69, 117, 119, 120, 121, 123, 134, 136, 145, 164, 172, 174, 175, 176, 177, 185, 186, and PICA Site 208) (collectively known as the “21 NFA Sites”).

The RODs for the 25 NFA Sites (U.S. Army 2014a) and 21 NFA Sites (U.S. Army 2014b [signed by the Picatinny Garrison Commander and EPA on March 2, 2015]) indicate that no further action is necessary for these sites; however, annual monitoring of land use is required at these sites as they cannot be released for unrestricted use. There are no unacceptable cumulative risks for receptors under the current or reasonably anticipated future land use (military/industrial). Therefore, remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is not warranted at these sites, although monitoring of the land use is conducted on an annual basis to verify that the land use assumptions remain valid..

1.3 REPORT ORGANIZATION

In addition to this introduction, this report consists of the following chapters:

- **Chapter 2, PICA LUCs**—Includes an abbreviated site-wide history and a summary of PICA LUCs.
- **Chapter 3, Abbreviated Site History and Descriptions**—Presents individual site descriptions that provide a physical location, description, and history of each site.
- **Chapter 4, NFA With Monitoring Of Land Use Sites.**
- **Chapter 5, PICA Real Property Vision Plan.**
- **Chapter 6, Annual Land Use Certification**—Site inspection description, certification of Point of Contact, commitment to funding, and LUC objectives.

- *Chapter 7, Conclusions and Future Activities.*
- *Chapter 8, References.*

2. PICATINNY ARSENAL INSTALLATION CONTROLS

PICA has safeguards in place to ensure protection of the environment and the health and safety of arsenal personnel and the public. These controls include a soil clearance policy, munitions and explosives of concern (MEC) policies, and Master Plan regulations. In addition to these controls, PICA maintains a Geographic Information System (GIS) that contains LUC-related layers. These layers were included in the EPRISM database accessible via the internet. The EPRISM database contained information on contaminated areas and associated land use restrictions. The GIS and EPRISM databases were used as tools to ensure that LUCs are properly maintained and implemented. The EPRISM database was a product of an expired contract with ARCADIS and the database's continuation or replacement by a program similar in function is in development with the Environmental Chemical Corporation (ECC), who is currently responsible for the IRP and MMRP related portions of the GIS database.

The Picatinny Environmental Management System (PEMS) and its corresponding database are used to ensure environmental compliance during construction and other projects. Base access regulations and an Army Safety Program provide additional controls.

The PICA Soil Management Policy stipulates requirements for soil covering, soil movement, and soil management activities associated with construction activities at PICA. As of 2009, the Soil Management Policy was altered such that construction projects described in PEMS as re-using disturbed soils at the construction site do not need to provide a written memorandum. Instead the project manager of the construction project, or a representative for the project, certifies a statement documenting understanding of and compliance with the soil management standard operating procedure. The signed certifications are then entered into PEMS. An example certification statement is included in Appendix A for reference. In addition, Appendix A also contains the certified Site Construction Managers Statement queried from the PEMS database for the 2015 calendar year. It should be noted that Appendix A includes the Site Construction Managers Statement for all construction projects occurring at PICA during 2015 and is not specific to only those Sites discussed within this report. The Site Construction Managers Statement requires that the point-of-contact for the project who is signing the statement agrees to the Site Construction/Project Implementation Requirements within the scope of work detailed within the PEMS database as input by the proponent.

In addition to construction activities, building demolition was also conducted at PICA during the 2015 calendar year. There were minor soil disturbances associated with building demolition (e.g., foundation removal, abandonment of underground utilities, roadway repair, etc.). Soil disturbances associated with building demolition do not conflict with the requirements of the Soil Management Policy. A summary of buildings that were demolished during 2015 is included as Appendix B.

For large construction projects a soil management plan and standard operating procedure is contractually required. An example of such a plan, which was developed for the Base Realignment and Closure (BRAC) project, is included in Appendix A (document titled "Appendix A to Section 00800 – Soil Management Standard Operating Procedure Protocol Summary and Requirement for a Soil Management Plan"). There were no large construction

projects in calendar year 2015 that include a project-specific Soil Management Standard Operating Procedure.

The existing Soil Management Policy is periodically revised based on reviews of the appropriate requirements of the New Jersey Technical Regulations.

There are three locations on base that are currently used to store soils originating primarily from the BRAC projects: (1) near building 717; (2) at the former location of above-ground storage tanks near building 510; and (3) the lot across from the National Guard Office. Each area housing stockpiled soil is gated and locked, and the key is held by the Project Manager for Environmental Restoration.

3. ABBREVIATED SITE HISTORY AND DESCRIPTIONS

The following sections provide a brief summary of the site history and description of the physical condition for each site. Figures of each site are included in the site-specific Appendixes (**Appendixes C through S**).

3.1 GROUP 3 SITES (PICA-008) GROUNDWATER AND SURFACE WATER

The Group 3 Sites include Site 1, Site 2, and Site 4. The following sections have been edited from Sections 2.2.2, 2.4, 2.7, and 2.9 of the Final Groundwater and Surface Water at Group 3 Sites (PICA-008) ROD dated June 2010 (U.S. Army 2010a) and from the RD (ARCADIS 2010a). It should be noted that soils were not included in the Group 3 ROD; instead the soils are being addressed in the No-Further Action with monitoring of Land Use Proposed Plan Group B. The Group 3 Sites annual certification for 2015, inspection forms, figures, and photos are presented in Appendix C.

3.1.1 Background

Originally, Site 2 was operated by the Naval Air Rockets Test Station, a division of the U.S. Navy, and used for rocket testing, flare testing and training activities. Currently, Site 2 is operated by the Armament Research, Development and Engineering Center, Munitions Engineering Technology Center, which is a division of the United States Army headquarters Munitions Systems & Technology Directorate. Buildings located in the northwest portion of the Site are used for homeland security training. The Outdoor Small Arms Firing Range (G-2 Area) is located within the G-2 area. The outdoor firing range serves as the development platform for new training practices for the PICA Homeland Defense Training and Technology Test bed allowing the opportunity to observe training practices at all levels of government, including PICA and other federal agencies as well as state, county and local governments, involving military, law enforcement, and first responders.

A Ballistic Rail Gun had operated at Site 4 within Building 3620. A minimum of four additional buildings were devoted to ordnance disassembly, and Building 3611 was an instrument shop built in 1956-1957. Test Area E of Site 4 currently has five inactive structures (including Building 3627, which was the E-1D Control Room) and two inactive test stands. Site 4 was originally operated by the Naval Air Rockets Test Station division for rocket fuel and engine development similar to Site 1. Site 1 is inactive and contains former building structures and roadways.

3.1.2 Scope and Role of Response Action

The Selected Response Action (RA) is to address the contaminants of concern (COCs) identified in groundwater during previous investigations at the Group 3 Sites and is designed to provide protection to human health and the environment.

The Selected RA for remediation of groundwater at the Group 3 Sites (PICA-008) consists of *in situ* enhanced bioremediation at Site 2, with the implementation of long-term groundwater and

surface water monitoring and LUCs. Injections of emulsified vegetable oil, a carbon substrate, occurred in the surficial (unconfined) aquifer at Site 2. Surface water at the Group 3 Sites is being monitored throughout the duration of groundwater monitoring. Monitoring will continue until the groundwater RA reduces COC concentrations within the G-2 pond to concentrations below the New Jersey Surface Water Quality Criteria. LUCs are implemented to control current and future activities, preventing unacceptable risk to human health based on the current and reasonably anticipated future use of the Site (industrial). No RA beyond LUCs was required at Sites 1 and 4.

The Selected RA also involves performing any site maintenance required to maintain the protectiveness of the RA. LUCs will be inspected and maintained until such time as contaminant levels are sufficiently reduced to allow beneficial use. This includes inspection to ensure that current land use of the site has been maintained.

3.1.3 Current and Potential Future Land Use

Current land use within the Group 3 Sites (PICA-008) is industrial. Historical and current uses include various forms of rocket testing at all three Sites, rocket fuel development and engine re-design, small mine testing, Ballistic Rail Gun operations, and ordnance disassembly. Test Area E located in Site 4 is inactive. Test Area D of Site 4 is active, although all of the rocket test pads and stands are currently inactive and/or removed. The Ballistic Rail Gun, Building 3620, constructed in 1975 in the southern part of Test Area D, was in operation. At least four buildings in Test Area D were devoted to operations, storage, and support. Three buildings were devoted to ordnance disassembly. Buildings 3612, 3628, 3603, 3618, and 3625 were demolished in 2014.

The future land uses planned at the Group 3 Sites (PICA-008) will ultimately remain as industrial and are anticipated to consist of training activities and research and development, as specified in the 2015 Real Property Vision Plan for PICA.

Relative to use of groundwater beneath the Group 3 Sites (PICA-008), the State of New Jersey has designated all groundwater within the state as a drinking water source. However, PICA has a centralized water distribution system, and it has no current or future plans for the use of Group 3 groundwater for any purpose. Moreover, the Group 3 Sites are within a New Jersey Department of Environmental Protection (NJDEP) approved Classification Exception Area (CEA). As described in a letter dated 29 July 2002 to the NJDEP, the CEA was established for all groundwater beneath PICA in both the bedrock and unconfined aquifers. The NJDEP approved the original CEA on 18 November 2002. Biennial certification for the CEA has since been conducted during 2008, 2010, 2012, and 2014.

The CEA addresses all aquifers and COCs for Group 3 (PICA-008) groundwater. As long as the CEA is in place, NJDEP may prohibit the installation and pumping of wells within this area.

3.1.4 Remedial Action Objectives

The remedial action objectives (RAOs) for the Group 3 Sites (PICA-008) were developed such that attainment of these goals will result in the continued protection of human health, ecological

receptors, and the environment. The RAOs are specific to groundwater and soil contamination and incidental surface water impacts originating from the Group 3 Sites (PICA-008). The RAOs are as follows:

- Prevent human exposure to contaminated groundwater that would cause unacceptable risk over the duration of the RA
- Achieve the more stringent of the U.S. Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs) or New Jersey Groundwater Quality Standards (NJGWQS) for the identified COCs in a reasonable timeframe, thereby restoring groundwater to its beneficial use as a drinking water source
- Achieve New Jersey Surface Water Quality Criteria through remediation of groundwater for the identified COCs to ensure that groundwater remediation mitigates potential surface water impacts
- Maintain current land-use (industrial) and current ICs at the Group 3 Sites (PICA-008).

3.2 GROUP OF 11 LUC SITES (PICA-020)

The PICA-020 Group of Sites (Group 13) includes 11 Remedial Investigation (RI) Sites: Site 19, 28, 86, 106, 124, 135, 141, 143, 163, 182, and 183. PICA-020 also includes two NFA Sites (Site 49 and Site 44). The following Site descriptions were initially based upon Sections 2.2.2, 2.4, 2.6, and 2.8 of the Final PICA-020 ROD dated February 2008 (U.S. Army 2008a) and the Remedial Action Work Plan (ARCADIS 2008a). The Site uses and descriptions have been subsequently field verified during the annual inspections. The site uses described below remain consistent for 2015. The annual certifications, inspection forms, figures, and photos for the following 11 LUC sites are provided in **Appendix D**.

3.2.1 Site Descriptions

3.2.1.1 PICA-020/Site 19 – Former Pyrotechnic Demonstration Range

Site 19 covers 5.5 acres and is located south of the Shinkle Road and South Brook Road intersection. Site 19 was formerly a tree-covered wetland; it was filled in during the late 1940s and early 1950s by the installation of two drainage ditches and land filling with construction debris and borrow pit material. In 1963, the entire site had been filled and land filling activities ceased. This area has not been used as a pyrotechnic demonstration area since the early 1970s. The surface of Site 19 is flat and consists primarily of hard-packed dirt and gravel with dense vegetation including herbaceous plants, shrubs, and saplings. The Site is bordered by a gravel road and Green Pond Brook (GPB), which runs parallel to the Site. The drainage ditches flow into GPB.

One building was located on Site 19, Building 1186. As of the 2015 land use inspection, building 1186 has been demolished. The area southwest of the building was formerly used for testing tanks and other armored vehicles. Former Building 1180 was a 50-foot-high steel tower

constructed in 1948 and was removed from the site during 2012. The tower was used for various tests. Building 1186 was constructed in 1966 and used as a pyrotechnic view stand. Since 1980, it has been used to store miscellaneous non-hazardous items.

3.2.1.2 Site 163 – Baseball Fields

Site 163 consists of two baseball fields, a soccer field, and a playground located immediately north of the intersection of Spicer Avenue and Klanderman Lane. Site 163 is approximately 400 feet by 800 feet, and is relatively flat with slight slopes to the west and southwest. Currently, PICA continues to use the baseball and soccer fields.

3.2.1.3 Site 86 – Former Building 12, Former Photograph Processing Facility

Site 86 consists of Building 12 and is located at the intersection of Phipps Road and Fourth Street. Building 12 was constructed in 1977 and became a study site because of the hazardous chemicals handled during photograph processing. In 2011, Building 12 was remodeled and is currently identified as the Systems Engineering Directorate.

3.2.1.4 Site 182 – Building 5, Former Arsenal Reproduction

Site 182 consists of former Building 5, which was located on First Avenue southwest of the intersection with Farley Avenue. According to the PICA master planning IFS, former Building 5 was a plant utility building and energy maintenance control system until the building was demolished in 2012. A parking lot now exists where the building was located. Former Building 5 was constructed in 1918 and was used to store flammable materials. In the 1990s, the building housed the reproduction shop for PICA.

3.2.1.5 Site 183 – Building 58, Former Arsenal Reproduction and Training

Site 183 consists of a paved parking lot where former Building 58 was located on First Avenue at the intersection of Fourth Street. Former Building 58 was constructed for lumber storage in 1937 and was also used for general administration and office space. In 1971, former Building 58 was listed as a printing plant; it subsequently ceased operations in October 1993. Former Building 58 was identified as an organization classroom and administrative service until the building was demolished in 2011. A parking lot now exists where the building was located. Artillery weapons are now being stored on the gravel pads.

3.2.1.6 Site 28 – Sewage Treatment Plant's Former Sludge Beds

Site 28 consists of Building 85, Building 80A, and former Buildings 80, 82, and 80C, which were located alongside GPB in the southern portion of Area E. This area housed sewage sludge beds and a sewage treatment plant, which were located west of former Building 80. The sludge beds served the PICA main sewage treatment plant located in former Building 80.

3.2.1.7 Site 106 – Former Building 1010, Propellant Plant

Site 106 covers 0.22 acres in the eastern corner of Area F where former Building 1010, a propellant plant, was demolished between 1979 and 1991. After the building was demolished, all debris was allegedly buried on site. The validity of this information was examined during the RI performed in 1993 and 1994. The area was thoroughly investigated for polychlorinated biphenyl (PCB) contamination and buried contamination and nothing significant was discovered. Currently, this area is identified as a fenced-in rock storage area that was previously approved by the USEPA.

3.2.1.8 Site 124 – Former Building 166, Propellant Testing

Site 124 covers 1.7 acres in the southern portion of Area F near Kibler Road and included Former Building 166 and a nearby transformer station, TR 166. Former Building 166 was a one-story rectangular building, 48 × 58 feet, constructed in 1930 and was identified as a laboratory test building. This building was demolished after the inspection conducted on 18 October 2012.

3.2.1.9 Site 141 – Building 429, Propellant Crushing

Site 141 consists of Building 429 and is located on Thirteenth Avenue, northeast of the intersection with Ninth Street. Building 429 was constructed in 1942 for uses including a chemistry laboratory, ammunition surveillance, propellant processing, and propellant property testing. The PICA master planning IFS identifies Building 429 as a propulsion system building.

3.2.1.10 Site 143 – Building 436, Propellant Processing

Site 143 consists of Building 436 and covers 0.51 acre in the northwestern portion of Area F. Building 436 is located on Thirteenth Avenue, 400 feet southwest of Picatinny Lake, and was built in 1948. It has been used as a propellant processing plant since it was built (Argonne National Laboratory 1991). The PICA master planning IFS identifies Building 436 as a propulsion system building.

3.2.1.11 Site 135 – Buildings 315 and 316, Metallurgical Laboratory and Former Laboratory

Site 135 consists of Buildings 315 and 316, and is located at the intersection of Seventh Street and Eleventh Avenue. Records indicate Building 315 was constructed prior to 1905 and has been used as a sodium nitrate storehouse, as offices of the engineering division, as research and development laboratories, as physical sciences workshops, and as metallurgical laboratories. Metallurgical laboratory activities have been conducted at Building 315 for at least the past 25 years. The PICA master planning IFS identifies Building 315 as a metallurgical laboratory.

Records indicate Building 316 was constructed in 1907 as a sodium nitrate storehouse, and has also been used as a shop automation laboratory, a plasma equipment building, a uranium laboratory, a physical sciences facility, and, most recently, a metallurgy laboratory. In 1998 the Nuclear Regulatory Commission released Building 316 for unrestricted use. This release

removed restrictions previously imposed by the Nuclear Regulatory Commission and the Picatinny Radiation Protection Office. Building 316 is currently the Hazmart Pharmacy, a centralized storage of hazardous materials.

3.2.2 Scope and Role of Response Action

Remedial actions for soil at these 11 sites are addressed in a manner consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The selected RA for the 11 sites is implementation of LUCs. The existing PICA ICs and LUCs are protective of human health and the environment at the PICA 020 Group of Sites. No further remedial activities were necessary for these 11 sites. LUCs are and will be maintained until the concentrations of hazardous substances in the soil are at such levels to allow for unrestricted use and exposure. This includes inspection to ensure that current land use has been maintained and warning signs are in good condition.

3.2.3 Summary of Site Risks

There are no unacceptable risks identified for the current and reasonably anticipated future uses at any of the PICA-020 Sites.

3.2.4 Remedial Action Objectives

The RAO for these 11 sites is to maintain current land use (industrial) and current ICs.

3.3 SITE 20/24 (PICA-066) – FORMER PYROTECHNIC TESTING RANGE

The following sections are summarized from Sections 2.2.2, 2.4, 2.6, and 2.8 of the Final Site 20/24 ROD dated November 2001 (U.S. Army 2001) and from the Remedial Action Work Plan (IT Corporation 2002). The Site 20/24 (PICA-066) annual certification, inspection forms, figure, and photos are presented in Appendix E.

3.3.1 Background

Approximately seven acres of Site 20/24 had been used for miscellaneous waste and debris disposal that began in the 1960s and continued until 1972.

Site 20 consists of an approximately three-acre, flat, cleared area located entirely within the boundary of Site 24. A wooden structure (Building S-72) and a metal shed are located within the northern portion of Site 20. Building S-72 and the metal shed may have been used to control and view pyrotechnic testing activities at the site.

Site 24 consists of cleared, reclaimed/filled wetlands containing several small, mobile buildings/sheds, ponds, and man-made drainage ditches. The most prominent feature of Site 24 is a shallow pond that occupies an area of approximately three acres and is typically referred to as the landfill pond. The site reportedly received sanitary waste, fly ash, ordnance, industrial waste, and water treatment plant.

Additional information regarding these topics can be found in the Phase I RI (Dames and Moore 1998), Site 20/24 Data Report and Additional Investigation Work Plan (ICF Kaiser 1998), and in the Final Feasibility Study of Site 20/24 (IT Corporation 2000) as well as the Site Closure Report (Shaw Environmental, Inc. [Shaw] 2006a) and subsequent long-term monitoring reports.

3.3.2 Scope and Role of Response Action

The remedial action for the Site consisted of containment of soil contaminated with PCBs, lead, and 4,4'-dichlorodiphenyltrichloroethane (4,4'-DDT) using a vegetated soil cover. In addition, the property is subject to access restrictions designed to prevent disturbance of the soil cover and to prevent any non-industrial use of the Site. The area covered by the soil cover is approximately two-acres. In addition to the area that was capped, soils that laid outside of the area to be capped that had COC's above the Remediation Goals (RGs) were excavated and placed within the capped area. The edges of the soil cover are protected with rip-rap to reduce the potential for washout of the contaminated materials beneath the soil cover. The volume of consolidated contaminated soil within the cap is estimated to be 900 cubic yards. LUCs are and will be maintained until the concentrations of hazardous substances in the soil are at such levels to allow for unrestricted use and exposure. This includes inspection to ensure integrity of soil cover, ensure access restrictions are in place, and that warning signs are in good condition.

3.3.3 Current and Future Land Use

Site 20/24 had previously been used for the testing of pyrotechnic flares. It is also designated as a safe haven parking area and is periodically used for hunting purposes. The Safe Haven Plan allows for temporary parking of explosives laden vehicles. However, Site 20/24 will require modification to accommodate large vehicles and incorporate a new lightning protection system. The soil cover was constructed such that this use can continue without compromising the cover. Soil cover maintenance does identify and repair damage to the cover from these vehicles if any were to occur. The site is located within Hunting Area 18. The Army installed a small weather station on a 25-foot-by-25-foot concrete pad, as was noted in the ROD. The station is not located on the remediated area and will be used intermittently by PICA personnel. Much of the wetland within this Site was mitigated as part of the lower burning grounds remediation and referred to as Mitigation Area No. 1.

3.3.4 Remedial Action Objectives

The RAOs for Site 20/24 have been developed to assure the protection of human health, ecological receptors, and the environment for the intended land use of the Site. Site 20/24 will continue to be used in an industrial capacity for the completion of PICA's active missions. The objectives are specific to contaminated surface soils, subsurface soils, surface water, and sediment originating from Site 20/24. The RAOs for this Site are to:

- Prevent exposure to contaminated media by human and biological receptors
- Protect uncontaminated media for future use
- Minimize migration of contaminants to adjacent media

- Protect environmental receptors.

3.4 SITE 23 (PICA-065) – POST FARM LANDFILL

The following sections are summarized from Sections 2.2.2, 2.4, 2.6, and 2.8 of the Final Site 23 Post Farm Landfill ROD dated August 2004 (U.S. Army 2004b) and from the RD (Shaw 2006b). The Site 23 (PICA-065) annual certification, inspection forms, figure, and photos are presented in **Appendix F**.

3.4.1 Background

Prior to 1940, Site 23 was a farm. From the 1940s to the 1970s, the Drum Burial Area received industrial wastes generated at PICA. These drummed wastes included caustic paint stripper, used hydraulic oils, wastewater from oil reservoirs, tank cleaning wastes, fly ash, and solid waste. In the 1950s, Site 23 was used mostly for borrow pit materials. The Site has been used to dispose of clean fill and vegetation. The Site is currently used for recreational activities, which is primarily hunting.

3.4.2 Scope and Role of Response Action

The removal of buried waste containers and scrap metal, and the placement of a soil cover at the Drum Burial Area and Northern Burial Area by the Army at Site 23 removed the principle threat waste at the Site. This work was completed through a Non-Time Critical Removal Action. Follow-up studies found scattered, low levels of contamination and a remedial action was implemented to prevent unacceptable human health risks from exposure to contaminated soils or groundwater.

The Selected Remedy for the site consists of the performance of long-term groundwater monitoring and implementation of LUCs as specified in the RD. The ROD stipulates the implementation of certain LUCs to prevent future residential development at Site 23 (PICA-065) and to prohibit use of the aquifers beneath the Site. These controls will preclude unacceptable human health risks from exposure to contaminated soils or groundwater. The following performance objectives for the LUC remedy were established in the RD:

- Prohibit residential use of the Site
- Prohibit human contact with or consumption of Site groundwater containing concentrations of COCs that exceed Federal MCLs, New Jersey MCLs or NJGWQS
- Prohibit human contact with fly ash at the Site
- Maintain the integrity of the vegetated soil cover already in place at the Site
- Prohibit the spread of fly ash from the Site.

LUCs are and will be maintained until the concentrations of hazardous substances in the soil are at such levels to allow for unrestricted use and exposure. This includes inspection to ensure integrity of soil cover, ensure access restrictions are in place, and that warning signs are in good condition.

3.4.3 Current and Potential Future Land Use

Site 23 is undeveloped, which is the land use designation in the 2015 Real Property Vision Plan. As such, it is currently an active U.S. Army industrial site. The area surrounding the Site is located within Hunting Area 1. Future development of the 10.3 acres of land defined as Site 23 will be consistent with the remedy and acceptable risk exposure scenarios. Residential land use will not be allowed at Site 23.

3.4.4 Remedial Action Objectives

The RAOs for Site 23 were developed to assure the protection of human health and the environment. The objectives are specific to contaminated surface soils, subsurface soils, groundwater, surface water, and sediment originating from Site 23. The RAOs for this site are as follows:

- Prevent human exposure to groundwater contaminated with COCs at levels greater than the chemical-specific Applicable or Relevant and Appropriate Requirements (ARARs) through protection of points of compliance
- Prevent human exposure to and spread of fly ash and contaminated soil
- Protect uncontaminated on-post groundwater for future use
- Protect off-post groundwater, surface water, sediment, and soils for unlimited use
- Prevent human exposure to surface soils contaminated with COCs at levels greater than the chemical-specific levels of concern.

3.5 SITE 25/26 (PICA-067) – FORMER SANITARY LANDFILL AND DREDGE PILE

The following sections are summarized from Sections 2.2.2, 2.4, 2.6, and 2.8 of the Final Site 25/26 ROD dated January 2007 (U.S. Army 2007a) and from the Remedial Action Work Plan (ARCADIS 2007a). The Site 25/26 (PICA-067) annual certification, inspection forms, figure, and photos are presented in **Appendix G**.

3.5.1 Background

A wide variety of wastes were reportedly disposed of at Site 25 from the 1940s through the early 1970s, which may have included rubbish, industrial wastes, shells, and sewage treatment plant sludge. As per the ROD (U.S. Army 2007a) and detailed in the RA Work Plan (ARCADIS 2007a), the landfill area was subsequently covered with soil and vegetation was reestablished.

Site 26 consists of an irregularly shaped pile of sediments dredged from portions of GPB. In 1982, the dredged material was taken from two separate locations in GPB. The dredged material from GPB was suspected to contain a variety of potential contaminants.

The soil at Site 25/26 became contaminated with organic compounds and metals due to the landfill and dredging activities. The groundwater beneath the site is addressed separately within the Area C groundwater ROD.

3.5.2 Scope and Role of Response Action

The remedial action is primarily targeted at the surface soil, which is contaminated by polycyclic aromatic hydrocarbons (PAHs). No contaminants were identified for subsurface soil, and there are no sources to groundwater contamination in surface or subsurface soil attributable to Site 25/26. The selected remedial action for Site 25/26 is designed to provide the most protection of human health and the environment through the reduction of exposure and mobility of contaminants at the Site. Both capping and implementation of LUCs were performed at this Site. The Army ensures only appropriate land use of Site 25/26 takes place and that the remedy is and will be protective of human health and the environment.

The following LUC performance objectives for Site 25/26 (PICA-067) will be met by implementation of LUCs:

- Prevent site access for intrusive work without MEC precautions
- Maintain the vegetated soil cover to prevent direct contact with contaminated soils that exceed the risk criterion of 1×10^{-6}
- Prohibit the development and use of the property for residential housing, elementary and secondary schools, child-care facilities and playgrounds that result in unacceptable risks

Estimated excess human health risk at this Site for current and reasonably anticipated future land use is greater than one in one million (1×10^{-6}) but less than one in ten thousand (1×10^{-4}). This is within USEPA's target range for managing risks as part of a Superfund Cleanup.

LUCs are and will be maintained until the concentrations of hazardous substances in the soil are at such levels to allow for unrestricted use and exposure. This includes inspection to ensure the integrity of the soil cover has been maintained and that warning signs are in good condition.

3.5.3 Current and Future Land Use

Future land use for Site 25/26 and the surrounding area is expected to include hunting and occasional use by site workers for the guidance system test area. The Army anticipates this current land use continuing into the foreseeable future. However, this Site is contained within the footprint of the Enhanced Use Lease initiative at PICA. Should the Army lease this Site, the lease agreement will include the requirements of the LUCs to maintain protection of human health and the environment. Any redevelopment of the Site pursuant to the lease agreement shall

be coordinated with USEPA and NJDEP and shall meet the RAO of eliminating the pathway to soils with contaminants that exceed the 1×10^{-6} level.

3.5.4 Remedial Action Objectives

RAOs are based on human health and environmental factors, which are considered in the formulation and development of RAs. The RAOs are specific to the contaminated soil originating from Site 25/26 and are to:

- Prevent exposure to contaminated soil impacted with COCs above the Site Cleanup Levels (SCLs)

3.6 SITE 31/101 (PICA-072) – FORMER DEFENSE REUTILIZATION AND MARKETING OFFICE YARD AND FORMER GAS STATION

The following sections are summarized from Sections 2.2.2, 2.4, 2.7, and 2.9 of the Final Site 31/101 (PICA-072) ROD dated November 2008 (U.S. Army 2008c) and the Remedial Action Work Plan (ARCADIS 2009). The Site 31/101 (PICA-072) annual certification, inspection forms, figure, and photos are presented in **Appendix H**.

3.6.1 Background

3.6.1.1 Site 101

Site 101 includes Buildings 311 and 319. Building 311 was built in 1941 and used as a gasoline station until December 1991. The gasoline pumps were removed from service in June 1991. As a part of the closure activity, UST 17 and UST 18 were excavated and confirmatory soil samples were collected from the excavated soil. No detectable levels of benzene, toluene, ethylbenzene, and xylenes or total petroleum hydrocarbons were present in the soil samples collected during the closure activities.

Constructed in 1909, the original Building 319 was used as a storehouse for sodium nitrate. This building was destroyed in an explosion that also destroyed many other buildings on PICA. Building 319 was rebuilt in 1926 to its current expanded and modified size. Building 319 was reportedly used in the production of explosives during World War I and World War II and for the storage of gasoline products.

According to PICA personnel, the north and south portions of Building 319 were used as a vehicle dispatcher's office and for the storage of automobile tires from the early 1960s until the late 1970s. PICA personnel also indicated that, prior to the 1960s, this building might have been used as a horse stable. Since the late 1980s, Building 319 has been used for administrative purposes including housing the Environmental Affairs Division of PICA.

3.6.1.2 Site 31

Presently, most of the former Defense Reutilization and Marketing Office (DRMO) yard area is paved and fenced; however, historical records indicate that the DRMO yard was originally a marsh area adjacent to GPB. Until July 1998, Site 31 had been used as a storage yard for the disposal, salvage, and sale of excess materials. The DRMO yard was closed in the mid-1990s, and currently the Site is used as a storage area consistent with the ROD (U.S. Army 2008c). The majority of the former DRMO is surrounded by a chain-link fence.

3.6.2 Scope and Role of Response Action

The Selected RA addresses the COCs, which were identified in surface and subsurface soils. The Selected RA for Site 31/101 (PICA-072) is designed to provide protection of human health and the environment and was a combination of excavation and off-site disposal of soil with PCB concentrations greater than 160 milligrams per kilogram (mg/kg); excavation and off-site disposal of lead-contaminated soil adjacent to GPB; and the installation of an asphalt cap. Because contamination remained in place, LUCs to ensure human health protectiveness were implemented. The Selected RA was designed to achieve the site-specific RAOs. An interim removal action (IRA) was performed at this site under the Military Munitions Response Program in 2009 in which surface improved conventional munitions were removed and properly disposed, followed by capping the area to eliminate the pathway to any buried munitions.

The remediation of this Site entailed the following:

- All PCB soils with PCB concentrations greater than 160 mg/kg were excavated and disposed of off-site.
- All soils within 20 feet of GPB and at sample location 31GR-Z7 were excavated and disposed of. Whether soil was disposed of off-site or on-site was dependent on characterization via the Toxicity Characteristic Leaching Procedure. Any soils exhibiting hazardous concentrations were disposed off-site. The remaining non-hazardous soils were characterized using the Standard Protocol Leaching Procedure. Any soils exceeding the site-specific impact to groundwater criteria were consolidated on-site, beneath an asphalt cap. Any soils not exceeding the site-specific impact to groundwater criteria were consolidated on-site beneath a vegetated soil cap or capped in place.
- Following the initial excavation, all remaining soils that exceeded SCLs were capped in place or excavated and consolidated on-site, as appropriate based on the final limits of the cap, which are presented in the RD.
- LUCs were implemented to control current and future activities that could cause exposure to environmental contaminants resulting in unacceptable risk to human health.

LUCs are and will be maintained until the concentrations of hazardous substances in the soil are at such levels to allow for unrestricted use and exposure. This includes inspection to ensure the integrity of the soil cover has been maintained and that warning signs are in good condition.

3.6.3 Current and Potential Future Land and Water Uses

Since the late 1980s, Building 319, located within Site 101, has housed the administrative offices of the Environmental Division. The DRMO yard, Site 31, was closed in the mid-1990s but is currently used for storage of equipment and recycling dumpsters. Buildings 314, 314B, 314C, 314D, and 314E are all currently used for storage and light industrial activity. There are no changes planned for the use of either site. The PICA Land Use Map has this area designated for administrative support, and the PICA Real Property Vision Plan indicates the future use of the area will be for industrial activities.

3.6.4 Remedial Action Objectives

The RAOs are specific to surface and subsurface soils contaminated by sources originating from Site 31/101 (PICA-072); and are based on unacceptable risk to human health in compliance with CERCLA. Such objectives are developed based on the criteria outlined in Section 300.430(e)(2) of the NCP and Section 12 of the Superfund Amendments and Reauthorization Act (SARA). Groundwater underneath the Site is addressed by the Mid-Valley Groundwater (PICA 204) ROD (U.S. Army 2012).

The RAOs for Site 31/101 (PICA-072) are to:

- Prevent exposure to surface and subsurface soil that results in unacceptable risk to human and ecological receptors
- Prevent migration of COCs above SCLs in Site soil to GPB sediment
- Prevent impact to groundwater by all Site COCs above SCLs.

These objectives can be achieved by reducing or eliminating the pathway for exposure to soil or reducing levels of COCs in the soil.

3.7 AREA D (PICA-076) GROUNDWATER

The following sections are summarized from Sections 2.2.1, 2.4, 2.6, and 2.8 of the Final Area D Groundwater ROD dated April 2004 (U.S. Army 2004a) and from the RD (ARCADIS 2008b). The Area D (PICA-076) Groundwater annual certification, inspection forms, figure, and photos are presented in **Appendix I**.

3.7.1 Background

Area D groundwater is impacted by a chlorinated solvent plume. This plume was created when solvents were released to the groundwater from a metal plating operation formerly housed in Building 24. Four of the sites within Area D, Site 21/37, Site 45, Site 122, and Site 123 were investigated as possible sources of the trichloroethene (TCE) contamination, and it was

determined that the historical waste handling activities at Site 21/37 were responsible for the TCE plume, which included a settling lagoon at Site 37 and a dry well at Site 21.

Both the lagoons and the dry well have been removed and are no longer a source of groundwater contamination. The dry well was excavated and disposed of in 1985. Closure of the lagoons and dry well was completed in 1991. Both of these actions were completed under the Resource Conservation and Recovery Act program.

3.7.2 Scope and Role of Response Action

The remediation of Area D groundwater is part of a comprehensive environmental investigation and remediation process currently being performed at PICA. The selected remedy for the Site consisted of the construction of a permeable treatment wall (PTW) with monitored natural attenuation (MNA) and implementation of ICs. Area D is located in the southern portion of PICA. An interim-action hydraulic barrier pump and treatment system ceased operation after the completion of the PTW. This remedy was designed and is intended to treat groundwater contamination in the unconfined glacial aquifer and to prevent further discharge of groundwater contaminants to the waters of GPB. Specific elements of the remedy, ICs and LUCs, include the following:

- Well maintenance and repair
- Excavation prohibition in accordance with the PICA Soil Management Policy
- Implementation of a CEA
- Incorporation of all relevant data into the IRP office GIS
- Compliance with all NJDEP Water-Allocation regulations
- Continuation of wellhead treatment and monitoring of potable water supply well 131.

The action selected is consistent with additional actions that may be applied in the future in other areas of PICA. LUCs will be inspected and maintained until such time as contaminant levels are sufficiently reduced to allow beneficial use. This includes inspection to ensure that current land use of the site has been maintained.

3.7.3 Current and Future Potential Land Uses

The PICA master planning land use designation for the land within Area D is industrial and administrative operations. Numerous industrial activities are conducted in this area of PICA, including vehicle maintenance, waste accumulation and storage, surveillance laboratory operation, and photographic processing. This area also contains administrative space, the post cafeteria and several military housing units, as well as a portion of the base golf course. No volatile organic compound (VOC) contamination originated from these latter activities.

Groundwater supply well 131 is located within the boundaries of Area D east of Building 34. It is screened in the lower semi-confined and bedrock aquifers, and is located below the majority of the contaminated groundwater. The water produced by well 131 contains low levels of TCE. This water is extracted and treated to remove VOCs prior to consumption.

The future land use of Area D is anticipated to remain unchanged from current land use. Area D will continue to be used for industrial activities by the Army. All of the water generated from supply wells at PICA is monitored regularly.

3.7.4 Remedial Action Objectives

The RAOs for Area D groundwater have been developed in such a way that attainment of these goals will result in the protection of human health and the environment, although the groundwater currently poses little or no threat to human health. These objectives are specific to groundwater and surface water contaminated by sources originating from Building 24.

The LUC performance objectives outlined in the Final Remedial Design Addendum, Land Use Control Plan, (ARCADIS 2008c) for Area D Groundwater are:

- Control excavation without safeguards in all areas below the water table in the plume footprint through the PICA Soil Management Policy
- Update PICA's existing CEA to specifically address the Area D groundwater plume
- Incorporate Area D data into the IRP GIS
- Comply with all NJDEP water allocation regulations
- Continue wellhead treatment and monitoring of potable water supply well 131.

3.8 AREA E (PICA-077) GROUNDWATER

Text for this section has been summarized from Sections 2.2.1, 2.4, 2.7, and 2.9 of the Final Area E Groundwater and Site 22 (Building 95 Impoundment Area) ROD dated July 2007 (U.S. Army 2007b) and from the RD (ARCADIS 2008d). The Area E (PICA-077) Groundwater annual certification, inspection forms, figures, and photos are presented in **Appendix J**.

3.8.1 Site Background

Area E groundwater is predominantly impacted by waste disposal practices associated with former metal plating operations involving the use of degreasing and cleaning with chlorinated solvents from the 1960s through the mid-1970s. Site 22 consists of the location of two former unlined sand filter lagoons and one former unlined sludge drying bed (jointly referred to as the surface impoundment unit)..

3.8.2 Scope and Role of Response Action

The overall environmental cleanup goal is to protect human health and the environment by eliminating or reducing any potential risks caused by past installation activities. The Army will act to ensure that future land use of Site 22 is consistent with the LUC objectives. Five-year reviews will be conducted in compliance with CERCLA and the NCP to ensure that the remedy is and will be protective of human health and the environment. LUCs will be inspected and

maintained until such time as contaminant levels are sufficiently reduced to allow beneficial use. This includes inspection to ensure that current land use of the site has been maintained.

3.8.3 Current and Potential Future Land Uses

The PICA master planning land use designation for the land within Area E is administrative and laboratory operations. Numerous uses and activities are conducted in this area of PICA including:

- Base golf course maintenance facility (Site 44)
- Administrative office space in Building 95 (Site 38)
- Public relations activities, e.g. Veterans Day in parking lot south of Building 95 (Site 38)

No VOCs originated from these activities other than the contaminants identified at Sites 22 and 38.

The Selected Remedy for the site included updating the previous versions of the CEA. As described in a letter dated 29 July 2002 to the NJDEP, the CEA was established for all groundwater beneath PICA in both the bedrock and unconfined aquifers. The CEA is updated on a biennial schedule, and was most recently updated in 2014.

Area E is entirely within PICA's property boundary. PICA is an active military installation with a potable water system that currently meets all of its needs. There are currently no plans for increasing the capacity of that system.

3.8.4 Remedial Action Objectives

The RAOs for Area E groundwater and Site 22 were developed such that attainment of these goals will result in the protection of human health, ecological receptors, and the environment. RAOs for Area E groundwater are specific to groundwater contamination identified within Area E. The RAOs for Area E groundwater are:

- Prevent human consumption of and contact with contaminated Area E groundwater.
- Prevent contamination of uncontaminated Area E groundwater and surface water with COCs.
- Restore contaminated Area E groundwater to comply with its use designation. The designated use of groundwater underlying Area E is Class IIA groundwater, whose primary use is potable water and/or conversion to potable water through conventional treatment, mixing, or similar techniques.

As an additional safeguard, the RAO to prevent human consumption of Area E groundwater will be met by the PICA CEA until attainment of the third RAO above, aquifer restoration, is met.

The risks identified in the previous section will be mitigated by attainment of these RAOs, as the only unacceptable human health risk is due to ingestion of the Area E groundwater. By preventing consumption of the groundwater, the human ingestion risk is mitigated.

RAOs for Site 22 address soil, sediment, surface water. Although there are sporadic exceedances of NJDEP Non-Residential Direct Contact Soil Cleanup Criteria for subsurface soil at Site 22, no exposure to this material is anticipated because it is buried beneath as much as seven feet of clean-fill material. Therefore, no COCs were developed for soil at Site 22 for industrial land use. Because PICA is an active military installation with no plans to use Site 22 for residential purposes, no evaluation of residential land use was performed as part of the risk assessment. Additionally, no comparison of site soils to residential levels of concern was performed. The RAO for Site 22 is: “prevent residential exposure to contaminated soil, surface water and sediment remaining at Site 22.”

Attainment of this RAO eliminates potential risks associated with Site 22.

3.9 GROUP 1 SITES (PICA-079) GROUNDWATER

The following sections are summarized from Sections 2.2.2, 2.4, 2.7, and 2.9 of the Final Group 1 Sites ROD dated July 2010 (U.S. Army 2010b) and from the Remedial Action Work Plan (ARCADIS 2010b). Group 1 is approximately four acres in size and encompasses four sites: 40, 93, 156, and 157. The Group 1 Sites annual certification, inspection forms, figure, and photos are presented in **Appendix K**.

3.9.1 Background

Site 40 consists of Buildings 809 and 810; Building 809 was originally constructed for use as a large-caliber projectile washout facility, and Building 810 was originally intended as an operating facility. Currently, the Buildings are respectively used as an explosives wastewater treatment plant and a melt-pour research facility.

Site 93 used to consist of both Buildings 800 and 807. Building 800 was previously used for loading submissiles into warheads and has been demolished; the only building currently standing at Site 93 is Building 807. Building 807 was originally constructed as a receiving, cleaning, and inspection facility, but is currently used for cold storage and for staging packing materials for Building 820 (Site 157).

Site 156 consists of Buildings 813, 816, and 816-B. Site 156 includes Buildings 813, 816, and 816B used as large caliber projectile loading plants and as inert storage facilities.

Site 157 consists of Buildings 820, 823, and 824. These buildings were used as large caliber projectile loading plants. In addition Building 823 was also used to treat operational wastewaters. Building 820 has since been reactivated as an ammunition repack and surveillance facility.

Investigation results for the Group 1 Sites (PICA-079) can be found in the Phase I RI (Dames and Moore 1998).

3.9.2 Scope and Role of Response Action

The Selected RA addressed the COCs, which were identified in soil and groundwater during previous investigations at the Group 1 Sites. The RA selected for Group 1 Sites (PICA-079) was designed to provide protection to human health and the environment.

The Group 1 Sites were divided into four separate areas of remediation based on site- and media-specific COCs. Therefore, analytical evaluations were conducted for each of the following: explosives in soil, arsenic and PAHs in soil, PCBs in soil, and explosives in groundwater. Sediments located within the Group 1 Sites are being evaluated as a part of Picatinny Lake (PICA-057). However, surface water and sediment monitoring are being conducted as part of the selected groundwater remedy to monitor impacts on Picatinny Lake as a result of existing groundwater contamination for trinitrotoluene (TNT) and cyclotrimethylenetrinitramine (RDX).

The RA selected for the remediation of explosives in soil at the Group 1 Sites consisted of:

- Excavation and off-site disposal of 598 cubic yards of contaminated soil.
- Remediation of arsenic, PAHs, and PCBs in soil at the Group 1 Sites via the implementation of LUCs for each of the contaminated areas.
- Implementation of LUCs and MNA. Surface water and sediment at the Group 1 Sites are being monitored for groundwater COCs throughout the duration of the groundwater remedy.

LUCs for soil and groundwater have been implemented to control current and future activities at the Group 1 Sites that could result in unacceptable risk to human health.

The Selected RA also involves performing any site maintenance required to maintain the protectiveness of the RA. The LUCs and any maintenance implemented by the Army are in the RD. LUCs will be inspected and maintained until such time as contaminant levels are sufficiently reduced to allow unrestricted use. This includes inspection to ensure that current land use of the site has been maintained and warning signs are in good condition.

3.9.3 Current and Future Land Use

The PICA master planning land use designation for the land within the Group 1 Sites (PICA-079) is industrial. The future use of these sites at PICA is not expected to change from the current use (military/industrial).

3.9.4 Remedial Action Objectives

RAOs are based on human health and environmental factors, which are considered in the formulation and development of RAs. Such objectives are developed based on the criteria outlined in Section 300.430(e)(2) of the NCP and Section 121 of SARA.

The RAOs for the Group 1 Sites (PICA-079) have been developed in such a way that attainment of these goals will result in the continued protection of human health and the environment. The RAOs are specific to the soil and groundwater contamination originating from the Group 1 Sites (PICA-079). The RAOs are to:

- Prevent human exposure to contaminated groundwater that would cause unacceptable risk over the duration of the RA.
- Achieve the more stringent of the Federal MCLs or NJGWQS for the identified COCs in a reasonable timeframe, thereby restoring groundwater to its beneficial use as a drinking water source. For RDX and TNT, which have no established MCL or NJGWQS, the Health Advisory Level will be used as the cleanup goal.
- Address soils with contaminants driving risk for the Sites greater than 1×10^{-4} or Hazard Index greater than 1.
- Manage soils with calculated risk in the risk range of 1×10^{-4} to 1×10^{-6} following NCP guidance.

3.10 SITE 61/104 (PICA-102)

The following sections are summarized from Sections 2.2.2, 2.4, 2.6, and 2.8 of the Final Sites 61 and 104 (PICA-102) ROD dated October 2008 (U.S. Army 2008b) and from the Remedial Action Work Plan (ARCADIS 2008e). The Site 61/104 (PICA-102) annual certification, inspection forms, figure, and photos are presented in **Appendix L**.

3.10.1 Background

Site 61 is north of Site 104 and includes Building 171 and 176 which were used for laboratory equipment storage, ammunition sampling and as a photographic laboratory. Currently, Buildings 171 and 176 at Site 61 are used as administrative buildings. Site 104 includes former Building 161 and Building 162 which were used as a railroad scale house and for propellant and ammunition analyses.

3.10.2 Scope and Role of Response Action

The Selected RA will address the COCs, which were identified in soils and sediment. The Selected RA for Site 61/104 (PICA-102) is designed to provide protection to human health and the environment. The Selected RA for remediation of soil at Site 61/104 (PICA-102) consisted of excavation and disposal of soil from two Areas of Attainment, (AAs), AA104SS-1 and

AA104SS-2. Approximately 54 cubic yards of contaminated soil was excavated, comprising an area of approximately 1,242 square feet. The remaining AAs for soil were addressed through implementation of LUCs, which include maintenance of existing ECs (e.g., vegetative cover).

The Selected RA for sediment at Site 61/104 (PICA-102) consists of enforcing LUCs. The property will be subject to access restrictions designed to prevent disturbance of the existing soil cover and to ensure no residential use of the property that results in unacceptable risk.

The LUC objectives are to:

- Prohibit the development and use of the property for residential housing, elementary and secondary schools, child-care facilities and playgrounds that result in unacceptable risks
- Maintain the integrity of engineering controls
- Control excavation at the Site through coordination with both Picatinny Environmental and the Safety Office.

The Selected RA also involves performing any site maintenance required to maintain the protectiveness of the RA. LUCs for soil and sediment will be maintained until such time as contaminant levels allow for unrestricted use and unlimited exposure. This includes inspection to ensure integrity of vegetative cap and that warning signs are in good condition.

3.10.3 Current and Potential Future Use

Land use within both Sites is industrial. Buildings 162, 171, and 176 are located within Site 61/104 (PICA-102) and are currently used to support both administrative functions and propellant analysis at PICA. Additionally, the area east of Building 176 is used for employee parking. Even though GPB and Robinson Run are immediately adjacent to Site 61/104 (PICA-102), no recreational activities are associated with either stream in this area of the facility. The future use of either Site is not expected to change from the current use (military/industrial).

3.10.4 Remedial Action Objectives

The RAOs are specific to the contaminated soil and sediment originating from Site 61/104 (PICA-102). Groundwater contamination at both sites will be addressed separately under the Mid-Valley ROD. The RAOs are to:

- Manage soils with calculated risk in the risk range of 1×10^{-6} to 1×10^{-4} following NCP guidance and the Geis Memorandum
- Maintain current land use (industrial) and current ICs
- Control disturbance and exposure to Site soils that could lead to unacceptable human health risks.

3.11 SITE 180 (PICA-093) – WASTE BURIAL AREA NEAR SITES 19 AND 34

The following sections are summarized from Sections 2.2.2, 2.4, 2.6, and 2.8 of the Final Site 180 (PICA-093) ROD dated September 2007 (U.S. Army 2007c) and the Remedial Action Work Plan (ARCADIS 2007b). The Site 180 (PICA-093) annual site certification, inspection forms, figure, and photos are presented in **Appendix M**.

3.11.1 Background

According to the Phase I RI Report, it is believed that Site 180 (PICA-093) was used as an unregulated landfill in the 1960s and 1970s. The original boundaries of Site 180 (PICA-093) included several piles of debris containing railroad ties, concrete rubble, scrap metal, and tires (Dames and Moore 1998). The lateral extent of Site 180 (PICA-093) was increased since the completion of the Phase I RI Report to include additional piles of debris and waste material in the vicinity of the original site boundaries.

3.11.2 Scope and Role of Response Action

The remedial alternative has been selected for soil, sediment, and surface water at Site 180 (PICA-093). Based on the results of the site investigations and the human health and ecological risk assessments, COCs were not identified for subsurface soil and sediment; therefore, subsurface soil and sediment do not pose unacceptable risks to human health and the environment and do not require remedial action. Consequently, the Selected Remedy addresses the COCs, which were identified in surface soils and surface water only. Groundwater in Area C (which contains Site 180) is being addressed under a separate action. The selected remedial action for Site 180 (PICA-093) is designed to provide protection to human health and the environment.

The remedial action for the Site consists of enforcing permanent ICs and implementing land use restrictions to protect any land users from potential exposure to the Site 180 (PICA-093) contaminants that pose an unacceptable risk. Because contamination would remain in place under this remedial action, LUCs to ensure human health protectiveness are required. The property is subject to access restrictions designed to prevent disturbance of an existing soil cover and ensure no residential use of the property that results in unacceptable risk. Land use is restricted to use by hunters under controlled conditions or other authorized personnel. The LUC objectives are to:

- Maintain a land use that is consistent with the risk assessment; that is, current outdoor maintenance workers and hunters, future industry/research workers, and future construction/excavation workers
- Prohibit the development and use of the property for residential housing, elementary and secondary schools, child care facilities and playgrounds that result in unacceptable risk
- Maintain the integrity of the existing soil cover.

LUCs will be maintained until such time as contaminant levels allow for unrestricted use and exposure. This includes inspection to ensure that current land use of the site has been maintained and warning signs are in good condition.

3.11.3 Current and Potential Future Uses

Site 180 (PICA-093) is currently part of Hunting Area 18 and is used for small game (primarily pheasant) and deer hunting. Access for hunting is controlled by PICA. Because this area is used primarily for pheasant hunting, potential exposure to Site 180 (PICA-093) constituents is limited to a few days a year. Use of this area for hunting is expected to continue. With the exception of the cover system that covers a portion of Site 180 (PICA-093), no plans exist for changing Site 180 (PICA-093) land use at this time. There is no current or anticipated future use of groundwater at Site 180 (PICA-093). ROD for Site 34, the former Burning Grounds covers much of the PICA-093 Site. Several piles of debris containing railroad ties, concrete rubble, scrap metal, and tires were removed during the conduction of the remediation, documented in the LBG RAR.

3.11.4 Remedial Action Objectives

The RAOs for Site 180 (PICA-093) have been developed in such a way that attainment of these goals will result in the protection of human health, ecological receptors, and the environment. The RAOs are specific to the area of concern designated for Site 180 (PICA-093) and are designed to maintain an exposure scenario in which human health is protected.

The RAOs for Site 180 (PICA-093) are to:

- Protect industrial and recreational receptors from exposure to the Site 180 (PICA-093) contaminants that results in unacceptable risk
- Protect residential receptors from exposure to potential unacceptable risks from Site 180 (PICA-093) contaminants.

3.12 SITE 193 (PICA-193) – GREEN POND BROOK AND BEAR SWAMP BROOK

The following sections are summarized from Sections 2.2.2, 2.4, 2.7, and 2.9 of the Final GPB and Bear Swamp Brook (BSB) ROD dated December 2004 (U.S. Army 2004c) and the Removal Action Work Plan (Shaw 2007). The Site 193 (PICA-193) annual certification, inspection forms, figure, and photos are presented in **Appendix N**.

3.12.1 Background

GPB and BSB represent the longest surface water bodies at PICA. Numerous stormwater drainage structures exist on PICA, many of which flow directly into GPB/BSB, including drop inlets with underground conduits, open channels located along road shoulders, and overland flow channels. GPB has received waste from historical operations at PICA, including sewage and industrial wastewater discharges, storm runoff, and discharges from groundwater plumes.

Numerous swampy areas and wetlands exist within the valley and are associated with the poorly drained glacial deposit soils. GPB below Picatinny Lake flows through the center of the valley in a southwest direction. GPB turns to the southeast just before it exits PICA at the southern boundary.

BSB and the upper reaches of GPB in the study area flow through the industrial portion of PICA. There are numerous buildings that border both brooks. In the past, many of these buildings had drains that discharged directly to the brooks. Currently, waste discharges to BSB no longer occur. The primary sources of contamination in GPB/BSB are past industrial activities at adjacent sites and stormwater drainage. Past operational activities include production of explosives, rockets, munitions, propellants, pyrotechnic signals and flares, fuses, and metal components.

3.12.2 Scope and Role of Response Action

As outlined in the IRP at PICA, the overall environmental cleanup goal is to protect human health and the environment by eliminating or reducing to prescribed, safe levels any potential risks caused by the installation's past activities.

The remedial action at GPB/BSB was divided into four study areas, or Regions, based upon physical stream characteristics, proximity of industrial operations to the streams, and historic waste disposal documentation. The study area was divided into the following Regions:

- Region 1, GPB and Burnt Meadow Brook above Picatinny Lake
- Region 2, GPB below Picatinny Lake to the confluence with BSB
- Region 3, BSB from Area H to the confluence with GPB
- Region 4, GPB from the confluence with BSB to the southern boundary of PICA.

The remedial action conducted during 2007 targeted the sediment of Regions 2, 3, and 4 of GPB/BSB, which is affected by metals, PCBs, pesticides, and semivolatile organic compounds.

In Region 3, contaminated sediments were removed from two separate areas as part of the remedial action activities completed in September 2007. Approximately 185 tons of impacted sediments were excavated from the oil/water separator in the lower section of BSB and approximately 9 tons of impacted sediments were excavated from an unnamed tributary of BSB located within Site 128. Prior to 2007, two sediment removal actions were completed in 2000 and 2003 at Site 122 (Building 60) and the sediment retention basins at Site 193 which removed, in total, approximately 1,598 tons of impacted sediment.

In Regions 2, 3, and 4, the remedial activities included the collection and chemical analysis of both shallow and deep sediment samples, as well as the collection and biological analysis of sediment samples as part of a long-term monitoring program. The Focused Feasibility Study concluded that past activities at PICA did not impact Region 1 of GPB/BSB (IT Corporation 2001).

LUC inspection and maintenance are conducted to ensure that current land use of the site has been maintained and warning signs are in good condition.

3.12.3 Current and Potential Future Land Uses

GPB and BSB currently support fish and wildlife populations throughout PICA. GPB and its tributaries are the primary surface water transport bodies within PICA. The brooks flow between both the wooded and secluded areas of the installation, as well as the areas associated with industrial activities. Because PICA is still an active military installation, the majority of the land on either side of GPB/BSB is earmarked for military and industrial land use.

Recreational activities that surround GPB/BSB are limited as swimming is not permitted in the study area of either brook, and fishing is not permitted in BSB or the majority of GPB. However, fishing is permitted in Region 1 of GPB (north of Picatinny Lake) and a short section of GPB in Region 2 (Lyon's Pond, which is just below the outfall of Picatinny Lake). Because GPB joins the Rockaway River approximately one mile south of the Installation and flows to the Boonton Reservoir (the Reservoir serves as a water supply to Jersey City), at least a portion of PICA surface water is used for human consumption. The future use of either brook is not expected to change from current usage.

3.12.4 Remedial Action Objectives

The general RAOs for GPB/BSB are to prevent or mitigate further release of hazardous substances to the surrounding environment and to meet the established cleanup criteria and comply with ARARs. The RAOs for GPB and BSB were developed such that attainment of these goals will result in the protection of human health, ecological receptors, and the environment. The objectives are specific to contaminated surface water and sediment contained in GPB and BSB, although the RAOs associated with surface water will be eventually satisfied through remedial alternatives developed for contaminated sediment, and through site-specific FSs and decision documents developed for individual sites at PICA.

RAOs have been established for each Region by considering COCs, associated media, potential exposure pathways and receptors, ARARs, and other preliminary RGs.

The RAOs for Region 2 are to:

- Implement remedial alternatives that can effectively reduce the risks to potential ecological receptors caused by the COCs present at the areas of concern.
- Limit human exposure to elevated levels of contaminants in sediment and surface water. (NOTE: Based on a restricted use scenario, there is no unacceptable risk to human health in Region 2 from levels of contaminants in sediment or surface water).
- Protect areas downstream of Region 2 from migration of COCs at levels that could potentially impact ecological receptors.

- Avoid disturbance of aquatic habitat in Area G where impacts to ecological receptors are uncertain.

The RAOs for Region 3 are to:

- Mitigate the impact to ecological receptors in the sediment retention ponds and the area near Site 128.
- Avoid disturbance of high-quality habitat in Area H.
- Limit human exposure to elevated levels of contaminants in sediment and surface water. (NOTE: Based on a restricted use scenario, there is no unacceptable risk to human health in Region 3 from levels of contaminants in sediment or surface water).
- Prevent contaminants in Region 3 from impacting better quality aquatic habitat in Region 4.

The RAOs for Region 4 are to:

- Reduce risks to potential ecological receptors by implementing remedial alternatives for COC source areas selected through Site 34 and Site 20/24 FSs.
- Prevent contaminants in Region 4 from impacting better quality habitat off-site.
- Limit human exposure to elevated levels of contaminants in sediment and surface water. (NOTE: Based on a restricted use scenario, there is no unacceptable risk to human health in Region 4 from levels of contaminants in sediment or surface water).

3.13 AREA B (PICA-205) GROUNDWATER

The following sections are summarized from Sections 2.2.1, 2.4, 2.7, and 2.9 of the Final Area B (PICA-205) Groundwater ROD dated February 2009 (U.S. Army 2009a) and from the RD (ARCADIS 2008f). The Area B (PICA-205) Groundwater annual certification, inspection forms, figure, and photos are presented in **Appendix O**.

3.13.1 Background

In 1940, Site 20 was undeveloped wetlands. By 1951, drainage ditches were present at the Site. Trailer sized structures, possibly for storage and observation of pyrotechnic displays, are evident in aerial photographs dated 1957. Activity at the Site is evident in a 1966 photograph in which smoke is present along the western edge of the Site. Sanitary waste, fly ash, ordnance, industrial waste, and sludge from the water treatment plant may have been dumped at Site 20/24 prior to 1972.

In 1940, Site 24 also was an undeveloped wetland area. Historical aerial photograph review indicates the slow expansion of the Site from two small clearings to the current landfill area of approximately 28 acres. Drainage ditches are evident in 1951 aerial photos, along with an access road constructed diagonally across the site. Debris piles and filling activities are evident in 1961 aerial photos. Filling and disposal operations are apparent in 1963 and 1966 aerial photographs. Records on land filling activities are scarce; however, sanitary waste, fly ash, ordnance, industrial waste, and water treatment plant sludge were reportedly placed at the Site until 1972.

A remedial action was implemented within Area B between July 2002 and August 2003 to address contaminated soil at Site 20/24, under a 2001 ROD (U.S. Army, 2001).

3.13.2 Scope and Role of Response Action

As outlined in the IRP for PICA, the overall environmental cleanup goal is to protect human health and the environment. The remediation of Area B groundwater is part of a comprehensive process currently underway to meet the IRP goals for PICA.

The remedial action for Area B groundwater is primarily targeted at the unconfined aquifer, which is impacted by low concentrations of VOCs dissolved in groundwater. In accordance with the ROD (U.S. Army 2009a) for Area B, the selected RA, Expedited *In Situ* Enhanced Bioremediation, was implemented to address the groundwater VOCs. The following activities were conducted in 2008 as part of the RA:

- ***Pre-Design/Construction Well Installation and Sampling***—In April 2008, 12 monitoring and injection wells were installed at Area B (PICA-205). In May 2008 the 12 new wells and 14 existing wells were sampled to confirm site conditions and finalize the layout of the injection lines.
- ***Installation of Remaining Injection Wells***—In August 2008, an additional 10 injection wells and 3 monitoring wells were installed to complete the remediation system.
- ***Baseline Sampling Event***—In September 2008 baseline conditions were documented.
- ***Injection Event***—Following the baseline sampling event, approximately 13,500 gallons of a 4.6% to 6.8% (by volume) molasses solution was injected into the unconfined aquifer via 14 injection wells positioned in three separate rows perpendicular to groundwater flow.

Additional follow on injection events have been conducted as necessary to continue stimulation of enhanced reductive dechlorination. The most recent injection was conducted in June 2013. Implementation of LUCs was also initiated as part of the RA. This includes inspection to ensure that current land use of the site has been maintained and warning signs are in good condition.

3.13.3 Current and Future Land Uses

The PICA master planning land use designation for the majority of the land within Area B is research, development, and testing. The portions of Area B that are still forested wetlands are

designated as wetland on the land use map. The site is used primarily for the testing of pyrotechnic flares, but is also designated as a safe haven parking area and is periodically used for hunting purposes. The Safe Haven Plan allows for temporary parking of explosives-laden vehicles and is large enough to accommodate two 18-wheel trucks. The site is located within Hunting Area 18. Hunting Area 18 is open to all game and hunting activities, which take place between early October and February. In addition to the current uses of Area B, the Army has installed a small weather station at Site 20/24. The weather station is situated on a 25-foot by 25-foot concrete pad.

The state of New Jersey has designated all groundwater within the State as a drinking water source. However, PICA has a centralized water distribution system and it has no current or future plans to use Area B Groundwater for any purpose. Area B is within a NJDEP approved CEA as described in a letter dated 29 July 2002 to the NJDEP. The CEA was established for all groundwater beneath PICA in both the bedrock aquifers, and unconsolidated sediment aquifers (which comprise the lower semi-confined, upper semi-confined and unconfined aquifers as discussed in this document). Thus, the CEA addresses all aquifers and COCs for Area B groundwater. The NJDEP approved the original CEA on 18 November 2002. Biennial certification for the CEA has since been conducted during 2008, 2010, 2012 and 2014.

The future land use of Area B is anticipated to remain unchanged from current land use activities. Area B will continue to be used for research, development, and testing activities by the Army.

3.13.4 Remedial Action Objectives

RAOs are based on human health and environmental factors that must be considered in the evaluation of RAs. Such objectives are developed based on criteria outlined in Section 121 of CERCLA and in the NCP.

Attainment of the RAOs will enhance protection of human health and the environment. The final selected remedial action will attain site cleanup levels for Area B groundwater that will be protective to the measure of all identified ARARs for currently identified at-risk receptors at all respective potential points of exposure. The RAOs for each COC at Area B are to:

- Prevent exposure to Area B groundwater COCs at levels above ARARs
- Protect uncontaminated groundwater for designated uses
- Minimize migration of contaminants to adjacent groundwater and surface water
- Restore contaminated groundwater to comply with its use designation.

3.14 AREA C (PICA-206) GROUNDWATER

The following sections are summarized from Sections 2.2.1, 2.4, 2.7, and 2.9 of the Final Area C (PICA-206) Groundwater ROD dated June 2009 (U.S. Army 2009b) and from the RD (Shaw 2009). The Area C annual certification, photos, and figure are presented in Appendix P.

3.14.1 Background

There was concern about groundwater contamination in Area C due to historical activities that have been conducted within the area, such as land filling (Site 25, also discussed in Section 3.5), dumping (Site 180, also discussed in Section 3.11), and testing (Site 19, also discussed in Section 3.2). Further, because the southern boundary is the point where some PICA groundwater flows off-post, the Army wanted to ensure that human health and the environment would be protected from unacceptable risk. The Army, as the lead agency, has investigated these concerns and worked with the USEPA and NJDEP to ensure the investigation was complete.

3.14.2 Scope and Role of Response Actions

As outlined in the IRP at PICA, the overall environmental cleanup goal is to protect human health and the environment. The remediation of Area C groundwater is part of a comprehensive environmental investigation and remediation process currently underway to meet the IRP goals at PICA.

The remedial action for Area C groundwater, which include LUCs and long-term groundwater monitoring is protective of human health and the environment because contaminant concentrations are expected to decrease over time, and a long-term monitoring plan has been implemented to monitor long-term behavior of the COCs. The long-term monitoring plan is the tool that will be used when the CERCLA five-year review is conducted to assess if the RA is operating correctly and is protective of human health and the environment. The CERCLA five-year review will document the effectiveness of the selected RA and identify any deficiencies of the RA that need to be corrected and any optimization to the monitoring program. The remedial action for Area C groundwater affords protection through the enforcement of LUCs. The LUCs have the following performance objectives:

- Prevent access or use of the groundwater until cleanup levels are met.
- Maintain the integrity of any current or future remedial monitoring system, such as monitoring wells.
- Maintain the existing CEA.
- Prohibit excavation without safeguards in all areas below the water table where groundwater contaminants exceed SCLs. An example of a safeguard is the Environmental Affairs Office's requirement to obtain a soil permit prior to initiation of projects requiring excavation.

In addition, the Army will perform annual physical inspections of the site to confirm continued compliance with all LUC objectives. The Picatinny Environmental Affairs Office will maintain the records of these inspections. These site inspections will include the following:

- **Condition of Monitoring Wells**—The 32 monitoring wells in the long-term monitoring program will be inspected for damage prior to each round of sampling. All significant deficiencies in the integrity of a well will be repaired and documented.
- **Condition of Site Fencing**—The perimeter fencing will be inspected and any necessary repairs will be performed. The inspection will also address vegetation that may compromise the integrity or effectiveness of site fencing.
- **Evaluation of Land Use**—The area will be inspected for any signs of land use inconsistent with the LUC objectives.

3.14.3 Current and Future Land Use

The predominant land use throughout Area C is industrial with small areas that are intermittently used for recreational purposes (hunting and softball). According to the PICA Vision Plan, the future land uses within Area C will continue to be for industrial and intermittent recreational activities; however, the potential of a public/private partnership leasing some of the land within Area C for use as an industrial park is a possibility. In the past year, a solar panel system has been installed at Site 34, The Lower Burning Ground. PICA is located over an aquifer with a designated use of Class IIA, current source of drinking water.

3.14.4 Remedial Action Objectives

RAOs for Area C Groundwater have been developed pursuant to exceedances of chemical-specific ARARs (New Jersey Groundwater Criteria/Project Quantitation Limits) and unacceptable risk identified for reasonably anticipated future use. Such objectives are developed based on criteria outlined in Section 121 of CERCLA and Section 300.430 (e)(2) of the NCP.

The RAOs for Area C groundwater have been developed in such a way that attainment of these goals will result in the protection of human health. RAOs for Area C groundwater are specific to groundwater contamination identified within Area C and along the southern boundary of PICA. The RAOs for Area C groundwater are to:

- Prevent human consumption of and contact with contaminated Area C groundwater
- Protect uncontaminated groundwater for designated uses
- Attain SCLs in Area C groundwater.

As an additional safeguard, the RAO to minimize human exposure to Area C groundwater will be met by the PICA CEA until such time that attainment of the SCLs and aquifer restoration are achieved.

3.15 SITE 78 (PICA-013) GROUNDWATER AND SURFACE WATER

The following sections are summarized from Sections 2.2.2, 2.4, 2.6, and 2.9 of the Final Site 78 (PICA-013) ROD dated March 2011 (U.S. Army 2011) and the RD (ARCADIS 2011). The Site

78 (PICA-013) annual site certification, inspection forms, figure, and photos are presented in Appendix Q.

3.15.1 Background

Environmental impacts at Site 78 (PICA-013) are associated with historical activities conducted at Building 91. The building was constructed in 1942 as a storehouse and supply building. This building also contained an optics laboratory in which operations were conducted between 1980 and the mid-1990s. Currently, an office space is located within Building 91 and the building's loading docks still receive materials.

Operations carried out in the former optics laboratory involved the storage and use of various chemicals. A hazardous waste storage area was located at the north end of the building. Two Number 2 fuel oil USTs were located on the southeast side of Building 91: one 3,000 gallon tank (UST 19) was situated approximately seven feet south of the loading dock area, and one 7,500 gallon tank (UST 81) was located approximately 60 feet east of the new utility room. The tanks were reported active until 1998 with no record of any spills and were subsequently removed.

3.15.2 Scope and Role of Response Action

The selected RA for remediation of groundwater at Site 78 (PICA-013) consists of MNA and the implementation of LUCs. Surface water at Site 78 will be monitored throughout the duration of the groundwater monitoring program. LUCs were implemented to control current and future activities that could cause exposure to environmental contaminants resulting in unacceptable risk to human health. This includes inspection to ensure that current land use of the site has been maintained.

3.15.3 Remedial Action Objectives

The RAOs are based on human health and environmental factors, which are considered in the formulation and development of RAs. Such objectives are developed based on the criteria outlined in Section 300.430(e)(2) of the NCP and Section 121 of SARA. The RAOs for Site 78 (PICA-013) have been developed in such a way that attainment of these goals will result in the continued protection of human health and the environment. The RAOs are specific to groundwater contamination and incidental surface water impacts originating from Site 78 (PICA-013). The RAOs are to:

- Prevent human exposure to contaminated groundwater that would cause unacceptable risk over the duration of the RA
- Achieve the more stringent of the Federal MCLs or NJGWQSs for the identified COCs in a reasonable timeframe, thereby restoring groundwater to its beneficial use as a drinking water source
- Maintain current land-use (industrial) and current ICs at Site 78 (PICA-013).

3.16 MID-VALLEY (PICA-204) GROUNDWATER

The following sections are summarized from Sections 2.2.2, 2.4, 2.7, and 2.9 of the Final Mid-Valley Groundwater (PICA-204) ROD dated September 2012 (U.S. Army 2012) and the RD (ARCADIS 2013). Mid-Valley Groundwater (PICA-204) annual site certification, inspection forms, figure, and photos are presented in **Appendix R**.

3.16.1 Background

The Mid-Valley Region consists of Study Areas F, G, H, and L, which are located in the central portion of PICA. These study areas are bounded to the northeast by Picatinny Lake, to the southwest by Area D, to the southeast by the crest of an unnamed ridge in Area L, and to the northwest by the western edge of Area H. The term “Mid-Valley Region” was assigned to designate the entire study area, which includes groundwater contamination that crosses Area boundaries. The Mid-Valley Region, or Mid-Valley, incorporates groundwater issues beneath many individual sites into a single unit, which are all addressed by the groundwater RA. Many of these individual sites are included elsewhere in this report and the photographs provided for those sites, as well as the three photographs in Appendix R, are from within the Mid-Valley study area. It is particularly noted that, consistent with agreements made with regulators, the RA for Mid-Valley Groundwater (PICA-204) includes responses for groundwater contamination at the DRMO (PICA-072, discussed in Section 3.6) and the Site 5 (PICA-162) and Site 6 (PICA-052) Shell Burial Areas.

3.16.1.1 Area F

Area F is approximately 77 acres in size and includes 17 sites. Many of the buildings in this area were originally developed to house propellant manufacturing and testing facilities and are currently inactive. Several of these structures have been converted to other uses in more recent years, including administrative offices. Two areas of concern were identified in the groundwater during the Phase I RI (Dames and Moore 1998). Elevated concentrations of explosives and VOCs were detected in groundwater at two sites (Sites 104 and 138).

3.16.1.2 Area G

Area G encompasses the DRMO Yard and six sites surrounding the DRMO Yard (see Section 3.6 for a discussion of the DRMO Yard). In general, this area has been used for a variety of industrial and storage uses.

3.16.1.3 Area H

Area H, commonly referred to as the Munitions Assembly Area, or the 200 Building Area, contains over 70 buildings grouped into 13 sites. In general, pilot-scale munitions production has taken place in Area H since it was first developed. The Phase II RI (ICF Kaiser 1999) identified Sites 64 and 131 as an area of concern due to elevated concentrations of chlorinated VOCs in groundwater. These two sites are upgradient from the southwestern end of Area G, where TCE was also reported during the Phase I RI (Dames and Moore 1998).

3.16.1.4 Area L

Area L consists of several different former explosives production, storage, and testing areas and contains buildings in the 1000, 1300, 1400, and 3100 number series. Area L 1000 series buildings were associated with the production of high explosives; 1300 series buildings were associated with nitroglycerin production; 1400 series buildings predominantly supported propellant production; and 3100 series buildings were used for storage and testing of ordnance items. There are 26 sites within Area L. Three areas of concern identified in Area L include: TCE contamination in the groundwater at Sites 161 and 18, with elevated concentrations in downgradient wells; elevated levels of RDX at Site 17; and TCE and tetrachloroethene groundwater exceedances at Sites 6 and 18. These three areas of concern are upgradient from Area F, where similar contaminants were detected during the Phase I RI.

Historical operations, such as presumed sporadic disposal of degreasing solvents associated with Building 3109 and operations at Building 241, are the likely source of the Robinson Run and western VOC plumes, respectively. The source of the northern VOC plume is unknown. The RDX plume likely originated from Building 1071 and/or 1033.

The Sites 5 and 6 Shell Burial Areas are also located in Area L. The Shell Burial Areas consist of three former explosion craters that were filled with approximately 25 tons of munitions debris released during the 1926 Naval Ammunition Depot explosion. The Navy continued to use these pits for disposal of material up until 1945, after which the craters were reportedly backfilled with as much as 20 feet of fill material.

3.16.2 Scope and Role of Response Action

The RA for Mid-Valley Groundwater (PICA-204) was designed to provide protection to human health and the environment.

The RA is a combination of RAs that address several groundwater contaminant plumes in the Mid-Valley Region: a set of VOC plumes, consisting primarily of TCE, and an explosives plume, consisting primarily of RDX. The Selected RA for remediation of VOCs in groundwater at Mid-Valley Groundwater (PICA-204) consists of *in situ* ERD with the implementation of an MNA program, which includes groundwater and surface water monitoring, and LUCs.

Injections of emulsified vegetable oil, a carbon substrate, have been performed in shallow and deep bedrock wells in the Robinson Run VOC plume near Building 3109 where the TCE concentration is greater than one part per million. The first of these emulsified vegetable oil injections was conducted during March 2013, with a second emulsified vegetable oil injection being conducted December 2013.

The Selected RA for remediation of RDX in groundwater at Mid-Valley Groundwater (PICA-204) consists of the implementation of an MNA program that includes groundwater and surface water monitoring and LUCs. The MNA program for RDX also includes monitoring of specific wells at the DRMO. Long-term monitoring of the Sites 5 and 6 Shell Burial Area is conducted

under the Selected RA for the VOC plumes to monitor for existing and future releases from these areas.

Surface water within the Mid-Valley Region will be monitored throughout the duration of groundwater monitoring as part of the MNA programs (for both VOCs and RDX) until the groundwater RAs result in COC concentrations within Robinson Run below the New Jersey Surface Water Quality Criteria, and RDX and 2,4,6-TNT concentrations below the Lifetime Health Advisory Level of 2.0 micrograms per liter ($\mu\text{g/L}$).

LUCs are implemented to control current and future activities that could cause exposure to environmental contaminants resulting in unacceptable risk to human health. Furthermore, potable supply well sampling is conducted as part of the LUCs for the VOC and RDX plumes.

The Selected RA also involves performing site maintenance required to maintain the protectiveness of the RA. LUCs for groundwater and surface water will be maintained until such time as contaminant levels are sufficiently reduced to allow unrestricted use/unlimited exposure. This includes inspection to ensure that current land use of the site has been maintained.

3.16.3 Current and Future Land Use

For the Mid-Valley Region, the Picatinny Real Property Vision Plan (AECOM 2015) identifies the following land uses: administration, community facilities, maintenance, professional/institutional, open space, and outdoor recreation. Military housing is also present in the area of the Mid-Valley contaminant plumes.

According to the Real Property Vision Plan, future land use for the Mid-Valley Region is anticipated to remain generally the same. Exceptions include a change in the existing use of property along Buffington Road in Area F from administrative use to community facilities (including construction of a new police station, fire station [already complete], and Child Development Center addition [already complete]), and a slight reconfiguration of the layout of existing land use in the vicinity of Reilly Road in Area H.

3.16.4 Picatinny Arsenal Drinking Water Supply

The groundwater underlying the Mid-Valley Region has been recognized by both the state and Federal governments as Class IIA. The primary designated use of Class IIA groundwater is “potable water and conversion (through conventional water supply treatment, mixing, or other similar technique) to potable water” [N.J.A.C. 7:9C-1.5(e)1]. PICA currently uses this groundwater in a manner consistent with the definition of Class IIA groundwater; i.e., the use of groundwater is not impacted by the contaminant plumes because conventional water supply treatment renders the water potable.

PICA maintains its own potable water supply and distribution network to serve its entire population. PICA currently uses two drinking water supply wells, 302D (in Area G) and 131 (in Area D). Two other supply wells, 410 and 430A, exist on PICA (in Area F) and are currently not in use (supply well 410 has been decommissioned). TCE is present within the raw water

pumped from these wells and well head treatment is ongoing. Typical TCE concentrations range between 6 and 9 µg/L for well 131 and 2 and 6 µg/L for well 302D. To remove TCE and other potential contaminants prior to distribution, PICA treats all of its potable water via oxidation with potassium permanganate, air stripping, pH adjustment, and chlorination. This treatment process results in safe drinking water with contaminant concentrations below the MCLs or no longer detected in the water.

The Mid-Valley Region is within a NJDEP-approved CEA. As described in a letter dated 29 July 2002 to the NJDEP, the CEA was established for all groundwater beneath PICA in both the bedrock and unconfined aquifers. Thus, the CEA addresses all aquifers and COCs for the Mid-Valley Region (PICA-204) groundwater. The NJDEP approved the original CEA on 18 November 2002. Biennial certification for the CEA has since been conducted during 2008, 2010, 2012, and for 2014. Upon establishment of a CEA, NJDEP identifies the region within the CEA as a well restriction area. The well restriction area functions as the IC by which potable use restrictions can be effected. As long as the CEA is in place, NJDEP may prohibit the installation and pumping of wells within this area.

3.16.5 Remedial Action Objectives

The RAOs for Mid-Valley Groundwater (PICA-204) have been developed to be protective of human health and to meet the identified ARARs. The RAOs are specific to the groundwater plumes identified for Mid-Valley Groundwater (PICA-204). The RAOs are to:

- Prevent human exposure to contaminated groundwater that would cause unacceptable risk over the duration of the RA.
- Achieve the more stringent of the Federal MCLs or NJGWQS for the identified COCs in a reasonable timeframe, thereby restoring groundwater to its beneficial use as a drinking water source. For RDX, which has no established MCL or NJGWQS, the Health Advisory Level will be used as the cleanup goal.

The U.S. Army and USEPA have agreed on a SCL of 2.0 µg/L for RDX and 2,4,6-TNT. This value is based on the Health Advisory Level and is being used for RDX and 2,4,6-TNT consistently across numerous USEPA Regions. While the Health Advisory Level of 2.0 µg/L is the selected SCL for RDX and 2,4,6-TNT at PICA, the Army recognizes that the State of New Jersey has non-promulgated interim specific standards of 0.5 µg/L for RDX and 1.0 µg/L for 2,4,6-TNT.

3.17 SITE 34 (PICA-002)

The following sections are summarized from Sections 2.2.2, 2.4, 2.7, and 2.9 of the Final Site 34 (PICA-002) ROD dated January 2005 (U.S. Army 2005) and the Phase II Remedial Action Work Plan (ARCADIS 2014a), and the Remedial Action Report (ARCADIS 2014b). Site 34 (PICA-002) annual site certification, inspection forms, figure, and photos are presented in **Appendix S**.

3.17.1 Background

Site 34 (PICA-002) has been used for the burning of explosive and explosive-contaminated material generated at PICA. Additionally, the Site has been used for the landfilling and storage of waste. Former operations in the Lower Burning Ground included the destruction of off-specification explosive constituents and “flashing” of contaminated metal and equipment (the decontamination of surfaces contaminated with explosive residue) within nine metal burning pans. These operations were regulated under the interim status within a Resource Conservation and Recovery Act Part B permit. The destruction and flashing of off-specification materials was discontinued in 2011, and the Site has since been inactive.

3.17.2 Scope and Role of Response Action

The remedial alternative selected to protect human health and the environment at Site 34 consisted of capping impacted soils with a hybrid asphalt and vegetated soil cap, land use restrictions, and long-term groundwater and surface water monitoring. Specific elements of the remedy included:

- Capping of all impacted soils and debris where contaminants are found at levels above RGs
- Long-term groundwater and surface water monitoring
- Maintenance and periodic inspections of the cap to ensure the continued protectiveness of the cap
- Land use restrictions and LUCs
- Wetland mitigation and enhancement.

Construction of the soil and asphalt cap and wetland mitigation work was completed during 2014. LUC inspection and maintenance are conducted to ensure integrity of soil and asphalt cap, that current land use of the site has been maintained, and warning signs are in good condition.

3.17.3 Current and Future Land Use

Site 34 (PICA-002) is currently capped with an asphalt and vegetated soil cover. Site 34 is also being as a solar panel field for the generation of electricity and construction of the solar panel field will begin in the 2015 calendar year.

The current use of Site surface waters and groundwater are limited. The surface waters of GPB currently support fish and wildlife populations throughout PICA. The potential for environmental contamination in GPB has been examined by the Army. All of GPB has been evaluated and cleanup of some sections of the Brook is being addressed under a separate ROD. Recreational activities that surround GPB are restricted, as swimming and fishing are not permitted in this stretch of the Brook. Groundwater use at the Site has been limited by the

NJDEP, which has declared the entire PICA Installation as a CEA. A CEA assignment is made when the State is aware that groundwater impacts have made groundwater use limited or unsafe for human consumption. This designation will remain in effect until groundwater beneath the Site meets State aquifer standards. Thus, the future use of Site surface water and groundwater is not expected to change from current use.

3.17.4 Remedial Action Objectives

The RAOs are based on human health and environmental factors, and provide the basis for the formulation and development of the selected remedy. The RAOs for Site 34 (PICA-002) as stated in the ROD (U.S. Army 2005) are to:

- Reduce the risk to the future on-site worker from exposure to surface soils with concentrations of COCs that exceed the respective RGs
- Reduce the risk to the future on-site worker from exposure to subsurface soils with concentrations of COCs that exceed the respective RGs
- Control erosion and transport of sediments from the Site to the surrounding drainage features
- Mitigate any potential ecological risk and protect the environment
- Prevent or mitigate impacts to groundwater that may result from the leaching of contaminants from the Burning Ground via groundwater infiltration
- Manage potential groundwater risk at points of compliance.

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4. NO FURTHER ACTION WITH MONITORING OF LAND USE SITES

As discussed in Section 1.2, inspections have been conducted at sites that have been designated as NFA sites with annual monitoring. The Site inspection form and photographs for the 25-NFA Sites and the 21-NFA Sites are included in Appendixes T and U, respectively. A list of all NFA with Monitoring of Land Use Sites is provided in **Table 2**.

Additional details of the 25-NFA Sites can be found in the Final ROD (U.S. Army 2014a). The inspection form for the 25-NFA Sites was approved by the USEPA via email on 1 October 2014 between Mr. Bill Roach (USEPA) and Mr. Ted Gabel (U.S. Army, PICA).

Additional details of the 21- NFA Sites can be found in the Final ROD (U.S. Army 2014b). The 21-NFA Site inspection form used the approved 25-Site Inspection Form format and was completed to ensure a baseline for the following year after the ROD is considered officially implemented.

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5. PICATINNY ARSENAL REAL PROPERTY VISION PLAN

As required by the regulations, Master Planning for Army Installations dated May 2005, PICA has developed a Real Property Vision Plan to guide the development, approval, and implementation of building projects at the Arsenal (AECOM 2015). This regulation provides for comprehensive planning at Army installations and not only allows, but requires, incorporation of existing land use and conditions into the Vision Plan.

The Picatinny Office of the Chief Engineer in the Public Works Directorate is in charge of the vision plan. PICA's most recent approved plan is dated November 2015. Part IV of the Vision Plan includes restraints due to environmental impacts. There are no planned changes in land use at any of the sites listed in **Table 1**. A number of buildings that are within CERCLA sites have been or are scheduled to be demolished. **Appendix B** contains a list of all buildings demolished at Picatinny during the 2015 calendar year.

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6. ANNUAL LAND USE CERTIFICATION

This section certifies that for all the Sites listed in Table 1, LUCs have been in effect throughout 2015; and are protective of human health and the environment.

6.1 ANNUAL SITE INSPECTIONS

As required, per the various LUC Design Documents listed in Table 1, annual inspections of each site were performed on 12-14, 19, 23, and 26 October 2015. Inspections were conducted by EA's subcontractor, Mr. John Vrabel of Sovereign. Upon completion of the site inspection, Mr. Ted Gabel of the Environmental Affairs Office of PICA confirmed the findings of the inspection by approving these reports and conducting specific-site visits confirming the status in December of 2015. Inspections were documented using forms that were developed and approved by the USEPA and NJDEP. The Annual Site Inspection forms and site photographs can be found in the site-specific Appendixes (**Appendixes C through U**).

6.2 CERTIFICATION OF POINT-OF-CONTACT

Mr. Ted Gabel is the designated point-of-contact for monitoring, maintaining, and enforcing the requirements in the site-specific LUC Design Documents listed in **Table 1**.

6.3 CERTIFICATION OF COMMITMENT TO FUNDING

EA has been awarded the Performance Based Contract CLINs for continued monitoring and maintenance until through 2016 with options through 2020. Funding for FY20 and beyond for the sites with long-term monitoring associated with the RODs is also estimated in the Army Environmental Database-Restoration (AEDB-R) database.

6.4 CERTIFICATION OF LAND USE CONTROL OBJECTIVES

The site-specific certifications and site-specific inspection forms included in **Appendixes C through S** provide the LUC objectives for each site and document the ICs or ECs that have been maintained to ensure each LUC objective is met and the LUCs remain protective of human health and the environment. The signature below documents review of the site-specific inspection forms and provides certification for all sites listed in Table 1.

I certify that: 1) the site-specific LUCs for the Sites listed in Table 1 have been in effect throughout 2015 and are protective of human health and the environment; and 2) the existing controls that prevent unrestricted use for the Sites listed in Table 2 remain in place, and the selected NFA remedy remains protective of human health and the environment.

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DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA,
cn=GABEL.TED.B.1228936304
Date: 2016.03.22 10:36:55 -0400

Ted Gabel
Project Manager for Environmental Restoration

Date

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7. CONCLUSIONS

This report provides documentation and certification of LUCs for Group 3 Sites (PICA-008) Groundwater and Surface Water, Group of 11 LUC Sites (PICA-020), Site 20/24 (PICA-066), Site 23 (PICA-065), Site 25/26 (PICA-067), Site 31/101 (PICA-072), Area D (PICA-076) Groundwater, Area E (PICA-077) Groundwater, Group 1 Sites (PICA-079) Groundwater, Site 61/104 (PICA-102), Site 180 (PICA-093), Site 193 (PICA-193), Area B (PICA-205) Groundwater, Area C (PICA-206) Groundwater, Site 78 (PICA-013), Mid-Valley (PICA-204), and Site 34 (PICA-002).

The following conclusions are provided based on the results of the annual inspection conducted by EA and awareness of the PICA operations through the PEMS process:

- There has been no significant disturbance to the vegetative or asphalt covers present at Site 20/24 (PICA-066), Site 23 (PICA-065), Site 61/104 (PICA-102), Site 25/26 (PICA-067), Site 31/101 (PICA-072), Site 34 (PICA-002), and the Group 1 Sites (PICA-079). Insignificant disturbance include installation of a bird feeder post, telephone poles, and emergency utility lines. These Sites include specific areas designated as vegetative or asphalt soil covers in the applicable ROD, RD, or specifically the remedial action report.
- There were no vegetative disturbances that would have constituted a change in land use at the Group of 11 LUC Sites (PICA-020).
- There were no soil disturbances that constitute a change in land use within Group 3 Sites (PICA-008), Site 23 (PICA-65), Site 20/24 (PICA-66), Site 25/26 (PICA-067), Site 31/101 (PICA-072), Area D (PICA-076) Groundwater, Area E (PICA-077) Groundwater, Group 1 Sites (PICA-079), Site 61/104 (PICA-102), Site 180 (PICA-093), Site 193 (PICA-193), Area B (PICA-205) Groundwater, Area C (PICA-206) Groundwater, Site 78 (PICA-013), Site 34 (PICA-002), and Mid-Valley (PICA-204).
- There were no changes to land use for sites within the 25-NFA and 21-NFA Sites provided in **Table 2**.

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- . 2007b. Final Remedial Action Work Plan. Site 180 (PICA 093) Waste Burial Area. October.
- . 2008a. Final Remedial Action Work Plan, PICA 020 Group of Sites. October.
- . 2008b. Final Remedial Design, Area D Groundwater. July.
- . 2008c. Final Remedial Design Addendum 01, Land Use Control Plan for Area D Groundwater. July.
- . 2008d. Final Remedial Design, Area E Groundwater and Site 22. June.
- . 2008e. Final Remedial Action Work Plan, Sites 61 and 104 (PICA 102) - Sanitary Landfill and Dredge Pile. November.
- . 2008f. Final Remedial Design Area B (PICA 205) Groundwater. October.
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- . 2010b. Final Remedial Action Work Plan, Group 1 Sites (PICA 079). September.
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———. 2004b. Final Site 23 Post Farm Landfill Record of Decision. August.

———. 2004c. Final Green Pond Brook and Bear Swamp Brook Record of Decision. December.

- . 2005. Final Site 34 The Burning Ground Record of Decision. September.
- . 2007a. Final Site 25/26 Record of Decision. January.
- . 2007b. Final Area E Groundwater and Site 22 (Building 95 Impoundment Area) Record of Decision. July.
- . 2007c. Final Site 180 (PICA-093) Record of Decision. September.
- . 2008a. Final PICA-020 Record of Decision. February.
- . 2008b. Final Sites 61 and 104 (PICA-102) Record of Decision. October.
- . 2008c. Final Site 31/101 (PICA-072) Record of Decision. November.
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Tables

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**Table 1. Land Use Control Design Documents
Picatinny Arsenal, New Jersey**

Site Name	Site Number	PICA Site Number	LUC Design Document	Date of ROD Signature		LUC Attachment Number
				U.S. Army	USEPA	
Group 3 Sites--Inactive Rocket Test Area	--	8	Final Remedial Action Work Plan, Group 3, Site 2 (PICA-008). January.	7/8/2010	8/2/2010	C
Group of 11 LUC Sites	19	20	Final Remedial Action Workplan, PICA-020 Group of Sites, October 2008	7/3/2008	9/30/2008	D
Former Pyrotechnic Testing Range	20/24	66	Land Use Control Implementation Plan (LUCIP) for Site 20/24, November 2001	5/29/2002	6/4/2002	E
Post Farm Landfill	23	65	Long Term Monitoring Plan and Land Use Control Remedial Design for Site 23 (PICA-065), December 2006	9/3/2004	12/20/2004	F
Former Sanitary Landfill and Dredge Pile	25/26	67	Final Remedial Action Work Plan Site 25/26 (PICA-067), July 2007	1/26/2007	7/3/2007	G
Former Defense Reutilization Marketing Office (DRMO) Yard and Former Gas Station	31/101	72	Final Remedial Action Work Plan, Site 31/101 (PICA-072), Former DRMO Yard and Former Gas Station. June.	12/5/2008	6/9/2009	H
Area D Groundwater	37	76	Draft Final Remedial Design, Addendum 01, Land Use Control Plan - Area D Groundwater, August 2007	4/14/2004	9/22/2004	I
Area E Groundwater	38/22	77	Draft Final Remedial Design - Area E Groundwater & Site 22, August 2007	7/24/2007	9/28/2007	J
Group 1 Sites	--	79	Final Remedial Action Work Plan, Group 1 Sites (PICA-079). September.	7/8/2010	8/2/2010	K
Building 162, 163, 171, 176	61/104	102	Final Site 61 and 104 (PICA-102) Remedial Action Workplan, November 2008	11/7/2008	3/17/2009	L
Waste Burial Area Near Sites 19 and 34	180	93	Final Remedial Action Work Plan Site 180 (PICA-093), October 2007	9/17/2007	9/28/2007	M
Green Pond Brook and Bear Swamp Brook	193	193	Bear Swamp Brook Oil/Water Separator and Tributary Stream Sediment Remvoal Action Work Plan, March 2007	1/4/2005	7/18/2005	N
Area B Groundwater	--	205	Final Remedial Design, Area B (PICA-205) Groundwater, October 2008	2/25/2009	4/1/2009	O
Area C Groundwater	--	206	Final Long Term Monitoring Plan and Land Use Control Remedial Design for Area C Groundwater. October.	9/17/2009	9/23/2009	P
Area P Groundwater	78	13	Final Remedial Design for Groundwater and Surface Water, Area P - Site 78 (PICA-013), August 2011	3/23/2011	7/5/2011	Q
Mid-Valley Groundwater	--	204	Final Remedial Design for Mid-Valley Groundwater (PICA-204), April 2013	2/28/2013	4/8/2013	R
Site 34 (PICA-002)	34	2	Final Phase II Remedial Action Workplan, Site 34 (PICA-002) April 2014	2/16/2005	9/8/2005	S

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**Table 2 No Further Action with Monitoring of Land Use Sites
Picatinny Arsenal, New Jersey**

Site Name	Site Number	PICA Site Number	LUC Design Document	Date of ROD Signature		LUC Attachment Number
				U.S. Army	USEPA	
25 NFA Sites	--	--	No Further Action with Monitoring of Land Use Record of Decision for Sites Within PICA 001, 006, 022, 085, 143, 163, 171, 192, and 199 and No Further Action for PICA 146	3/20/2014	5/8/2014	T
Guncotton Line	16	6				
Northern Tetryl Pits	17	1				
Southern Tetryl Pits	18	1				
Storage Tanks (Building 553)	32	73				
Storage Tanks (Former Building 527A)	33	74				
Nitroglycerin Processing Area (Former 1360s Buildings)	35	21				
Former 90-Day Waste Accumulation Area (Building 507)	46	85				
Still House and Hazardous Waste Storage Tank (Former Buildings 519 and 519A)	50	22				
Steam and Power Plant (Former Building 506)	63/65	47				
Rocket Motor Assembly Area (Building 1301)	91	163				
Post Engineering Maintenance Shop (Building 501)	97	140				
Propellant Plant (Former Building 511)	105	142				
Ordnance Facilities and Flare Testing Laboratory	108	143				
Poach House (Former Building 520)	147	64				
Nitrocellulose Production Facility (Former Building 527)	148	148				
Propellant Plant (Former Building 555)	150	150				
Nitration Building (Former Building 1031)	161	172				
Buildings 1070, 1071, and 1071C	162	173				
Storage Magazines (Buildings 1354, 1357, and 1359)	166	174				
Former Buildings 1400, 1402, and 1403	168	168				
Propellant Plants (Buildings 1408, 1408A to C, 1409, and 1411)	169	169				
Ordnance Facilities (Buildings 3106, 3109, and 3111)	171	171				

**Table 2 No Further Action with Monitoring of Land Use Sites
Picatinny Arsenal, New Jersey**

Site Name	Site Number	PICA Site Number	LUC Design Document	Date of ROD Signature		LUC Attachment Number
				U.S. Army	USEPA	
Refrigeration and Inert Gas Plant (Former Building 523)	184	156				
Apple Tree Recreational Area	189	192				
Abandoned Pistol Range and Former Manure Dumping Area	199	199				
21 NFA Sites	--	--	No Further Action with Monitoring of Land Use Record of Decision for PICA-096 (Sites 10, 27, 69, 117, 119, 120, 121, 123, 134, 136, 145, 164, 172, 174, 175, 176, 177, 185, 186, and PICA Site 208) and No Further Action for PICA-096 (Site 60)	12/4/2014	3/6/2015	U
Building 92, Surveillance Laboratory	69	94				
Building 22, Former Precision Machine Shop	117	96				
Building 64, Former Metal Plating Shop	123	98				
Photography Laboratory	60	101				
Building 447, Explosives and Propellant Mixing Area	145	114				
Building 302, Service Shop	134	117				
Building 355, Metallurgy Laboratory	136	119				
Building 350, Concepts and Application Laboratory	185	188				
Building 3801, Helicopter Support Facility	175	158				
Building 172, Parking Area Across from Building 3328	172	159				
Building 3420, Old Sewage Treatment Plant	174	161				
Building 3316, Firehouse	186	189				
Little League Baseball Field	176	176				
Sanitary Sewer Line Breaks/Leaks	177	177				
Chemical Burial Pit	10	56				
Building 1217, General Purpose Magazine	164	183				
Former Building T-90, Salt Storage Area	27	69				
Buildings 46, 47, and 48, Storage Magazines	119	185				
Building 50, Storage Magazine	120	186				
Building 57, Storage Magazine	121	187				
Former Dog Pound	208	NA				

Appendix A

**Picatinny Arsenal Soil Management Standard Operating
Procedure Protocol Summary and Requirement for a Soil
Management Plan**

Completed Site Construction Managers Statements for 2015

**Completed Excess Soil Management Manifest and
Records for 2015**

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**Picatinny Arsenal Soil Management Standard Operating
Procedure Protocol Summary and Requirement for a Soil
Management Plan**

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SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Date

Picatinny Arsenal Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
- Excess soil must be transported from the construction site to a designated Installation storage area. Construction managers must forward a completed **Excess Soil Manifest and Record Document (Attachment 3)** to EAD and contact Elaine Comings @ ext. 8010 for instructions on where to transport excess material.
- In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC must be included.

EXCESS SOIL MANAGEMENT

Manifest and Record

PROJECT NAME: _____

DPW PM: _____

SITE CLEARANCE #: _____

CORPS PM: _____

CONTRACTOR PM: _____

DATE: _____

LOCATION OF PROJECT _____

LOCATION OF EXCAVATION _____

PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ NO _____

SOIL IS SOLID WASTE: YES _____ NO _____

Appendix A to Section 00800

**Picatinny Arsenal
Environmental Affairs Office**

Soil Management SOP Protocol Summary and

Requirement for a Soil Management Plan

1. Purpose

This SOP protocol summary sheet provides contractors, information and requirements regarding Picatinny's soil management policies. The contractor shall comply with all the requirements of this SOP.

Picatinny is listed as a U.S. Environmental Protection Agency (USEPA) Superfund site and is federally mandated to address soil and groundwater contamination identified at the installation. Many areas of the base have been investigated and contain levels of contamination requiring remediation. In addition, Picatinny history prevents us from clearly stating that any area is free from historical release of chemicals to the environment. Consequently, excavated or disturbed soils must be properly managed to minimize potential risk to the Picatinny community as well as ensure compliance with Federal and State regulatory requirements.

This summary sheet identifies the general soil management and environmental protection considerations that must be addressed when soils at Picatinny Arsenal are disturbed during construction activities. Failure to comply with Picatinny's required soil management policies may result in a Notice of Violation (NOV) with associated penalties.

2. Scope

This document briefly summarizes requirements for soil covering, soil movement and soil management activities associated with the contract's construction activities at Picatinny.

3. General Procedures

Pre-Construction Requirements and development of a Soil Management Plan:

During the design process for this contract, the Environmental Affairs Office determined that site did not require additional sampling before construction.

The project is within an area that has been either investigated and the human health risk assessment was determined that the exposure for a construction worker to the level of contaminants in soils is acceptable or the project site did not require an investigation because no record were found during the Site Investigation Process under the Installation Restoration Program that an investigation was warranted.

The contractor must develop a Soil Management Plan consistent with the information provided below for approval by the Environmental Division Office at Picatinny through New York Corps of Engineer Contracting Officers Representative (COR.)

Components of a Soil Management Plan

- If excess excavated soils are generated during construction activities and are not be used on site, the contractor shall determine how the soils can be re-used at other locations at Picatinny. To do this he must sample and analyze the following the appropriate New Jersey Sampling and Analytical Protocols outlined Field Sampling Procedure Manual –specifically Section 6.6 (August 2005) an/or consistent with 7:26E-6.4 of NJ Tech Rules as follows:

“;, the soil shall be sampled in accordance with all applicable requirements at N.J.A.C. 7:26E-1, 2, 3.4, and 3.6, at the following frequencies:

- i. Field screening methods, if available pursuant to N.J.A.C. 7:26E-2.1(b), shall be used to determine sample locations. Each 20 cubic yards of soil shall be screened with borings or test pits throughout the depth of the soil pile, at two foot intervals. Two samples shall be collected for laboratory analysis for the first 100 cubic yards of excavated material and one sample for each additional 100 cubic yards; or
- ii. If contamination is not detectable by field screening methods, samples shall be collected for laboratory analysis from mid-depth in the pile at a frequency of one sample per 20 cubic yards for the first 100 cubic yards of soil and one sample for each additional 100 cubic yards; and
- iii. For quantities of soil greater than 1,000 cubic yards, a lower sampling frequency may be acceptable, subject to prior Departmental approval pursuant to N.J.A.C. 7:26E-1.6(d);”

The Soil Management will be used to obtain approval by the NJDEP of a lower sampling frequency as so the contractor find desirable

The plan must include the analysis for metals , semi volatiles and explosive parameters as consistent with method defined here:

1. Target Compound List SVOCs+20 Method 8270C or an appropriate alternative method,
2. Target Analyte List TAL Metals 6010B/7471A or an appropriate alternative method
3. Explosives list Method 8330/8332 or an appropriate alternative method

The sampling must be done by appropriate personal. The laboratory must be certified by the NJDEP-certified laboratory for the method chosen. Sample analysis will be performed by a NJDEP-certified laboratory, to be determined.

Sample containers and trip blanks will be provided by the contracted laboratory. Internal laboratory QA/QC will be performed according to required NJDEP laboratory QA/QC. The laboratory shall provide as a final report reduced-data deliverables as per N.J.A.C 7:26E Appendix A, Section M and N.

Each of the contractor’s site superintendent(s) shall sign and submit to the COR the **Site Construction Manager’s Statement (Attachment 3)**.

A report with data must be provided that allow a determination to be made for the appropriate reuse of the excess soils.

Plan must contain provisions that excess soil that cannot be utilized at the project site (ie. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) shall be properly transported and stockpiled for future use or disposal at designated final stockpile area(s). The contractor may temporarily stockpile soil at the project site prior to transporting to final stockpile area(s); however, temporary stockpiles shall be utilized on site or transported to final stockpile location(s) within 90 days. Stockpiled soil shall be placed on and covered with plastic sheeting.

The contractor shall request, in writing, that the COR provide exact locations of final stockpile area(s) 14 days prior to the needed soil transportation date. Excess soil shall be segregated into stockpiles of satisfactory and unsatisfactory backfill material, and kept segregated throughout the soil transporting and final stockpiling process.

The contractor shall provide immediate notification through the COR to the EAO office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on and covered with plastic.

The contractor shall transport excess soil from the construction site to final stockpile storage area(s). The contractor shall forward a completed **Excess Soil Manifest and Record Document (Attachment 2)** through the COR to EAO 14 days prior to transporting excess soil. The contractor shall stockpile excess soil at the final stockpile area(s) to a minimum height of 10 foot high stockpile(s) to maximize space.

In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification of the source location. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC shall be included.

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Completed Site Construction Managers Statements for 2015

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SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

PAUL KIMBALL - PIE

Date 24-SEPT-14

<u>Name of Project as taken from PEMS</u>	STORM RELATED - EVALUATE WATER INTRUSION.
<u>IJO: 23-10095-0 if applicable</u>	40K-13001-3
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4517

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: REVISED STORM DRAINAGE

SITE CLEARANCE #:

DATE: 24-SEPT-14

DPW PM:
CORPS PM: N/A
CONTRACTOR PM: CHRIS MORGAN

LOCATION OF PROJECT B341D
LOCATION OF EXCAVATION 341D - ROADS ADJACENT
PROJECTED/ACTUAL SIZE OF PILE ± 80 CUBIC YARDS

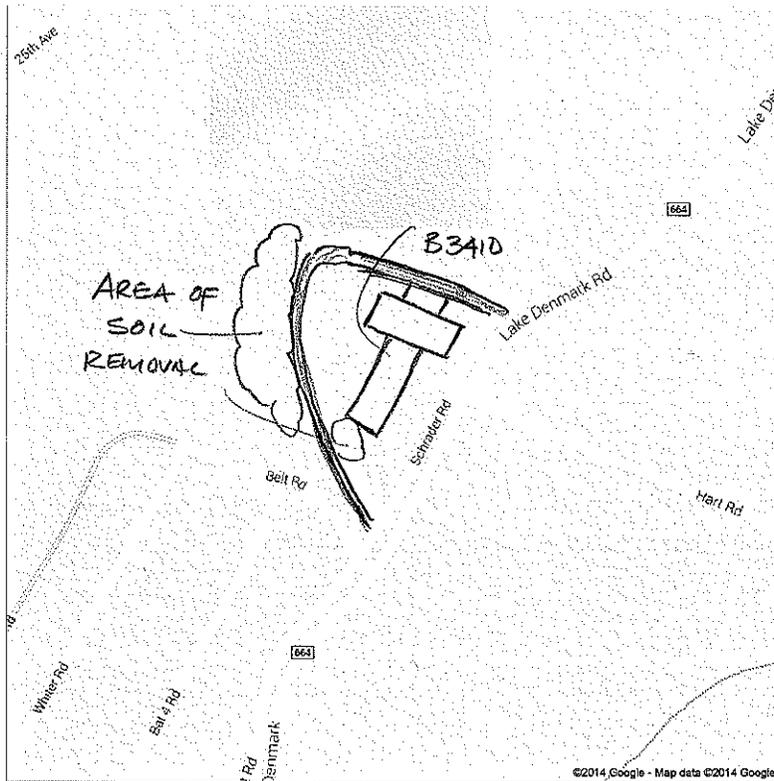
SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO SNAKE HILL ROAD STOCKPILE
LOCATION OF PILE "
DATE 1-OCT-14 AND 3-OCT-14
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES ✓ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

Google



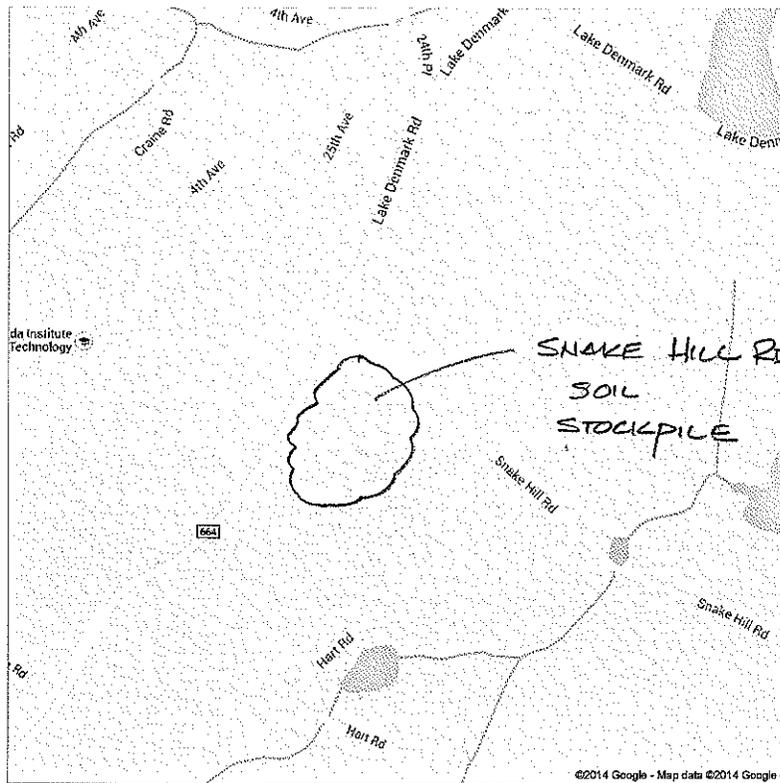
SOIL REMOVAL
LOCATION.

Showing results for Picatinny Arsenal
Search instead for Picatinny Arsenal

- A. **Picatinny Arsenal**
Route 15 North, Rockaway Township, NJ
(973) 724-4021
4.3 ★★★★★ 11 reviews

Google

Soil stockpile location at Snake Hill Road



SOIL DEPOSIT
LOCATION

Showing results for Picatinny Arsenal
Search instead for Picatinny Aresnal

- A. **Picatinny Arsenal**
Route 15 North, Rockaway Township, NJ
(973) 724-4021
4.3 ★★★★★ 11 reviews

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Jeffrey Frye, METC Facilities

Date 3 December 2015

<u>Name of Project as taken from PEMs</u>	Test Stand, 650 Test Area
<u>IJO: 23-10095-0 if applicable</u>	40C-11042-1
<u>SERVICE ORDER: if applicable</u>	
<u>ENV. PROJECT NO#: 1609 if applicable</u>	5052

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
- Excess soil must be transported from the construction site to a designated Installation storage area. Construction managers must forward a completed **Excess Soil Manifest and Record Document (Attachment 3)** to EAD and contact Elaine Comings @ ext. 8010 for instructions on where to transport excess material.
- In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC must be included.

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

DPW PM: _____

CORPS PM: _____

CONTRACTOR PM: _____

LOCATION OF PROJECT _____

LOCATION OF EXCAVATION _____

PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____

NO _____

SOIL IS SOLID WASTE: YES _____

NO _____

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Alex Laya 

Date 4/17/15

<u>Name of Project as taken from PEMs</u>	Preparation of Tree Memorial Site FY15, B.17
<u>IJO: 23-10095-0 if applicable</u>	23R-14011-4
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4527

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

N/A

DATE: _____

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

All Soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Alex Laya ALS

Date 4/17/15

<u>Name of Project as taken from PEMs</u>	Remove Road Behind Quarters 102
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B18546
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4716

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

N/A

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

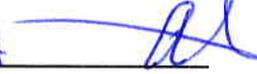
SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

All Soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Alex LAJA 

Date 5/21/2015

<u>Name of Project as taken from PEMs</u>	Rebuild the catch basin and replace the existing pipe, Main and Bott Roads
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B19855
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4763

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

N/A

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

All Soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Garrett Link

Date 22-Dec-14

<u>Name of Project as taken from PEMs</u>	B44 Replace Underground Conduit and Wiring for FA
<u>IJO: 23-10095-0 if applicable</u>	40E-15002-5
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4606

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
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- In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC must be included.

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: Replace Underground Conduit & Wire

SITE CLEARANCE #: _____

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

DATE: 22-Dec-14

LOCATION OF PROJECT B44 _____

LOCATION OF EXCAVATION Area between Tower B44 _____

PROJECTED/ACTUAL SIZE OF PILE 6 cubic yards of earth shall be excavated and then re-used for backfill. Soil shall be stored on site then re-used.

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____

SOIL IS SOLID WASTE: YES _____ **NO** _____

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Michael A. BLUE Planning/Estimating

Date 3/3/2015

<p><u>Name of Project as taken from PEMs</u></p>	<p># 2847 ^{B619 REPAIR/REUNITE} INTERIOR/EXTERIOR/ SITE</p>
<p><u>IJO: 23-10095-0 if applicable</u></p>	<p>40F. 12012. 2</p>
<p><u>SERVICE ORDER: if applicable</u></p>	<p>A 59948</p>
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p># 2847</p>

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

PAUL KIMBALL; PLANNER / ESTIMATOR

Date 24 - NOV - 14

<u>Name of Project as taken from PEMs</u>	REBUILD COVER OVER REGULATOR; INSTALL AIR
<u>IJO: 23-10095-0 if applicable</u>	27-14004-4
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	#4541

POTENTIALLY CONTAMINATED
SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: WERS demolition, site restoration DPW PM: Chris Barkocy
for proper drainage CORPS PM:
CONTRACTOR PM:

DATE: 30 Sep 2014

LOCATION OF PROJECT: footprint of former B1377

LOCATION OF PILE: footprint of former 3618

PROJECTED/ACTUAL VOLUME OF PILE (TONS/YDS): 144cy (8 Truckloads @ 18cy each)

DATE PILE EXCAVATED: 22-24 Sep 2014

DPW PM: Chris Barkocy DATE: 30 Sep 2014

SOIL HAS BEEN STORED AT: NA DATE: _____
DPW PM: _____

MAP MUST BE ATTACHED _____

EAD POC: _____

ENVIRONMENTAL OFFICE – NOT FOR USE BY DPW OR CONTRACTOR

DATE SOIL MANIFEST SUBMITTED _____

DATE PLAN APPROVED _____

DATE SOIL SAMPLED _____

DATE RESULTS MADE _____

ANALYSIS # _____

APPROVED EROSION CONTROL PLAN YES__ NO _____

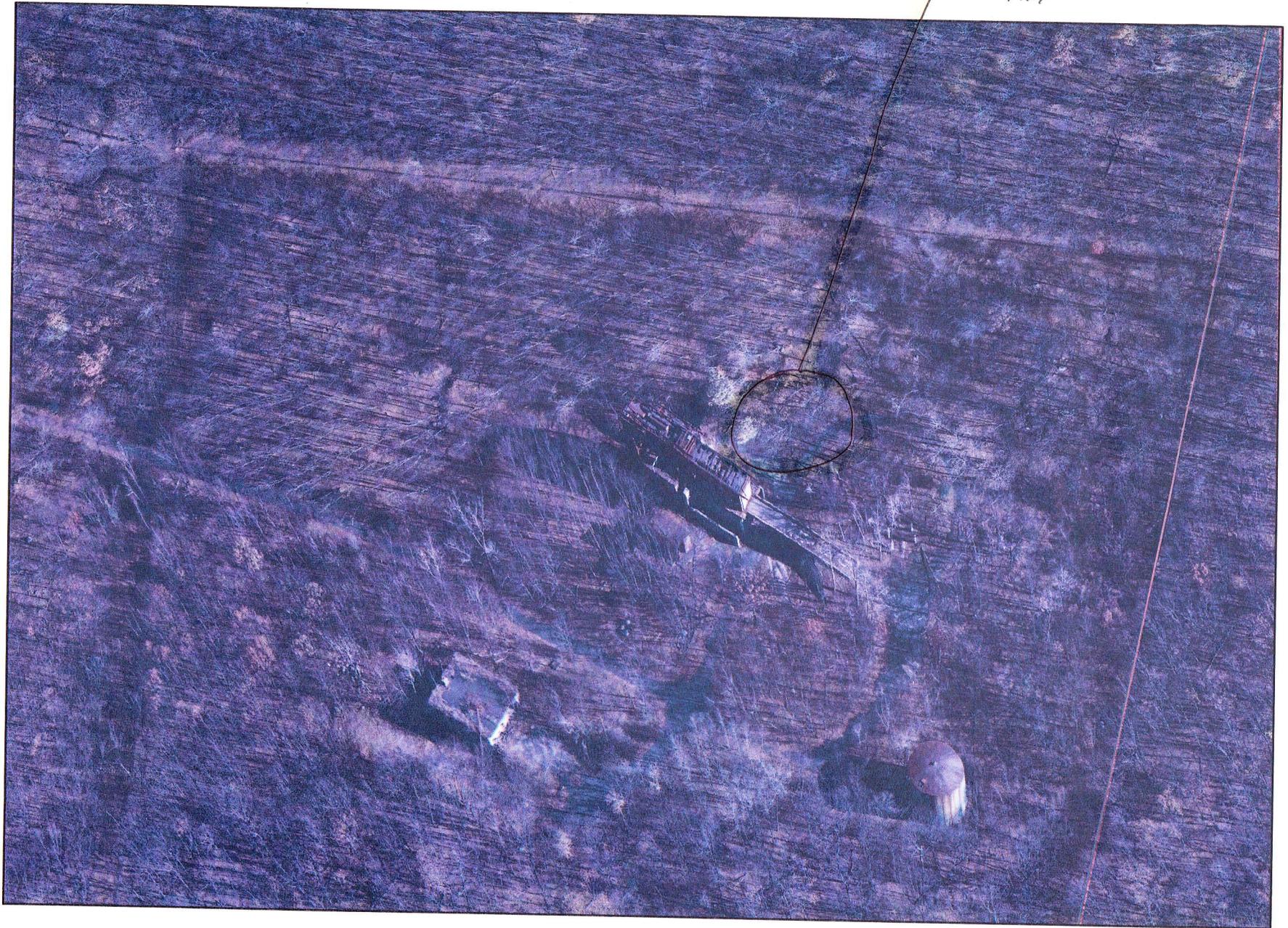
SOIL IS CLEAN _____

SOIL IS SOLID WASTE _____

SOIL IS HAZARDOUS _____

DATE AND # DIRECTIVE SENT TO DPW _____

Soils were
excavated from
this area





Soils were
deposited
to this
area

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Glenn Frantz

Date 7-29-15

<u>Name of Project as taken from PEMs</u>	B-3114 Brush and Tree cutting/Trimming Maintenance
<u>IJO: if applicable</u>	
<u>SERVICE ORDER: if applicable</u>	
<u>ENV. PROJECT NO#: 1609 if applicable</u>	#3674

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Jeffrey Frye, METC Facilities

Date 11 December 2015

<u>Name of Project as taken from PEMs</u>	Install Perimeter Fencing for G2 Range That Meet force Protection & Physical Security Requirements
<u>IJO: 23-10095-0 if applicable</u>	40F-16013-6
<u>SERVICE ORDER: if applicable</u>	
<u>ENV. PROJECT NO#: 1609 if applicable</u>	5066

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
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- In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC must be included.

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

DPW PM: _____

CORPS PM: _____

CONTRACTOR PM: _____

LOCATION OF PROJECT _____

LOCATION OF EXCAVATION _____

PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____

NO _____

SOIL IS SOLID WASTE: YES _____

NO _____

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Jeffrey Frye, METC Facility Manager

Date 14 Nov 2014

<u>Name of Project as taken from PEMs</u>	Complete the Install G-2 Small Arms Range - Parking
<u>IJO: 23-10095-0 if applicable</u>	40F-120432 Change Order #2 (G2 Road) Change Order #6 (Parking at G2)
<u>SERVICE ORDER: if applicable</u>	
<u>ENV. PROJECT NO#: 1609 if applicable</u>	3190 4503

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

DPW PM: _____

CORPS PM: _____

CONTRACTOR PM: _____

LOCATION OF PROJECT _____

LOCATION OF EXCAVATION _____

PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____

NO _____

SOIL IS SOLID WASTE: YES _____

NO _____

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Garrett Link _____

Date 23-Oct-14

<u>Name of Project as taken from PEMs</u>	B25 Remove Abandoned RR Track
<u>IJO: 23-10095-0 if applicable</u>	40C-12031-2
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	3069

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: Remove Abandoned RR Track

SITE CLEARANCE #: _____

DATE: 23-Oct-14

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____ B25 _____
LOCATION OF EXCAVATION Grass area and paved road way between B25 and B11
PROJECTED/ACTUAL SIZE OF PILE 1 cubic yard to remain on site to be reused

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

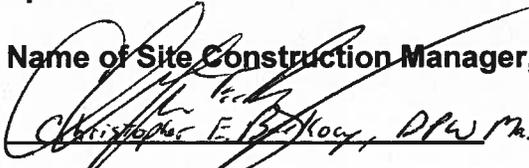
MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title


Christopher E. Berkoc, DPW Master Planning

Date 19 March 2015

<u>Name of Project as taken from PEMs</u>	Removal of Abandoned Steam line, 500 Area
<u>IJO: 23-10095-0 if applicable</u>	23-13007-3
<u>SERVICE ORDER: if applicable</u>	
<u>ENV. PROJECT NO#: 1609 if applicable</u>	3931

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Garrett Link _____

Date 21-Oct-14

<u>Name of Project as taken from PEMs</u>	B351 Upgrade to Generator
<u>IJO: 23-10095-0 if applicable</u>	45-14008-4
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4529

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: Upgrade to Generator

DPW PM:
CORPS PM:
CONTRACTOR PM:

SITE CLEARANCE #:

DATE: 21-Oct-14

LOCATION OF PROJECT B351 _____

LOCATION OF EXCAVATION Left side of the existing generator _____

PROJECTED/ACTUAL SIZE OF PILE 4 cubic yards/Soil shall be re-used for backfill and stored on
site

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____

SOIL IS SOLID WASTE: YES _____ **NO** _____

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Alex Long

Date 10/20/14

<u>Name of Project as taken from PEMs</u>	PREP LEVEL AN AREA AT B647 40 FOOT CONEX BOX
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B10366
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4549

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

N/A

DPW PM: _____

CORPS PM: _____

CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

All soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Alex Laya 

Date 10/28/14

<u>Name of Project as taken from PEMs</u>	B3324 - REMOVE ROCKS ALONG ENTRANCE OF PX
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B10644
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4555

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME:

SITE CLEARANCE #:

DATE:

N/A

DPW PM:

CORPS PM:

CONTRACTOR PM:

LOCATION OF PROJECT _____

LOCATION OF EXCAVATION _____

PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____

NO _____

SOIL IS SOLID WASTE: YES _____

NO _____

All soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

ALEX LAYA 

Date 10/29/14

<u>Name of Project as taken from PEMs</u>	PERFORM ROUTINE PROPERTY MAINTENANCE - GLADE AREA (3500)
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B10658
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4560

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME:

SITE CLEARANCE #:

DATE:

N/A

DPW PM:
CORPS PM:
CONTRACTOR PM:

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

All soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Alex Long *Alex*

Date 10/29/14

<u>Name of Project as taken from PEMs</u>	INVESTIGATE AND REMOVE UNUSED STEAM PITS ALONG FARLEY AVE
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B10654
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4561

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME:

SITE CLEARANCE #:

N/A

DPW PM:

CORPS PM:

CONTRACTOR PM:

DATE:

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

All soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Alex Long 

Date 11/25/14

<u>Name of Project as taken from PEMs</u>	INSTALL A GUARDRAIL AT BEAR SWAMP BROOK BY B25-N
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B12017
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4582

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
- Excess soil must be transported from the construction site to a designated Installation storage area. Construction managers must forward a completed **Excess Soil Manifest and Record Document (Attachment 3)** to EAD and contact Elaine Comings @ ext. 8010 for instructions on where to transport excess material.
- In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC must be included.

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME:

N/A

SITE CLEARANCE #:

DPW PM:

CORPS PM:

CONTRACTOR PM:

DATE:

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

All soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

KENNETH THOMAS TL, JOC 

Date 12/5/14

<p><u>Name of Project as taken from PEMs</u></p>	<p>B-151 HOWITZER PAD</p>
<p><u>IJO: 23-10095-0 if applicable</u> 477 100111</p>	
<p><u>SERVICE ORDER: if applicable</u></p>	
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p># 4584</p>

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Alex Laya

Date 2/4/15

<u>Name of Project as taken from PEMs</u>	REMOVE MT HOPE STEAM LINES IN THE 1300 AREA
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B15113
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4642

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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- In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC must be included.

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

N/A

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

DATE: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

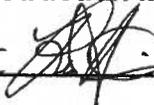
SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

All Soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

ROBERT AMAMI  Business Operations

Date 19 March 2015

<u>Name of Project as taken from PEMs</u>	Remove 3 deteriorated Steam pits, Vicinity of B119 remove related piping
<u>IJO: 23-10095-0 if applicable</u>	23-15056-5
<u>SERVICE ORDER: if applicable</u>	
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4624

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Alex Laya 

Date 3/31/15

<u>Name of Project as taken from PEMs</u>	Rebuild the wall behind Building 526
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B17609
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4689

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

N/A

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

DATE: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

All Soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Alex Laya 

Date 6/22/15

<u>Name of Project as taken from PEMs</u>	Address an issue with the hill eroding and depositing soil at and under catch system at the 62 Range
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B21276
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4821

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

N/A

DPW PM: _____

CORPS PM: _____

CONTRACTOR PM: _____

DATE: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

All Soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

HAYDEN KECK PROJECT MANAGER (FACILITIES SPECIALIST)

Date AUG 21, 2015

<u>Name of Project as taken from PEMs</u>	EXPAND AND RENOVATE EXISTING RV PARKING LOT (MWR)
<u>IJO: 23-10095-0 if applicable</u>	23-15088-5-J
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	ENV. PROJECT # 4926

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: EXPAND AND RENOVATE EXISTING RV PARKING
SITE CLEARANCE #: SEE ENV PROJ. 4926 DPW PM: HAYDEN KECK (MWR)
CORPS PM: NA
DATE: AUG 20, 2015 CONTRACTOR PM: ANDY DAVIS
LOCATION OF PROJECT RV PARKING LOT REILLY RD
LOCATION OF EXCAVATION SAME
PROJECTED/ACTUAL SIZE OF PILE N/A

SOIL HAS BEEN STORED AT N/A
LOCATION OF PILE N/A
DATE AUG 21, 2015
DPW PM HAYDEN KECK

SOIL HAS BEEN TAKEN TO N/A
LOCATION OF PILE N/A
DATE AUG 21, 2015
DPW PM HAYDEN KECK

MAP MUST BE ATTACHED SEE PEM SITE MAP IS ATTACHED.

SOIL IS CLEAN: YES N/A NO N/A
SOIL IS SOLID WASTE: YES N/A NO N/A

ALL SPOILS REMAIN ON SITE

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Alex Laga 

Date 9/25/15

<u>Name of Project as taken from PEMs</u>	B526 - Remove Weeds and Place Millings
<u>IJO: 23-10095-0 if applicable</u>	N/A
<u>SERVICE ORDER: if applicable</u>	B25505
<u>ENV. PROJECT NO#: 1609 if applicable</u>	4964

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME:

SITE CLEARANCE #:

N/A

DPW PM:
CORPS PM:
CONTRACTOR PM:

DATE:

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

All soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Donald Landi ^{JAL} (On behalf of Alex Lyue)

Date 10/26/15

<p><u>Name of Project as taken from PEMs</u></p>	<p>BACKFILL A SINK HOLE FORMING IN FRONT OF BLDG 816</p>
<p><u>IJO: 23-10095-0 if applicable</u></p>	<p>N/A</p>
<p><u>SERVICE ORDER: if applicable</u></p>	<p>B26773</p>
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p>5005</p>

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME:

SITE CLEARANCE #:

N/A

DPW PM:

CORPS PM:

CONTRACTOR PM:

DATE:

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

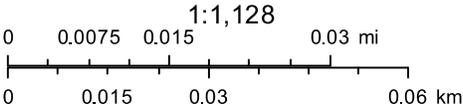
SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

All soil to remain on site

Map of Building 816 to show sinkhole



October 26, 2015



- MEC MD Finds
- All PTA MEC Results
- Buildings

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Chris Bar Kacy

Date 19 Nov 2015

<u>Name of Project as taken from PEMs</u>	<i>Tree Removal Behind B404</i>
<u>IJO: 23-10095-0 if applicable</u>	
<u>SERVICE ORDER: if applicable</u>	
<u>ENV. PROJECT NO#: 1609 if applicable</u>	<i>5039</i>

All Soil To remain on site.

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Alex Laya 

Date 12/14/15

<p><u>Name of Project as taken from PEMs</u></p>	<p>Pour concrete walkways in front of B1408C, B1417, B1420</p>
<p><u>IJO: 23-10095-0 if applicable</u></p>	
<p><u>SERVICE ORDER: if applicable</u></p>	<p>B29166</p>
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p>5064</p>

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

N/A

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

DATE: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

All Soil to remain on site

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Frank Langenecker

Date 19 May 2015

<p><u>Name of Project as taken from PEMs</u></p>	<p>Building 462 install Concrete Ramps & Sidewalk</p>
<p><u>IJO: 23-10095-0 if applicable</u></p>	<p>IJO # 40C-14099-4J</p>
<p><u>SERVICE ORDER: if applicable</u></p>	
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p>4608</p>

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

Ramy Lawandy, Engineer

Date 5/26/15

<u>Name of Project as taken from PEMs</u>	Bldg. 407 Renovation and Repair of Canopy
<u>IJO: 23-10095-0 if applicable</u>	40 E150045J
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	N/A

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

Will comply as project goes forward

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

JASON NEWMAN, PROJECT MANAGER 

Date 8/5/15

<p><u>Name of Project as taken from PEMs</u></p>	<p>Vactor Truck Offloading Station BLAG. 507#B SITE</p>
<p><u>IJO: 23-10095-0 if applicable</u></p>	
<p><u>SERVICE ORDER: if applicable</u></p>	
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p>4771</p>

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
- The POC's must provide immediate notification to the EAD office if any obvious signs of contamination (i.e. stains, odors and/or buried drums or containers) are encountered during excavation activities. Soils that appear contaminated should not be put back into the excavation. Those affected soils must be segregated and placed on/covered with plastic.
- Excess soil must be transported from the construction site to a designated Installation storage area. Construction managers must forward a completed **Excess Soil Manifest and Record Document (Attachment 3)** to EAD and contact Elaine Comings @ ext. 8010 for instructions on where to transport excess material.
- In general, soil piles must remain segregated according to Building or Site location and each stockpile must be staked, tagged and labeled for future identification. Information regarding the source location, date of excavation, date of sampling (if completed), estimated soil volume and the project POC must be included.

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

JASON NEWMAN, PROJECT MANAGER 

Date 8/5/15

<p><u>Name of Project as taken from PEMs</u></p>	<p>Vactor Truck Offloading Station BLAG. 507#B SITE</p>
<p><u>IJO: 23-10095-0 if applicable</u></p>	
<p><u>SERVICE ORDER: if applicable</u></p>	
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p>4771</p>

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

SITE CONSTRUCTION MANAGER'S STATEMENT

I have read or have read to me the Guidelines established in this SOP protocol summary. I certify to the best of my ability that the operation as described within this SOP protocol summary can be conducted in a safe, healthy and environmentally sound manner. I have ensured that all operators are trained and are familiar with the requirements of this SOP protocol summary and of the operation/activity. If deviations/alterations to the SOP are required, I will ensure that the operation is discontinued until the revised SOP is staffed for approval. Furthermore, if unexpected safety, health or environmental hazards are identified, I will ensure that the operation is discontinued until the hazard has been eliminated.

Name of Site Construction Manager, Title

Ramy Lawandy, Engineer

Date 5/19/14

<u>Name of Project as taken from PEMs</u>	Construct vestibule for ARMAGS, B31
<u>IJO: 23-10095-0 if applicable</u>	41-14026-4
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	N/A

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: _____

SITE CLEARANCE #: _____

DATE: _____

DPW PM: _____
CORPS PM: _____
CONTRACTOR PM: _____

LOCATION OF PROJECT _____
LOCATION OF EXCAVATION _____
PROJECTED/ACTUAL SIZE OF PILE _____

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____ **NO** _____
SOIL IS SOLID WASTE: YES _____ **NO** _____

Will comply as project goes forward

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager, Title

PAUL KIMBALL

Date 10-JULY-15

<p><u>Name of Project as taken from PEMs</u></p>	<p>REPLACE LOADING RAMP @ DOCK</p>
<p><u>IJO: 23-10095-0 if applicable</u></p>	<p>80-14013-4</p>
<p><u>SERVICE ORDER: if applicable</u></p>	<p>N/A</p>
<p><u>ENV. PROJECT NO#: 1609 if applicable</u></p>	<p>4483</p>

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager or POC, Title

Leon Weinglass

Signature of Site Construction Manager or POC

< Signed > Leon Weinglass

Date: 25-June- 2014

<u>Name of Project as taken from PEMs</u>	BLD 462 – Install Emergency Generator
<u>IJO: 23-10095-0 if applicable</u>	40C-14007-4
<u>SERVICE ORDER: if applicable</u>	N/A
<u>4183</u>	3225

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

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Name of Site Construction Manager or POC, Title

Leon Weinglass

Signature of Site Construction Manager or POC

< Signed > Leon Weinglass

Date: 28-August- 2014

<u>Name of Project as taken from PEMs</u>	Install gate, call box and flashing lights, B. 908
<u>IJO: 23-10095-0 if applicable</u>	27-13010-3
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: 1609 if applicable</u>	3773

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

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- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: Install gate, call box and flashing lights, B. 908 **DPW PM:** Leon Weinglass

SITE CLEARANCE #: _____

CORPS PM: _____

CONTRACTOR PM: _____

DATE: 28th August 2014

LOCATION OF PROJECT *Building 908* _____

LOCATION OF EXCAVATION *Open area adjacent to building 908 driveway.* _____

PROJECTED/ACTUAL SIZE OF PILE *15 cubic yards-projected.* _____

All excavated soil for trench will be back filled.

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____

NO _____

SOIL IS SOLID WASTE: YES _____

NO _____

SITE CONSTRUCTION MANAGER'S STATEMENT

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Name of Site Construction Manager or POC, Title

Leon Weinglass

Signature of Site Construction Manager or POC

< Signed > Leon Weinglass

Date: 29-August- 2014

<u>Name of Project as taken from PEMs</u>	Install gate, call box and flashing lights, B. 908
<u>IJO#: if applicable</u>	41-14015-4
<u>SERVICE ORDER: if applicable</u>	N/A
<u>ENV. PROJECT NO#: if applicable</u>	4192

Picatinny Arsenal

Environmental Affairs Office

Soil Management SOP Protocol Summary

Site Construction/Project Implementation Requirements:

- Excess soils must be used at the site as much as possible within the bounds of the project and other environmental laws.
- Excess soil that cannot be utilized at the project site (i.e. visually contaminated soil or soil which cannot be used for backfilling or re-grading purposes) must be properly stockpiled for future use or disposal. Soil should be placed on and covered with plastic sheeting. Run-off and run-on controls must be used.
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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: Install gate, call box and flashing lights, B. 18B **DPW PM:** Leon Weinglass

SITE CLEARANCE #: _____

CORPS PM: _____

CONTRACTOR PM: _____

DATE: 29th August 2014

LOCATION OF PROJECT *Building 18B* _____

LOCATION OF EXCAVATION *Open area adjacent to building 18B.* _____

PROJECTED/ACTUAL SIZE OF PILE *30 cubic yards-projected.* _____

All excavated soil for trench will be back filled.

SOIL HAS BEEN STORED AT _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

SOIL HAS BEEN TAKEN TO _____

LOCATION OF PILE _____

DATE _____

DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES _____

NO _____

SOIL IS SOLID WASTE: YES _____

NO _____

**Completed Excess Soil Management Manifest and
Records for 2015**

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EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: Repairs to Security Headquarters 13123

SITE CLEARANCE #:

DATE: 2-Nov-15

DPW PM:
CORPS PM:
CONTRACTOR PM:

LOCATION OF PROJECT 13123 Burlington Road
LOCATION OF EXCAVATION South side of 13123
PROJECTED/ACTUAL SIZE OF PILE 400 cy

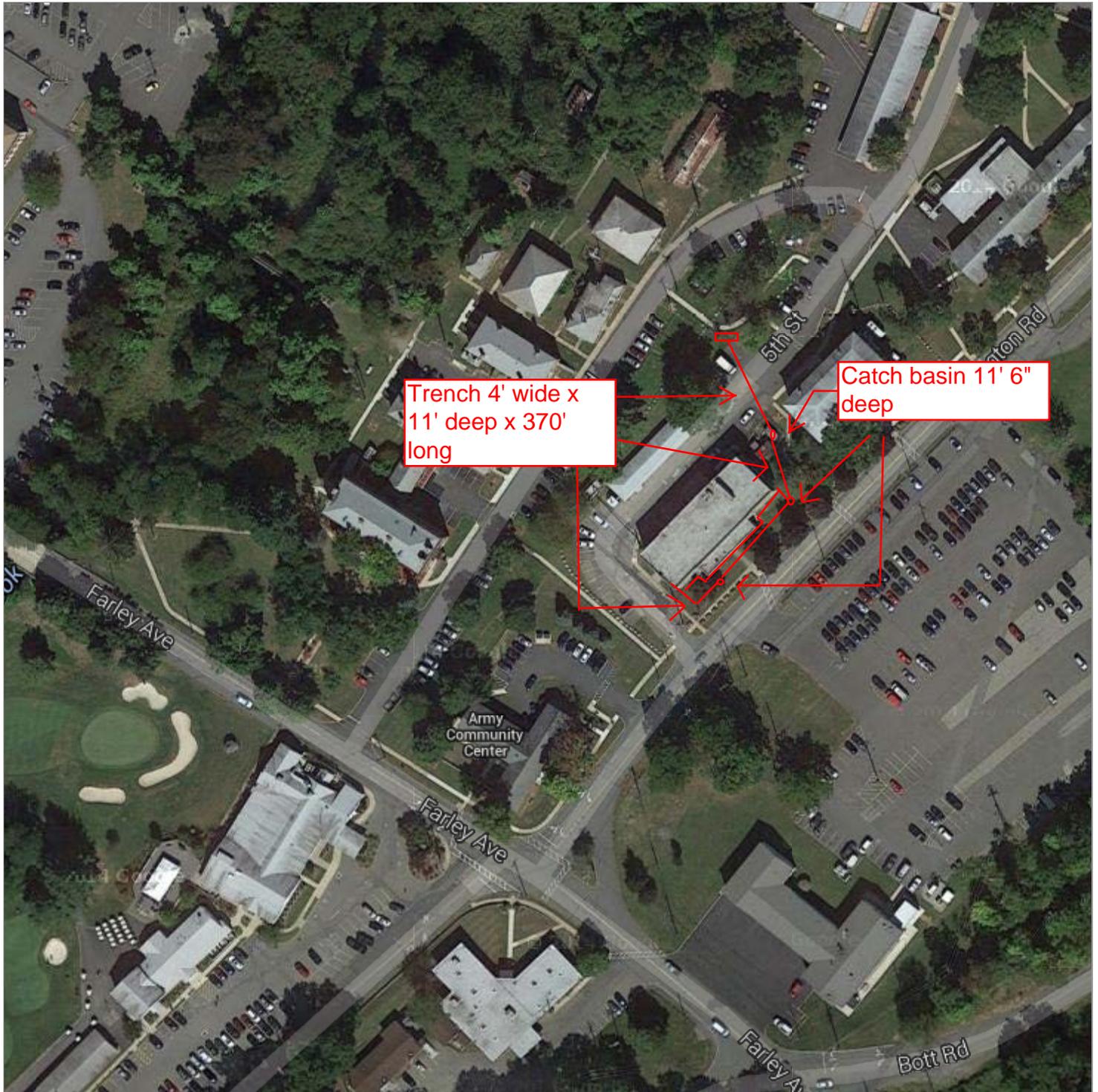
SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO 13117
LOCATION OF PILE Behind gate at 13117
DATE 2-Nov-15
DPW PM _____

MAP MUST BE ATTACHED Map of Excavation area attached

SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

To see all the details that are visible on the screen, use the "Print" link next to the map.





EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: REVISED STORM DRAINAGE

SITE CLEARANCE #:

DATE: 24-SEPT-14

DPW PM:
CORPS PM: N/A
CONTRACTOR PM: CHRIS MORGAN

LOCATION OF PROJECT B341D
LOCATION OF EXCAVATION 341D - ROADS ADJACENT
PROJECTED/ACTUAL SIZE OF PILE ± 80 CUBIC YARDS

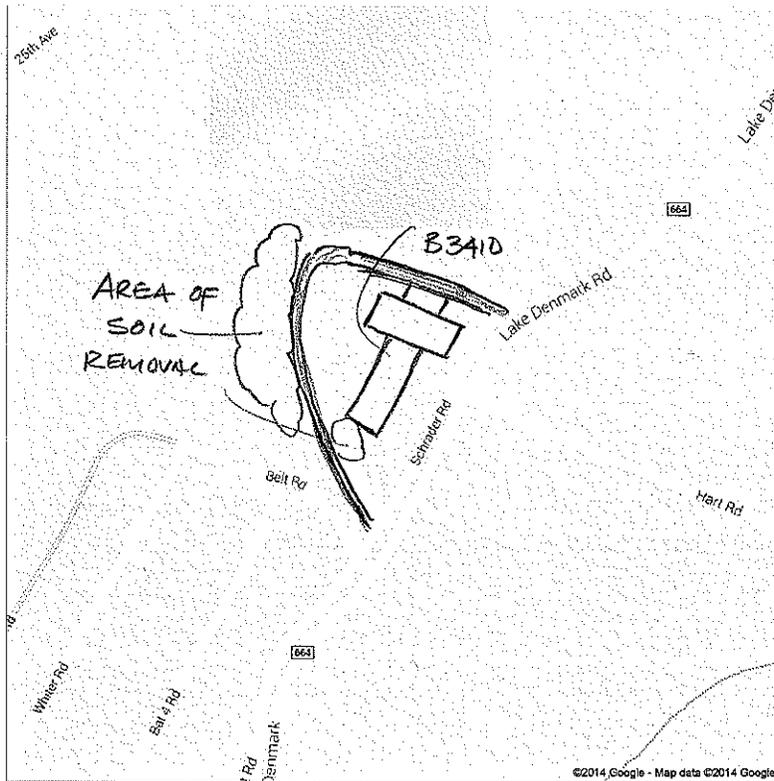
SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO SNAKE HILL ROAD STOCKPILE
LOCATION OF PILE "
DATE 1-OCT-14 AND 3-OCT-14
DPW PM _____

MAP MUST BE ATTACHED _____

SOIL IS CLEAN: YES ✓ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

Google



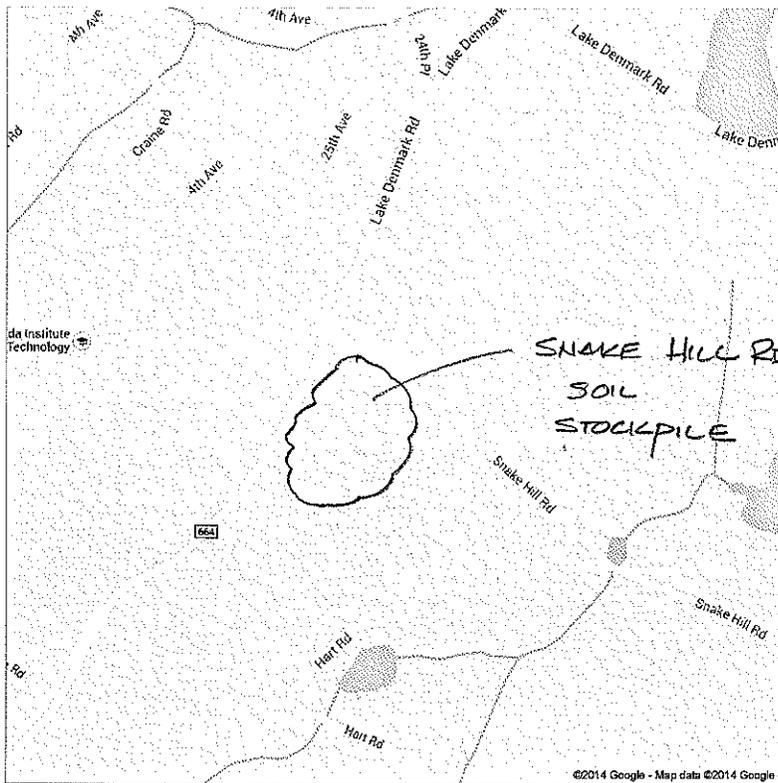
SOIL REMOVAL
LOCATION.

Showing results for Picatinny Arsenal
Search instead for Picatinny Arsenal

- A. **Picatinny Arsenal**
Route 15 North, Rockaway Township, NJ
(973) 724-4021
4.3 ★★★★★ 11 reviews

Google

Soil stockpile location at Snake Hill Road



SOIL DEPOSIT
LOCATION

Showing results for Picatinny Arsenal
Search instead for Picatinny Aresnal

- A. **Picatinny Arsenal**
Route 15 North, Rockaway Township, NJ
(973) 724-4021
4.3 ★★★★★ 11 reviews

POTENTIALLY CONTAMINATED
SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: WERS demolition, site restoration DPW PM: Chris Barkocy
for proper drainage CORPS PM:
CONTRACTOR PM:

DATE: 30 Sep 2014

LOCATION OF PROJECT: footprint of former B1377

LOCATION OF PILE: footprint of former 3618

PROJECTED/ACTUAL VOLUME OF PILE (TONS/YDS): 144cy (8 Truckloads @ 18cy each)

DATE PILE EXCAVATED: 22-24 Sep 2014

DPW PM: Chris Barkocy DATE: 30 Sep 2014

SOIL HAS BEEN STORED AT: NA DATE: _____
DPW PM: _____

MAP MUST BE ATTACHED _____

EAD POC: _____

ENVIRONMENTAL OFFICE – NOT FOR USE BY DPW OR CONTRACTOR

DATE SOIL MANIFEST SUBMITTED _____

DATE PLAN APPROVED _____

DATE SOIL SAMPLED _____

DATE RESULTS MADE _____

ANALYSIS # _____

APPROVED EROSION CONTROL PLAN YES__ NO _____

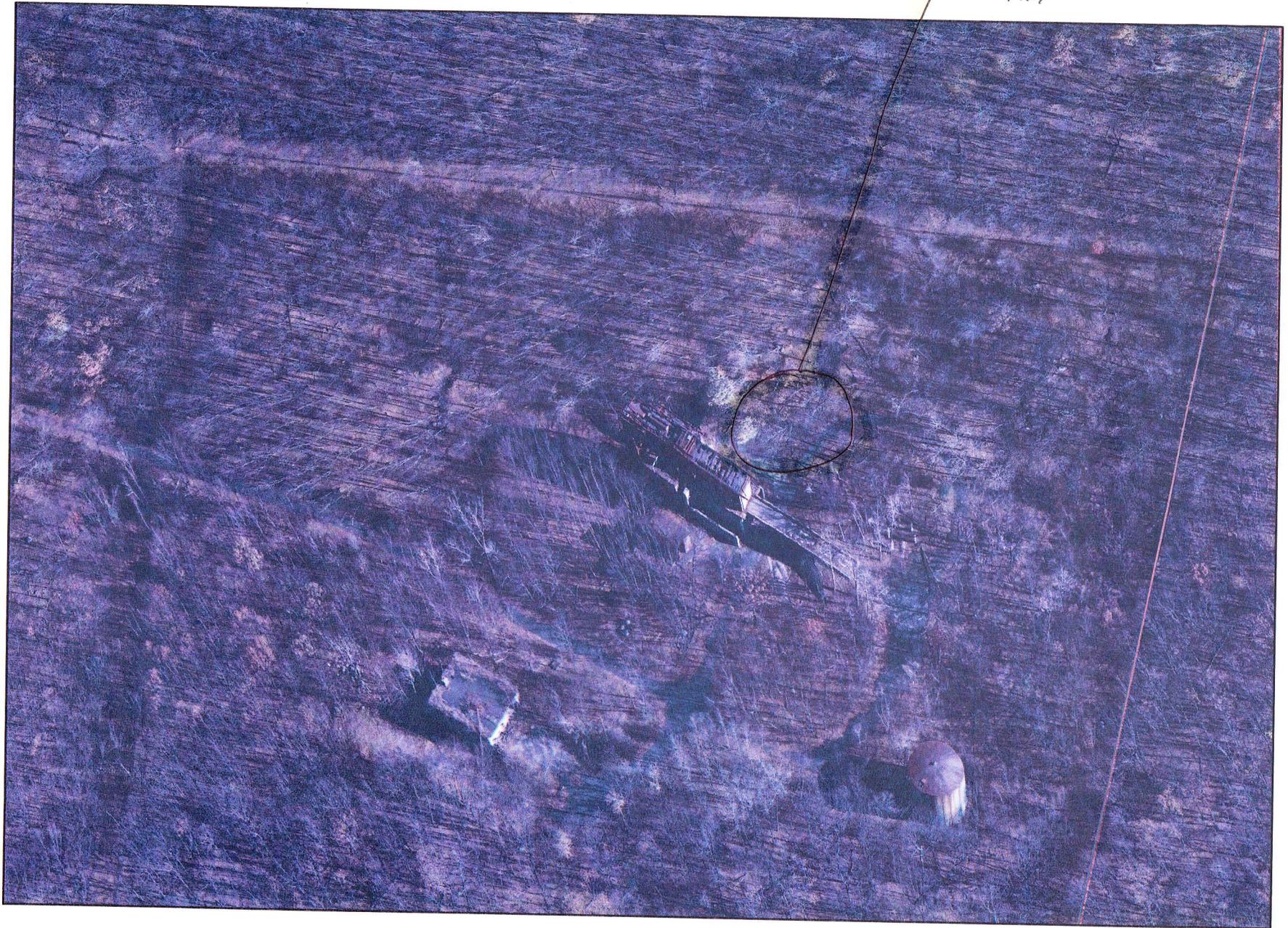
SOIL IS CLEAN _____

SOIL IS SOLID WASTE _____

SOIL IS HAZARDOUS _____

DATE AND # DIRECTIVE SENT TO DPW _____

Soils were
excavated from
this area





Soils were
deposited
to this
area

EXCESS SOIL MANAGEMENT Manifest and Record

PROJECT NAME: Bldg. 3321 drainage repair

SITE CLEARANCE #:

DATE: 12/10/15

DEH PM:
CORPS PM:
CONTRACTOR PM:

LOCATION OF PROJECT

Bldg. 3321

LOCATION OF EXCAVATION

South west corner of Bldg. 3321

PROJECTED/ACTUAL SIZE OF PILE

60-70 yd

SOIL HAS BEEN STORED AT

Bldg. 3321

LOCATION OF PILE

Bldg. 3321 front yard

DATE

Nov 2015

DEH PM

SOIL HAS BEEN TAKEN TO

Back 200 & Buck 500 Area

LOCATION OF PILE

Backline 200 & 500 Area

DATE

12/2/15

DEH PM

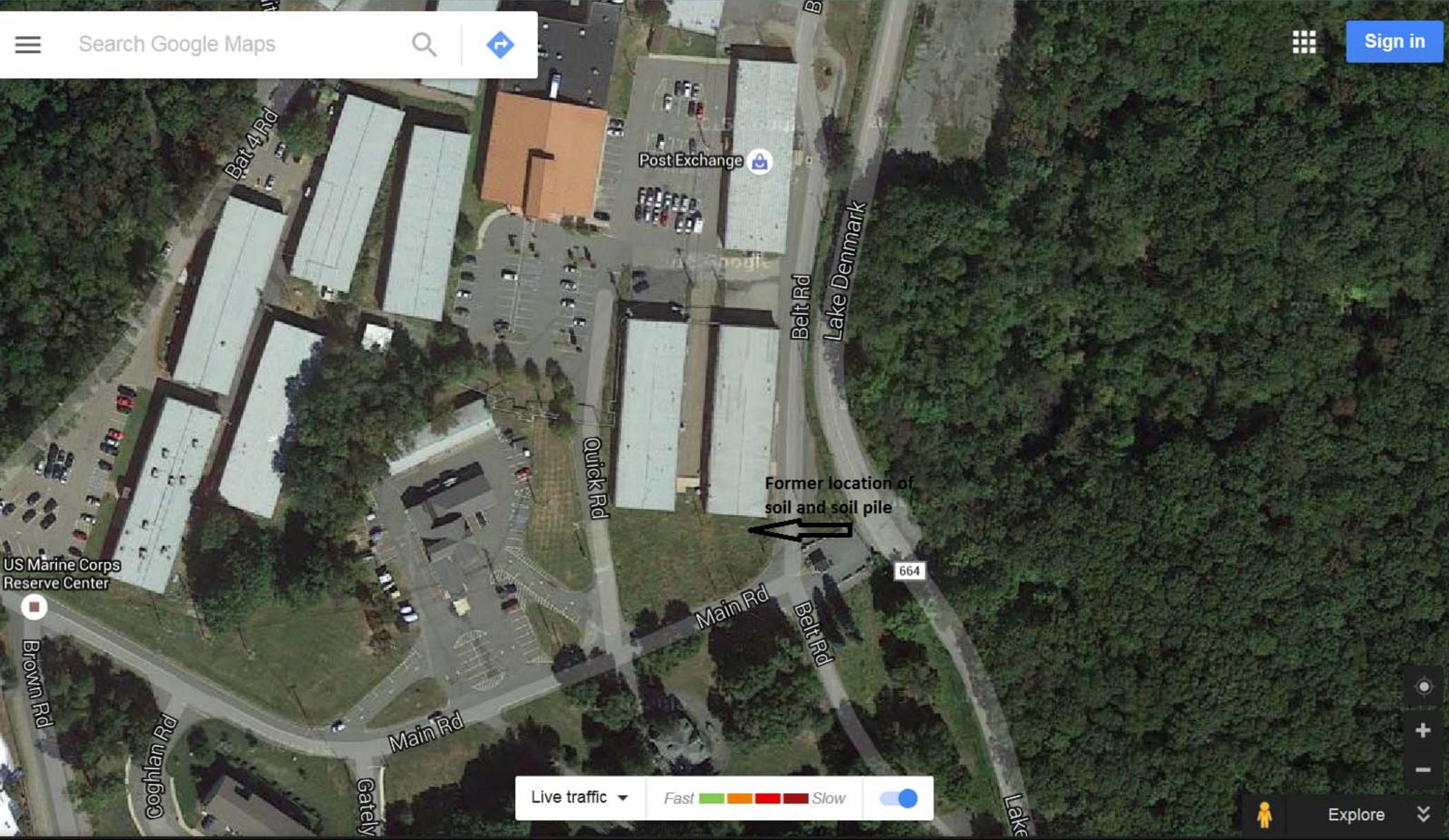
MAP MUST BE ATTACHED

SOIL IS CLEAN: YES

NO

SOIL IS SOLID WASTE: YES

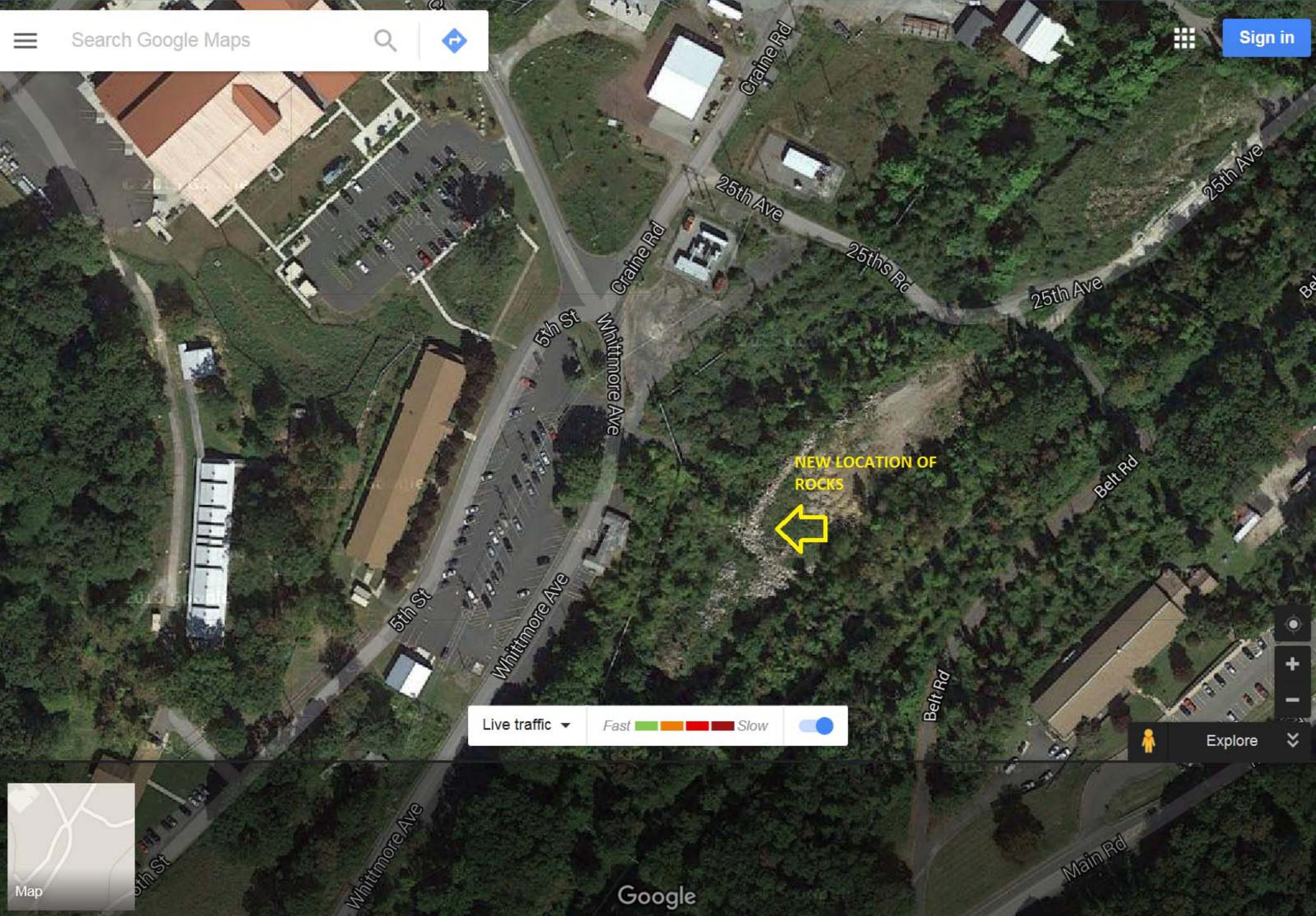
NO



Live traffic Fast Slow

Explore





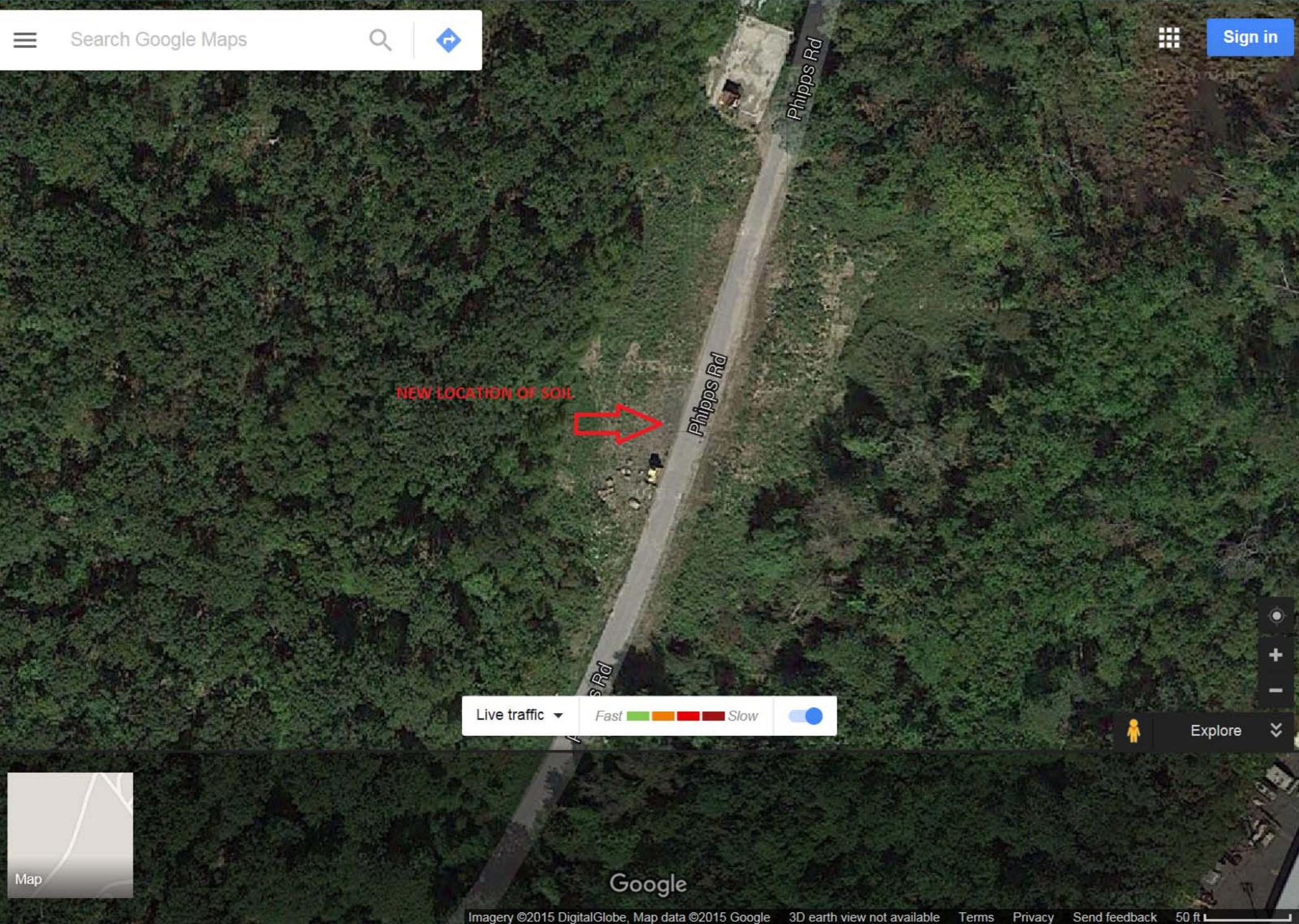
NEW LOCATION OF ROCKS



Live traffic Fast Slow

Explore





NEW LOCATION OF SOIL

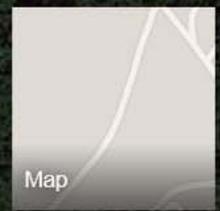


Phipps Rd

Phipps Rd

Live traffic Fast Slow

Explore



Google

American water

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: American water

DPW PM: Mike Maier

SITE CLEARANCE #:

CORPS PM:

DATE: 6-16-15

CONTRACTOR PM: Mike Pointing

LOCATION OF PROJECT Parker Road and 332
LOCATION OF EXCAVATION same
PROJECTED/ACTUAL SIZE OF PILE 60 yds

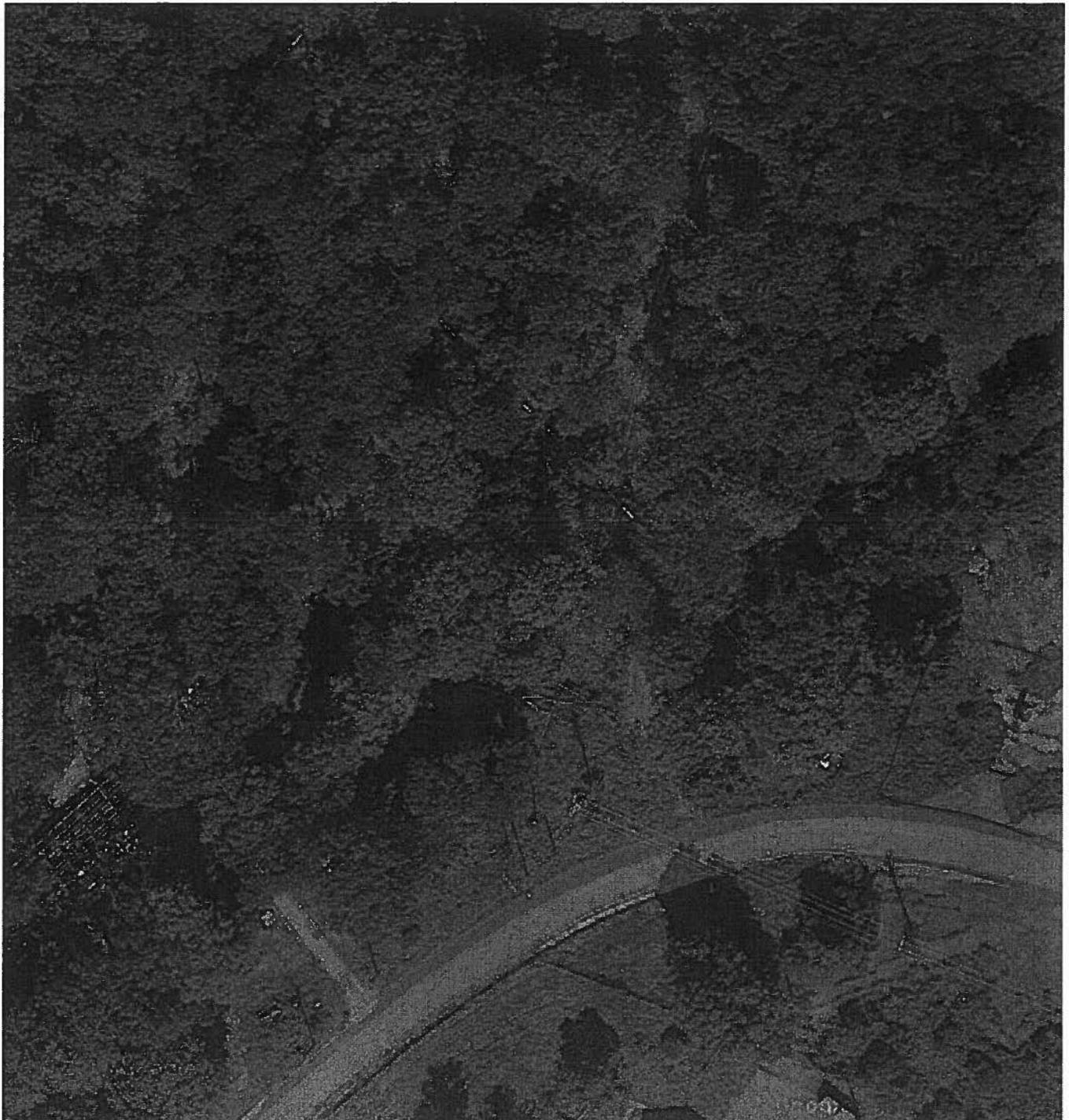
SOIL HAS BEEN STORED AT 506
LOCATION OF PILE parking lot
DATE 6-16-15
DPW PM _____

SOIL HAS BEEN TAKEN TO 717 site
LOCATION OF PILE center
DATE 6-16-15 & 6-19-15
DPW PM _____

MAP MUST BE ATTACHED

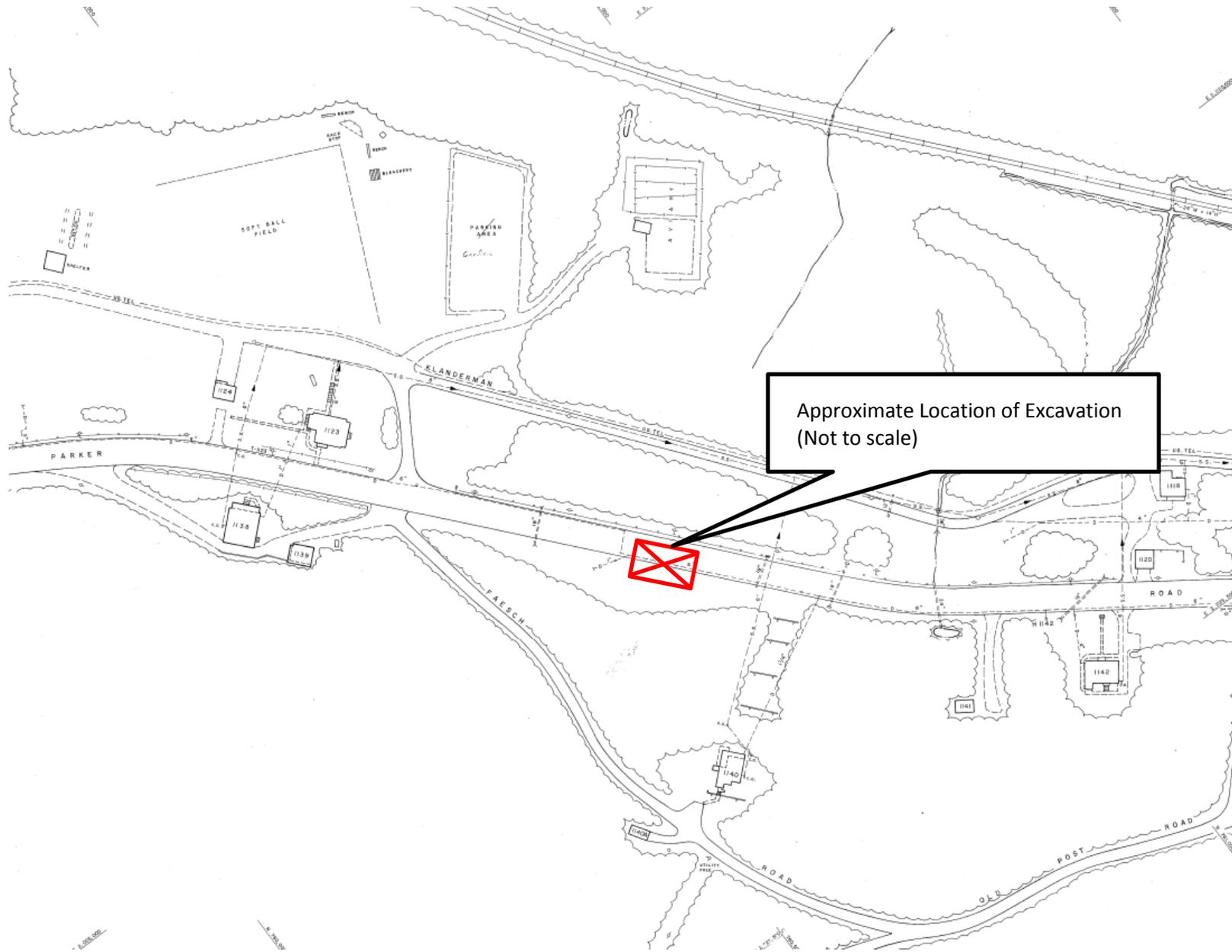
SOIL IS CLEAN: YES _____ NO _____
SOIL IS SOLID WASTE: YES _____ NO _____

717 site

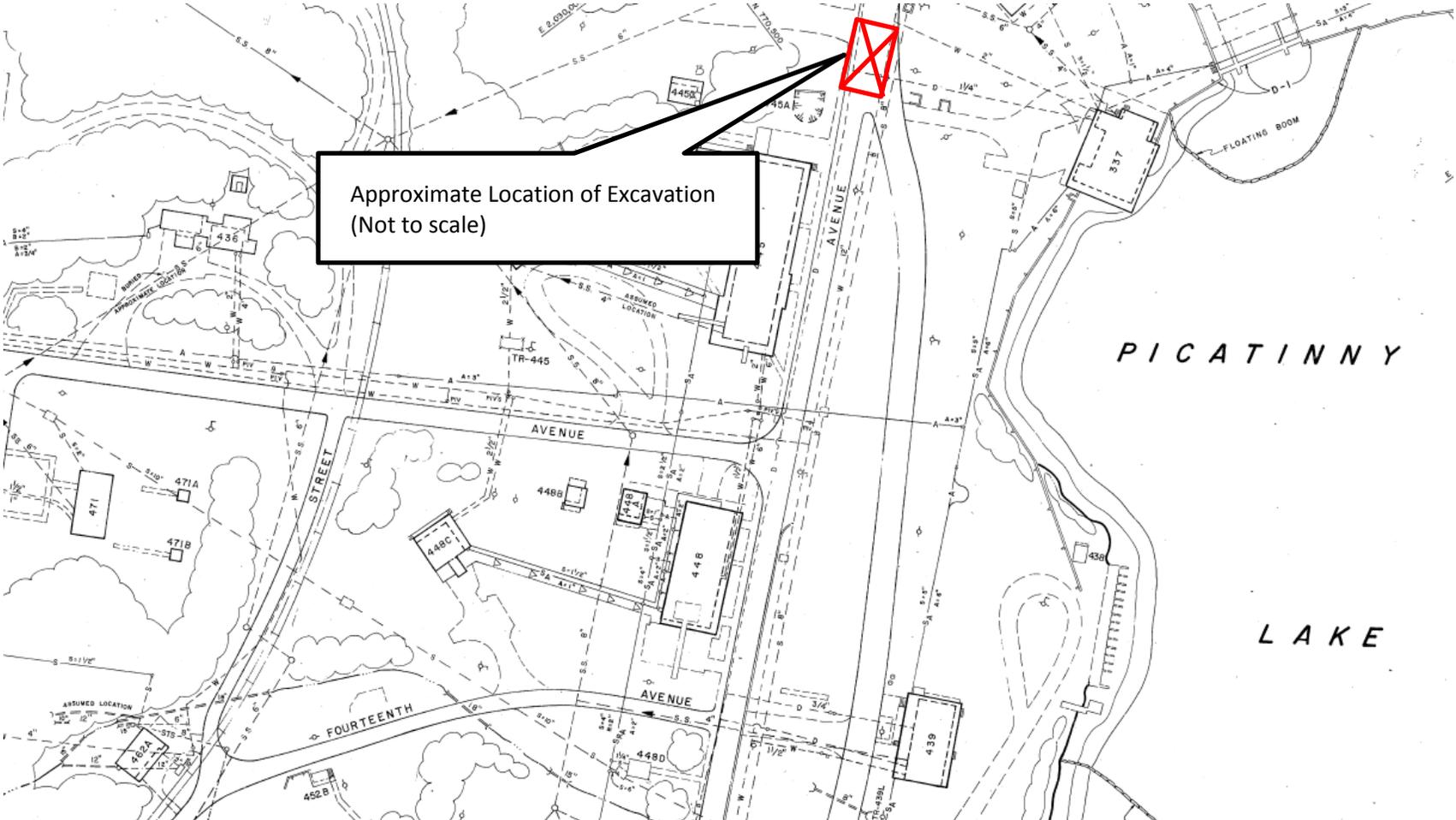


Excavation Location Map

Parker Rd. Potable Water Main Repair



Excavation Location Map
Building #332 Service Water Main Repair



Approximate Location of Excavation
(Not to scale)

PICATINNY

LAKE

EXCESS SOIL MANAGEMENT
Manifest and Record

PROJECT NAME: INSTALL CONCRETE PADS B-18
SITE CLEARANCE #: PEMS WAIVER
DATE: 9/29/14
DPW PM: RICH WALTER
CORPS PM: _____
CONTRACTOR PM: JIM CONWAY

LOCATION OF PROJECT ALONG SECOND AVE.
LOCATION OF EXCAVATION SEE MAPS
PROJECTED/ACTUAL SIZE OF PILE 80 CYD.

SOIL HAS BEEN STORED AT _____
LOCATION OF PILE _____
DATE _____
DPW PM _____

SOIL HAS BEEN TAKEN TO B-717 Stack Piles
LOCATION OF PILE B-717
DATE 9/29/14
DPW PM RICH WALTER

MAP MUST BE ATTACHED ✓

SOIL IS CLEAN: YES ✓ NO _____
SOIL IS SOLID WASTE: YES _____ NO ✓

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google



28 CYD

SOIL CAME FROM
THESE AREAS TOTAL
OF 80 CYD.



717

80 yds
TAKEN HERE

Appendix B

2015 Building Demolition Summary

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Appendix B
 2015 Building Demolition Summary
 Picatinny Arsenal, NJ

Building #	Square Feet	RI Concept Site with a Record of Decision
99	2875	No
281	5839	No
332	5560	No
614	210	No
615	100	No
646	51	No
652	102	No
671	72	No
1093	900	No
1182	119	Area C (PICA-206)
1186	300	Area C (PICA-206)
1221	50	No
1362	950	No
1363	853	No
1364	290	No
3007	400	No
3030	300	No
3032	300	No
3040	48	No
3154	48	No
3164	300	No
3303	300	No
1462A	112	No
282A	480	No
282B	36	No
282D	36	No
3092D	15	No
454B	1024	No
477F	36	No
611C	160	No
641B	25	No
717C	202	No
639	1600	No
655	400	No
429A	30	No
640B	110	No
641C	110	No
641E	110	No
641F	110	No

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Appendix C

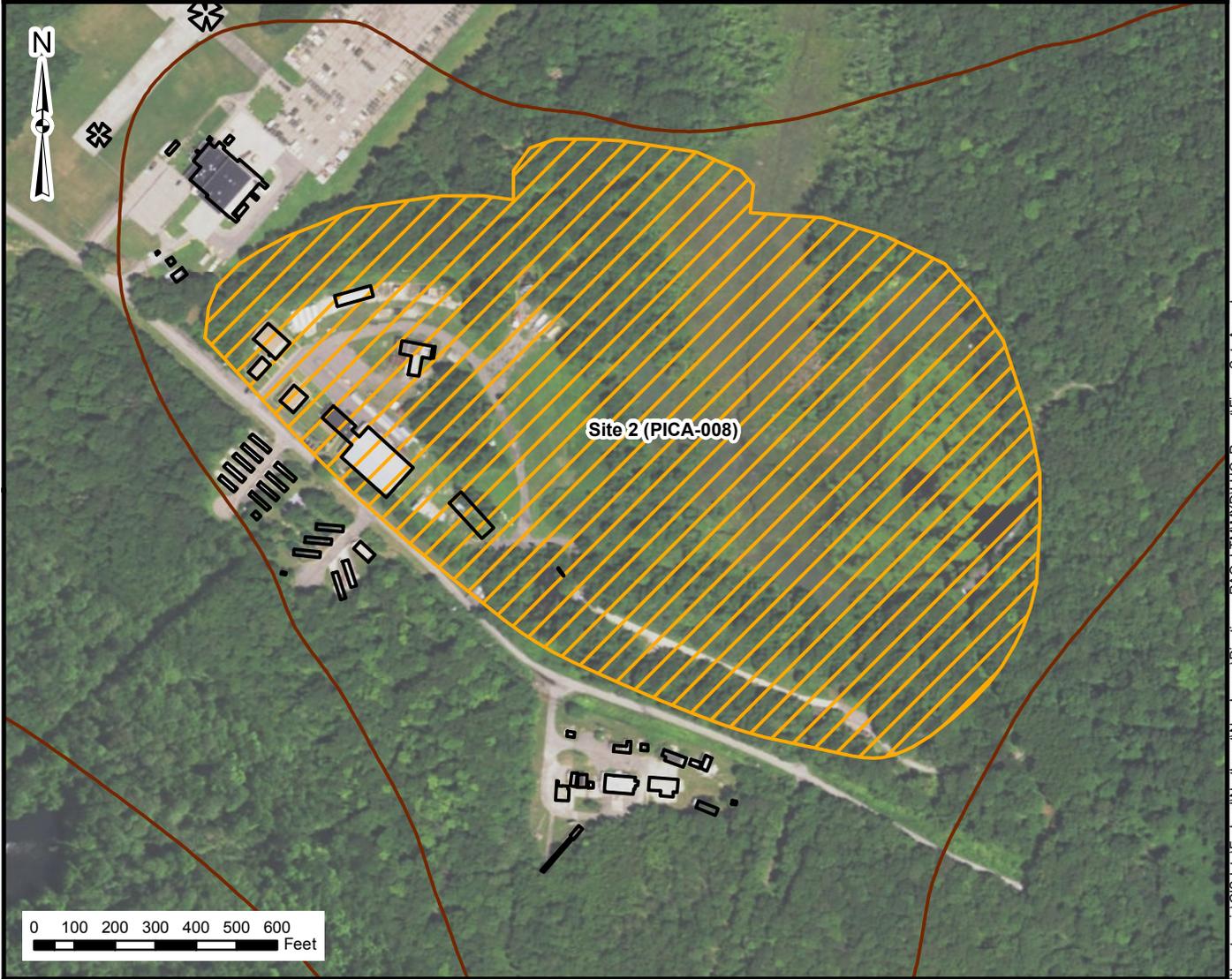
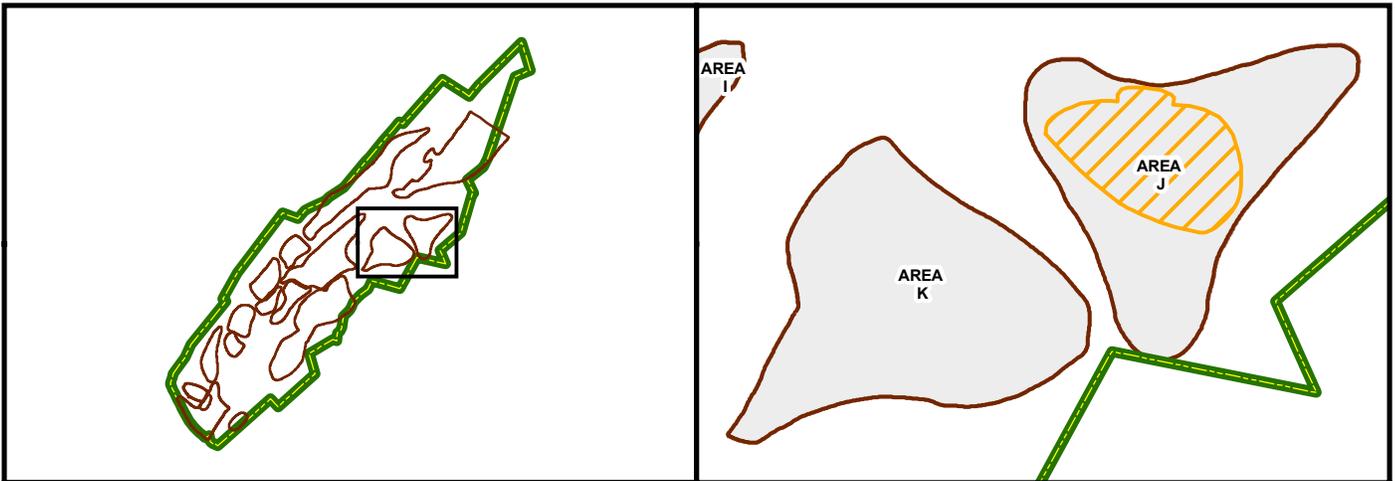
Group 3 Sites (PICA-008) Groundwater, Site Figure

Group 3 Sites (PICA-008) Groundwater, Site Photographs

Group 3 Sites (PICA-008) Groundwater, Inspection Forms

**Group 3 Sites (PICA-008) Groundwater, Land Use Control
Objectives and Annual Certification**

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Legend

- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure C-1
Site 2 (PICA-008)

Annual Inspection Checklist for Land Use Evaluation

Site: Group 3, PICA-008

1. Land Use Evaluation

Date 10/19/2015

1. Inspector walkd over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Construction Activities	N		
Other	N		

3. Has any disturbance of soil taken place ove the past year? X Yes No

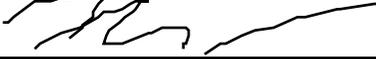
If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>
Project # 5066	12/11/2015		Install perimeter fencing for G2 range that meet Force Protection and Physical Security requirements
Project # 3190/4503	11/14/2014		Complete the install G-2 Small Arms Range- Parking
Project # 4560	10/29/2014		Perform routine property maintenance - Grade Area 3500
Project # 4560	6/22/2015		Address an issue with the hill eroding and depositing soil at and under catch system at the G2 range

4. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/19/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o□ Group 3, PICA-008

Site Photographs



Photo 1: Notes
active testing and training area.



Photo 2: Notes
condition of monitoring wells, grass cover and asphalt surface.

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: Group 3, PICA-008

Site Photographs



Photo 3: Notes
condition of grass cover and asphalt surface



Photo 4: Notes
active training facility.

**Annual Certification of Land Use
Controls for Group 3 Sites (PICA-008) Groundwater
Picatinny, New Jersey**

This certification is being made in accordance with the Remedial Design (RD) for Group 3 Sites Groundwater (PICA-008). The RD is in accordance with the Group 3 Sites Record of Decision (ROD) signed by the Picatinny commander and EPA Region 2 Director of the Emergency and Remedial Response Division on July 8, 2010 and August 2, 2010, respectively.

1. **Certification of LUC objectives outlined in Land Use Control Plan for Group 3 Sites (Remedial Design):**

A. **LUC Objective: Continued implementation of the Classification Exception Area (CEA) at PTA specifically addressing the Site 2 groundwater plumes;**

- i. *Update Groundwater Classification Exception Area:* Upon approval of the RD, the CEA will be reviewed and updated as necessary with current site-specific conditions during the next biennial certification.
- ii. *Certification and Protectiveness Evaluation:* Certification of the CEA will be completed with the next biennial certification. The certification includes inspection and evaluation of (1) changes to laws and regulations, (2) future water uses, (3) changes to current water use (well search), (4) the integrity of monitoring wells associated with the CEA, (5) any land use disturbances within the CEA, and (6) analytical sampling results. Any proposed groundwater use within the CEA will require NJDEP review and approval to ensure that modifications would be protective of any impacts from the identified contaminants for the duration of the CEA
- iii. *Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Area J.
- iv. *Picatinny Safety Program:* The Safety Program establishes the Hazard Communication Program and Hazardous Materials Information System, maintains a central Material Safety Data Sheets file in the Installation Safety Office, and provides a safety review of all construction projects. The Safety Program also establishes the appropriate medical surveillance program for personnel working with hazardous materials or otherwise performing hazardous operations. The Installation Safety Office is the point of contact for the Safety Program, and has the authority to stop work where unsafe work conditions are present.

B. **LUC Objective: Incorporate Group 3 Sites (PICA-008) data into the Installation Restoration Program (IRP) GIS system**

- i. *Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Group 3 Sites (PICA-008). The Vision Planner is currently fully cognizant of the restrictions of the Land Use Control Implementation Plan (LUCIP) and would incorporate those in any planned actions at the site.
- ii. *Picatinny GIS Database:* The Picatinny Environmental Geographic Information System (GIS) incorporates the area of applicability of land use controls, sampling results, and other information.

C. LUC Objective: Compliance with all NJDEP water allocation regulations.

- i. *Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Group 3 Sites (PICA-008). The Vision Planner is currently fully cognizant of the restrictions of the LUCIP and the water allocation regulations. The Master Planner would incorporate these restrictions and regulations in any planned actions at the site.
- ii. *Update Groundwater Classification Exception Area:* The CEA was reviewed in 2014 and updated as necessary with current site-specific conditions. The next biennial certification will be conducted in 2016.

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Appendix D

Site 19 (PICA-020), Site Figure*

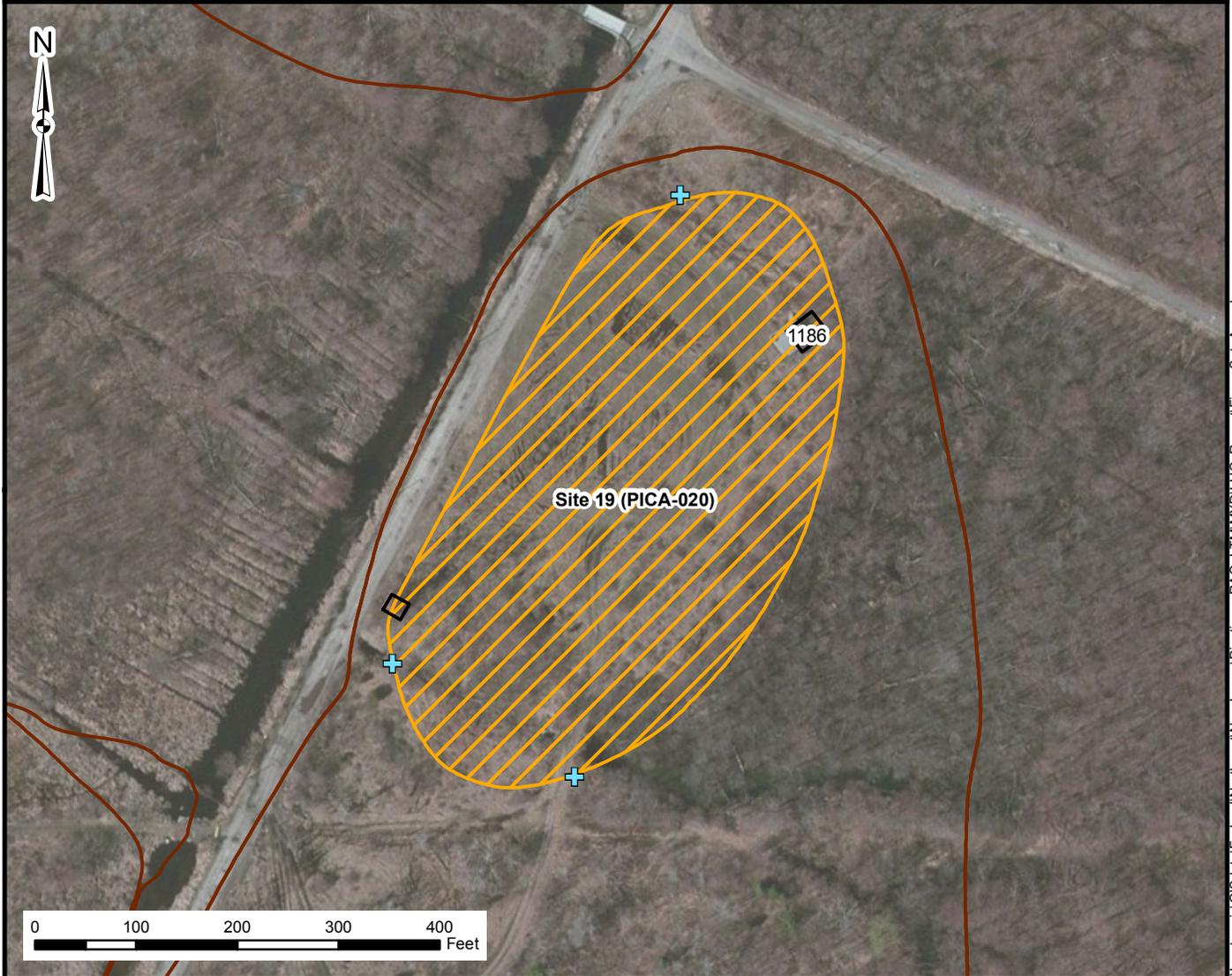
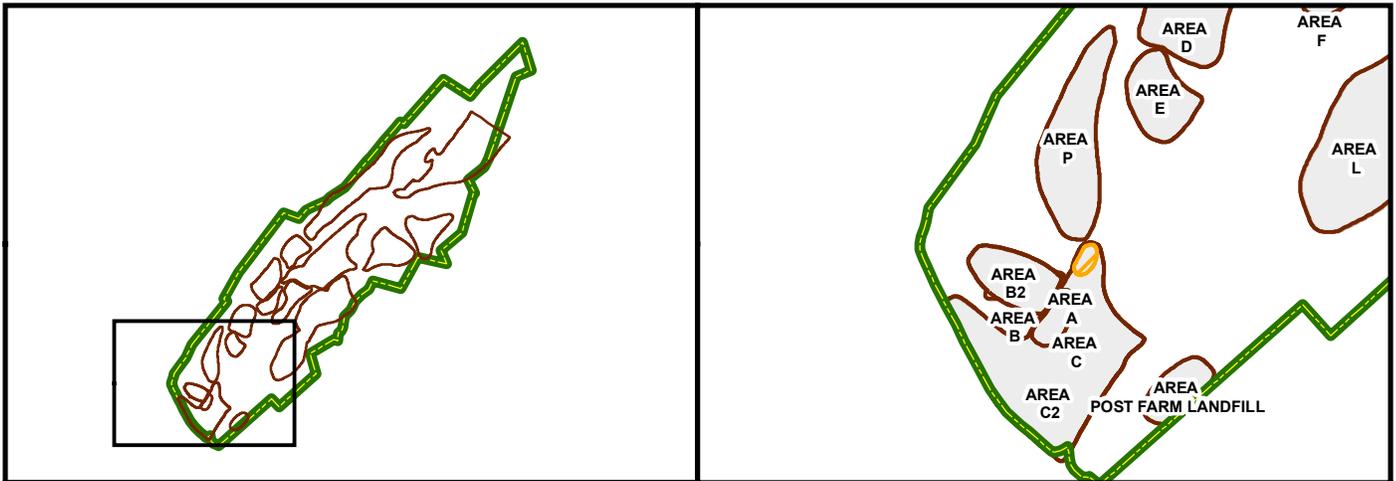
Site 19 (PICA-020), Site Photographs*

Site 19 (PICA-020), Inspection Forms*

**Site 19 (PICA-020), Land Use Control Objectives and
Annual Certification***

***Includes Site 163 (PICA-092), Site 86 (PICA-095), Site 182
(PICA-099), Site 183 (PICA-100), Site 28 (PICA-070), Site
106 (PICA-036), Site 124 (PICA-105), Site 141 (PICA-110),
Site 143 (PICA-112), and Site 135 (PICA-118)**

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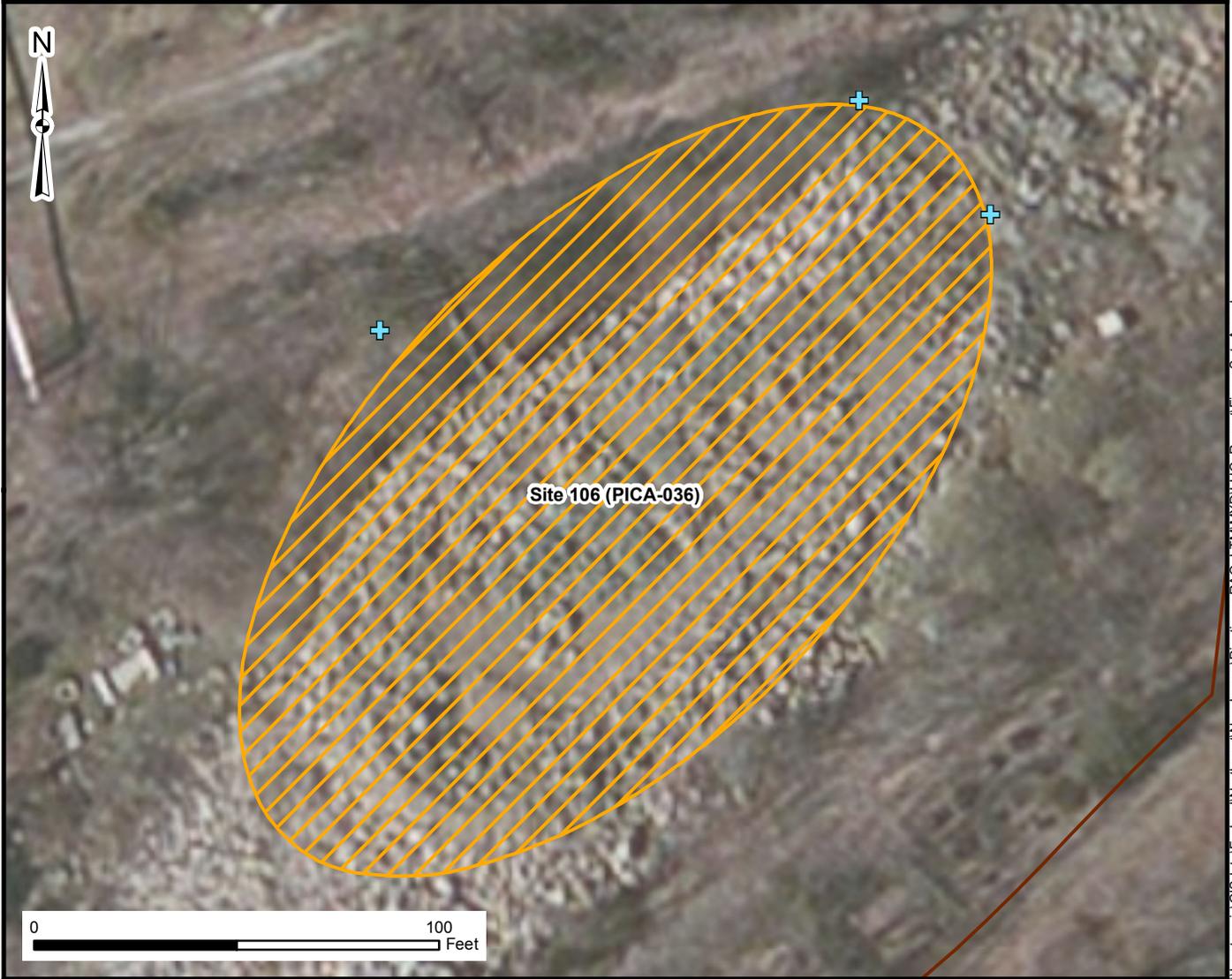
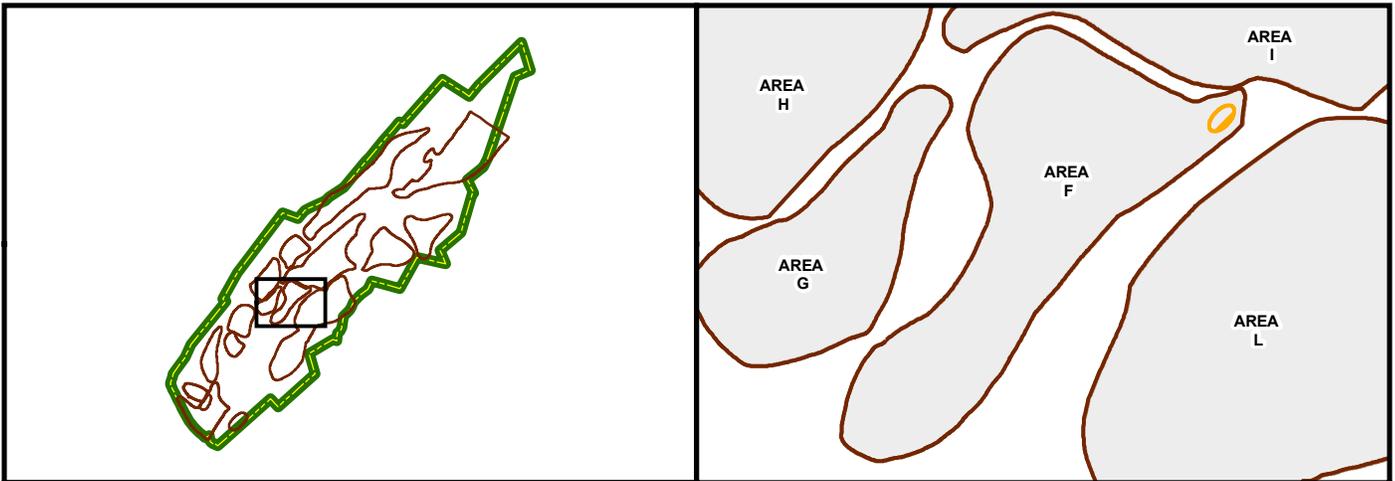
Legend

- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- LUC Sign Location
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-1
Site 19 (PICA-020)



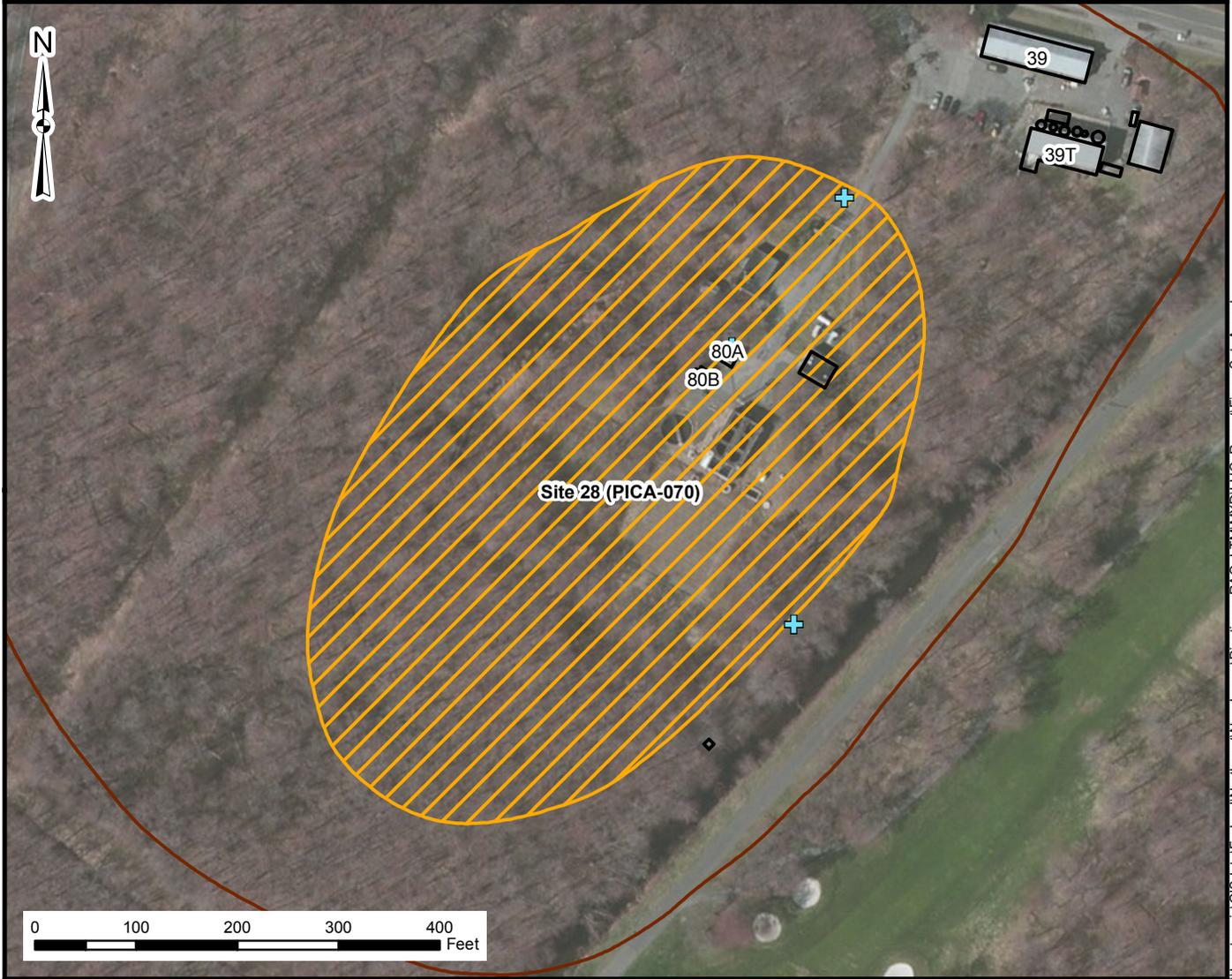
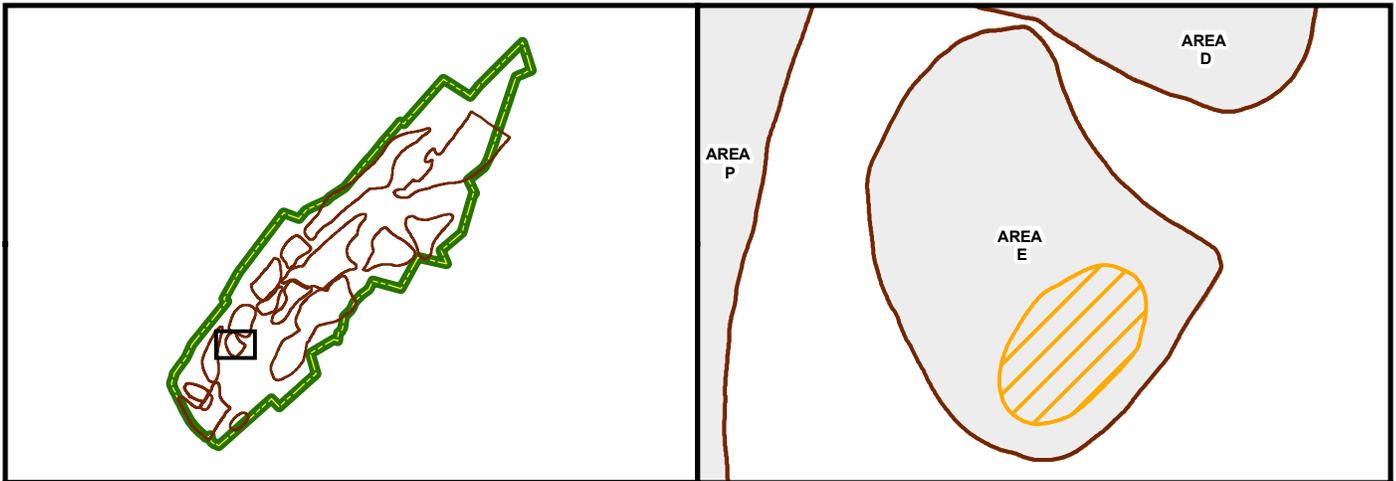
Legend

-  Installation Boundary
-  LUC Area of Applicability
-  Area Boundary
-  LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-2
Site 106 (PICA-036)



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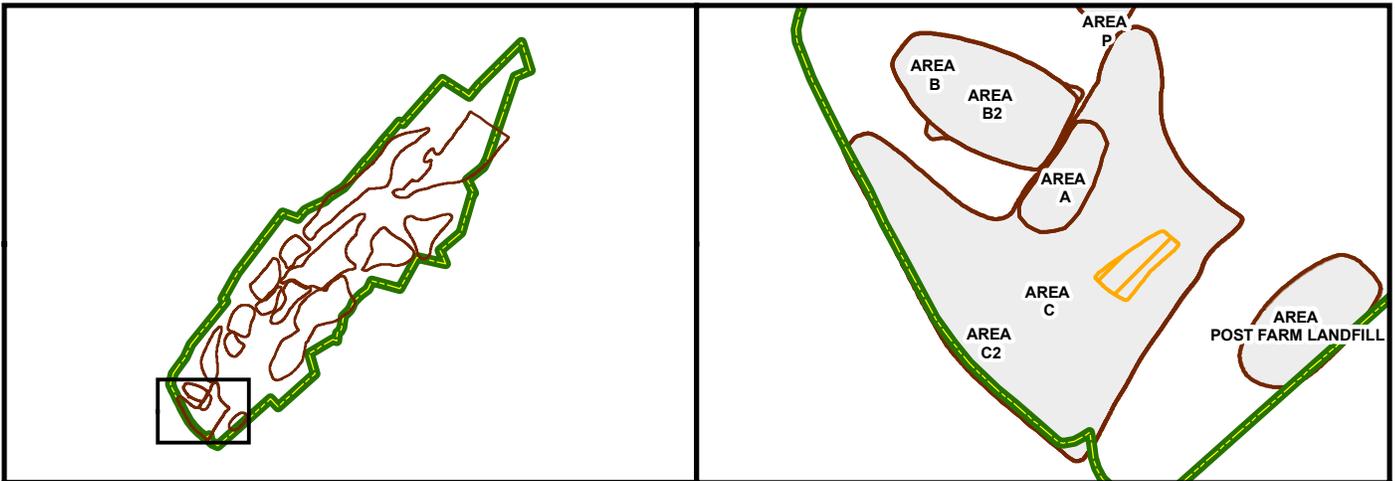
Legend

-  Installation Boundary
-  Area Boundary
-  Building
-  LUC Area of Applicability
-  LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-3
Site 28 (PICA-070)



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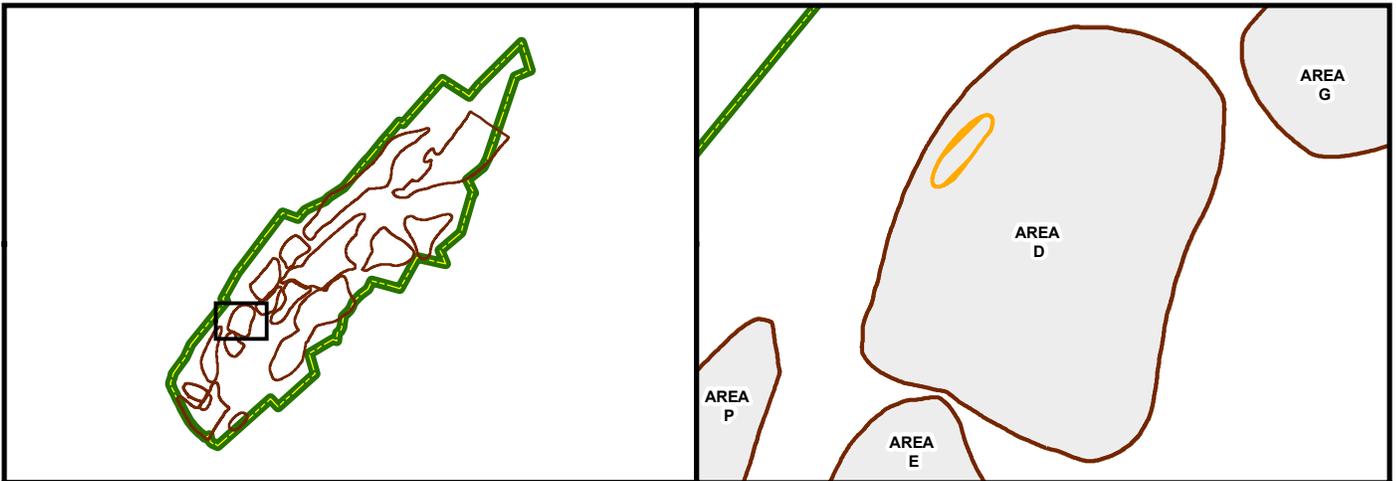
Legend

- Installation Boundary
- Area Boundary
- Building
- LUC Area of Applicability
- + LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-4
Site 163 (PICA-092)



Legend

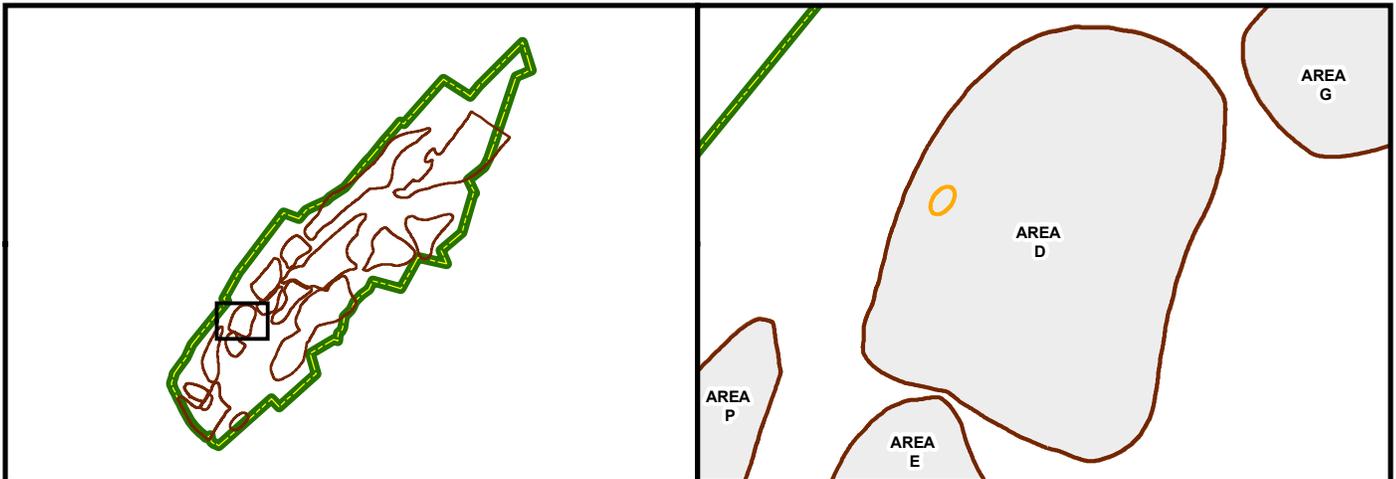
-  Installation Boundary
-  Area Boundary
-  Building
-  LUC Area of Applicability
-  LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-5
Site 86 (PICA-095)

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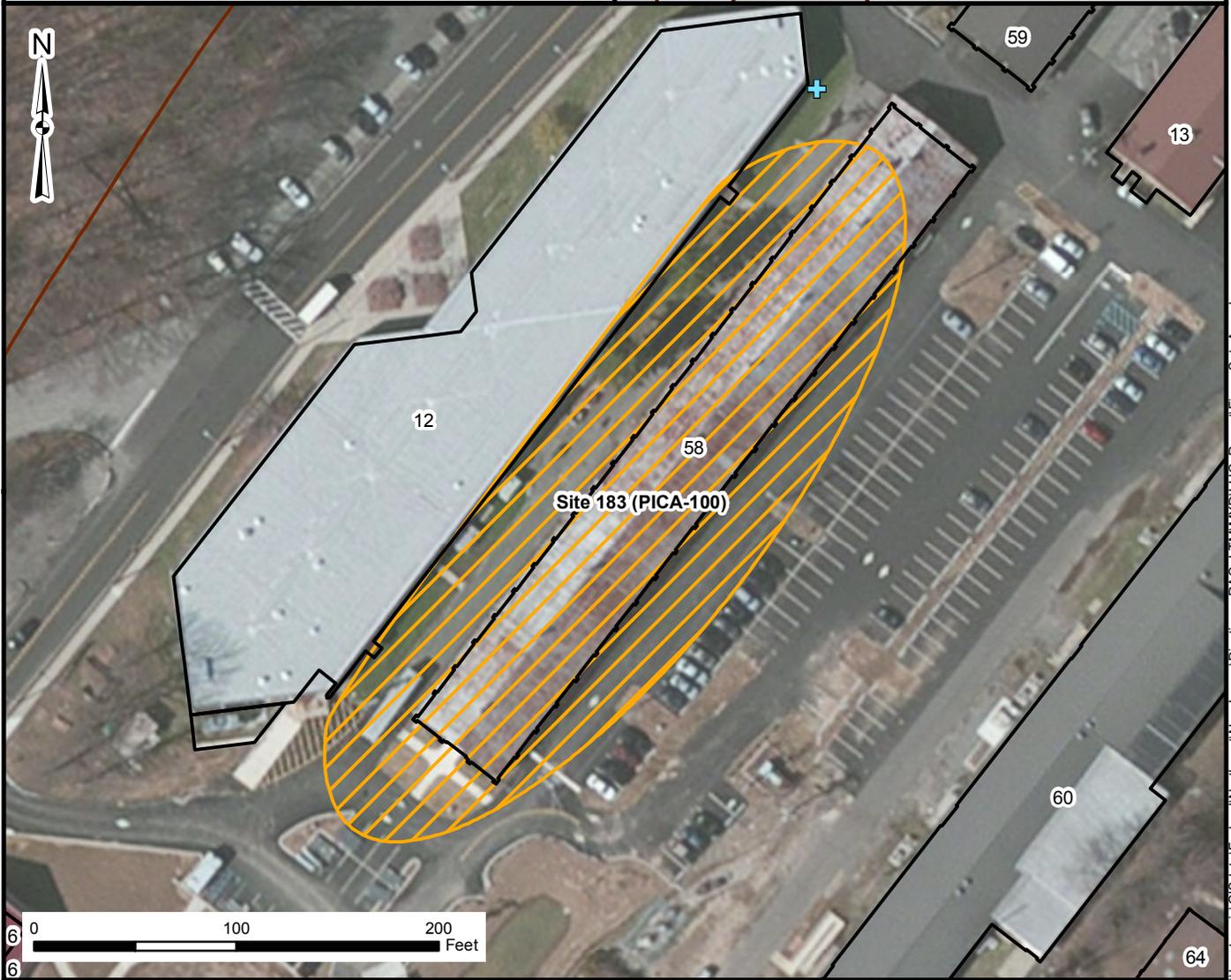
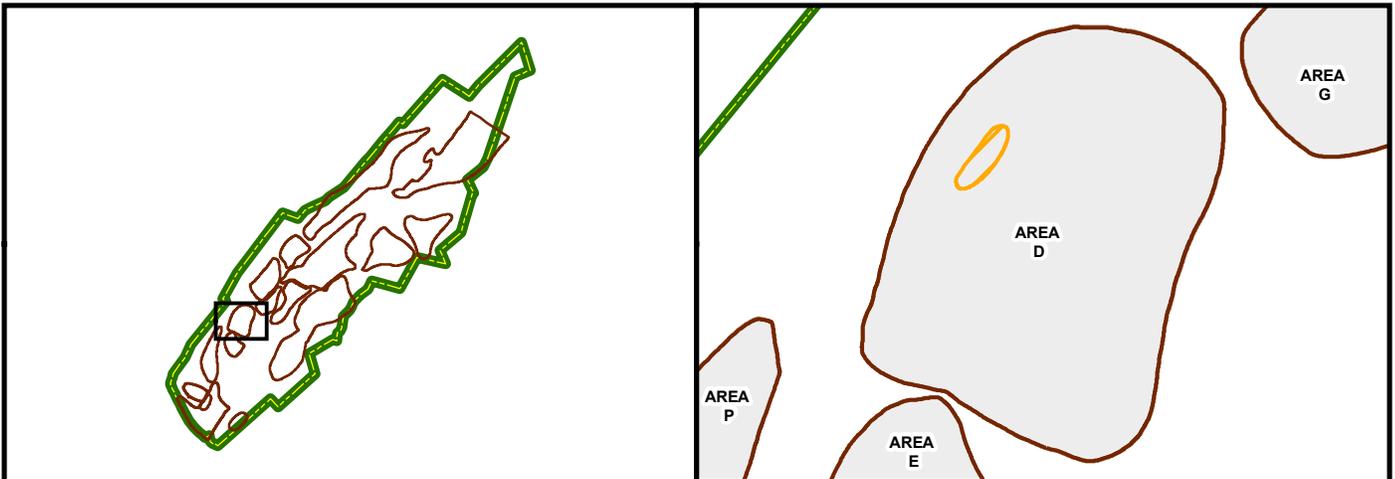
Legend

- Installation Boundary
- Area Boundary
- Building
- LUC Area of Applicability
- LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-6
Site 182 (PICA-099)



Legend

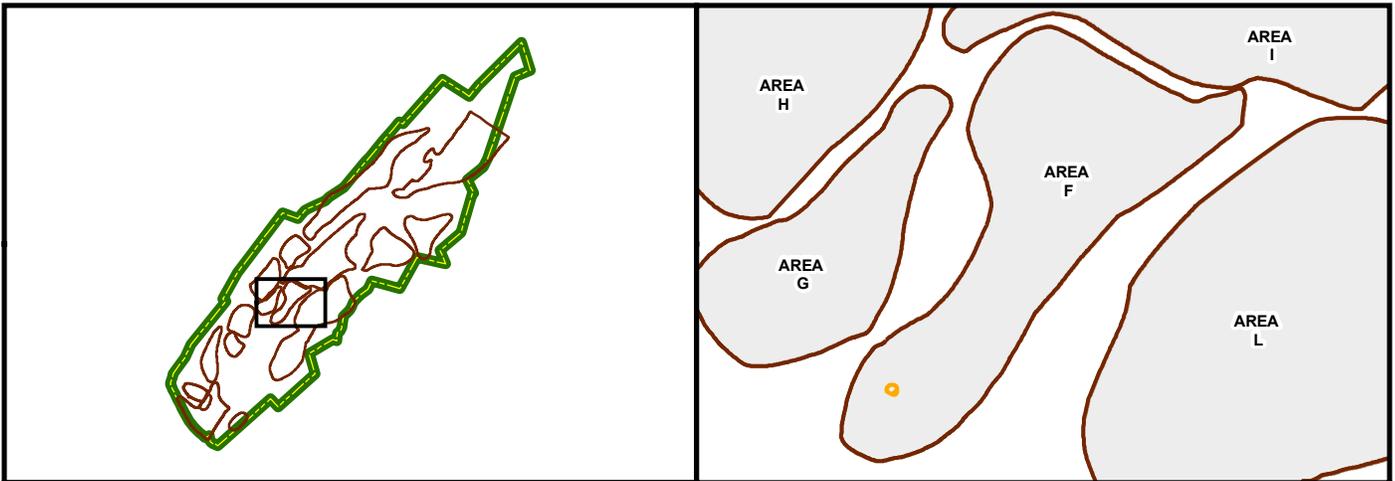
- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- LUC Sign Location
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-7
Site 183 (PICA-100)

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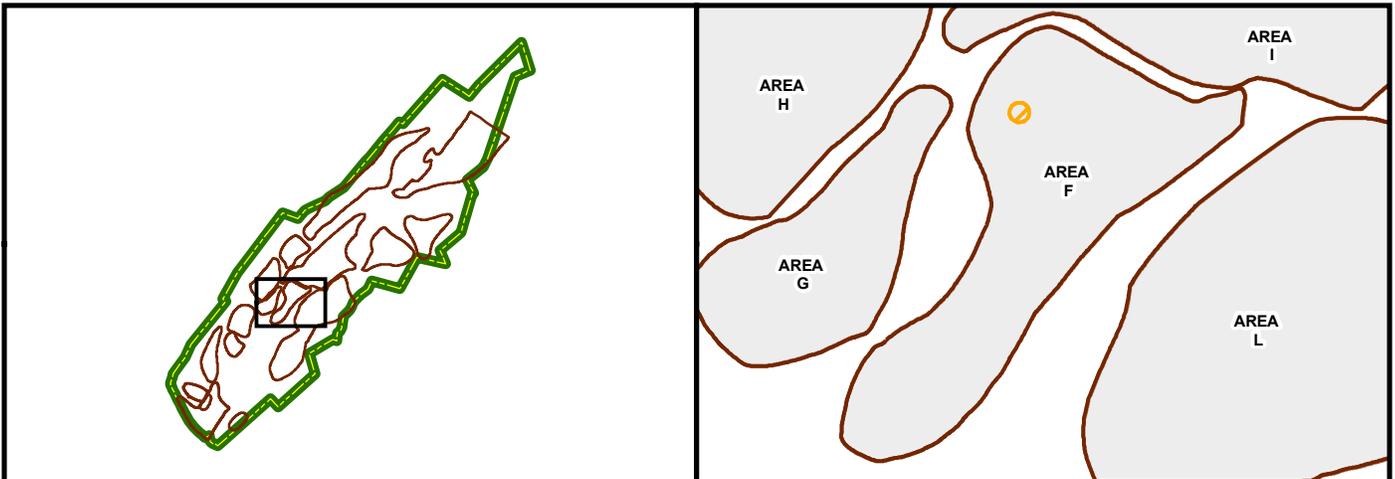
Legend

-  Installation Boundary
-  Area Boundary
-  Building
-  LUC Area of Applicability
-  LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-8
Site 124 (PICA-105)



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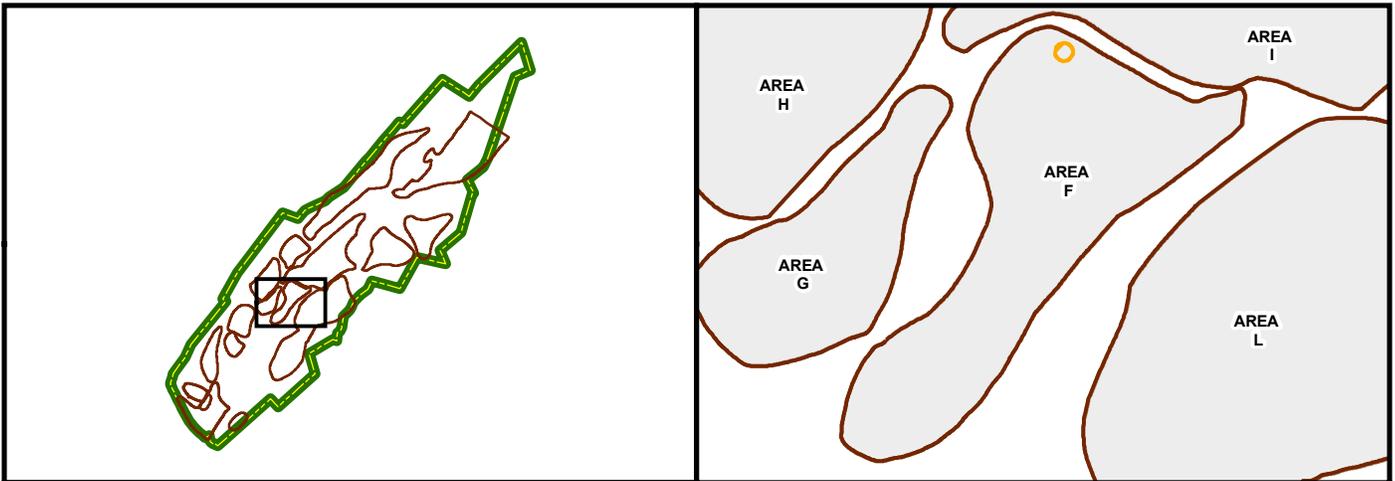
Legend

-  Installation Boundary
-  LUC Area of Applicability
-  Area Boundary
-  LUC Sign Location
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-9
Site 141 (PICA-110)



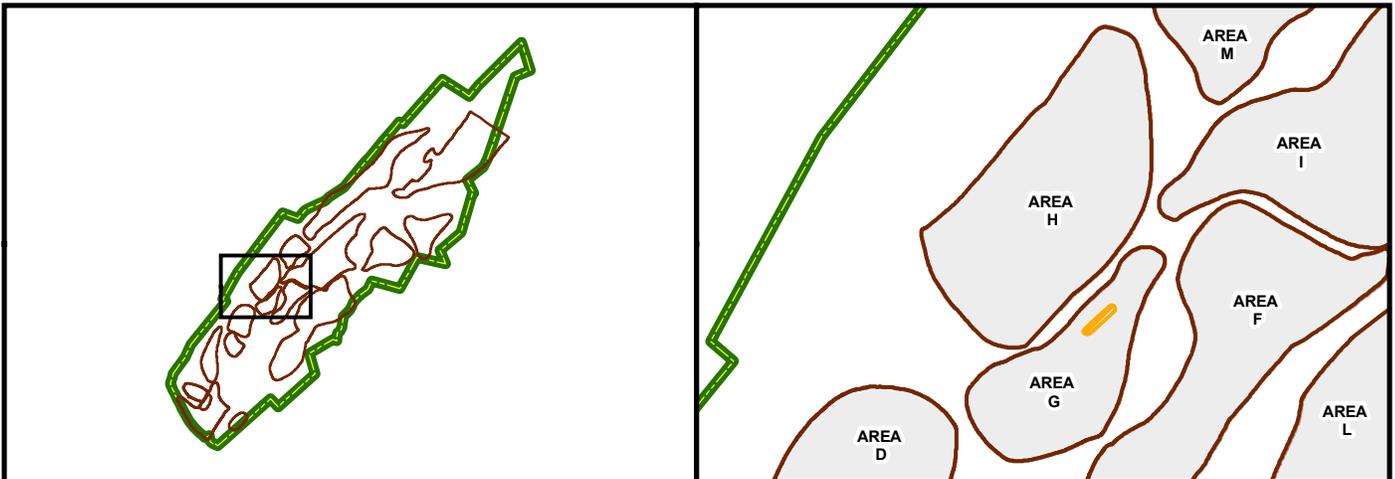
Legend

-  Installation Boundary
-  Area Boundary
-  Building
-  LUC Area of Applicability
-  LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-10
Site 143 (PICA-112)



Legend

-  Installation Boundary
-  Area Boundary
-  Building
-  LUC Area of Applicability
-  LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure D-11
Site 135 (PICA-118)

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 19, PICA-020

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (3)	yes 3	

4. Has any disturbance of soil taken place over the past year? _____ Yes X No

If Yes, describe below:

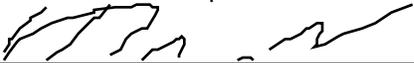
<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

building in previous years photo #1 has been demolished

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o□Site 19, PICA-020

Site Photographs



Photo 1: Notes

Surface condition. Building in previous years photo has been demolished.



Photo 2: Notes

Land use control sign

Annual Inspection Checklist for Land Use Evaluation

Site: Site 106, PICA-036

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (2)	yes 2	

4. Has any disturbance of soil taken place over the past year? Yes No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 106, PICA-036

Site Photographs



Photo 1: Notes
Land use control sign. Locked fence prohibiting unauthorized entry.



Photo 2: Notes
Surface conditions. No intrusive activity.

Annual Inspection Checklist for Land Use Evaluation

Site: o□ Site 106, PICA-036

Site Photographs



Photo 3: Notes
Land use control sign.

Annual Inspection Checklist for Land Use Evaluation

Site: ^o Site 28, PICA-070

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (11)	yes 2	

4. Has any disturbance of soil taken place over the past year? Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 28, PICA-070

Site Photographs



Photo 1: Notes
Land use control sign.



Photo 2: Notes
Integrity of surface. No disturbance indicated.

Annual Inspection Checklist for Land Use Evaluation

Site: ° Site 28, PICA-070

Site Photographs



Photo 3: Notes
Integrity of surface. No disturbance indicated.



Photo 4: Notes
Integrity of surface. No disturbance indicated.

Annual Inspection Checklist for Land Use Evaluation

Site: Site 163, PICA-092

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (3)	yes 3	

4. Has any disturbance of soil taken place over the past year? X Yes No

If Yes, describe below:

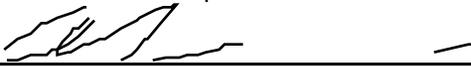
<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

Area behind signs in photo #1 has been re-landscaped

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 163, PICA-092

Site Photographs



Photo 1: Notes

Land use control sign. Area behind signs has been re-landscaped.



Photo 2: Notes

Surface cover no indication of intrusive activity or change of land use

Annual Inspection Checklist for Land Use Evaluation

Site: ° Site 163, PICA-092

Site Photographs



Photo 3: Notes
Land use control sign



Photo 4: Notes
Land use control sign

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 163, PICA-092

Site Photographs



Photo 5: Notes

Surface cover no indication of intrusive activity or change of land use.

Annual Inspection Checklist for Land Use Evaluation

Site: Site 86, PICA-095

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (2)	yes 2	

4. Has any disturbance of soil taken place over the past year? Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 86, PICA-095

Site Photographs



Photo 1: Notes

Land use control sign. No indication of changed land use or surface disturbance.



Photo 2: Notes

Land use control sign. No indication of changed land use or surface disturbance.

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 182, PICA-099

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stess	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (1)	No signs present	Sign will be replaced

4. Has any disturbance of soil taken place ove the past year? _____ Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 182, PICA-099

Site Photographs



Photo 1: Notes

Surface cover. No indication of intrusive activity or change of land use.



Photo 2: Notes

Surface cover. No indication of intrusive activity or change of land use.

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 183, PICA-100

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (1)	yes 1	

4. Has any disturbance of soil taken place over the past year? Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

Artillery weapons are now stored in this area, which were not present in previous years photos.

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 183, PICA-100

Site Photographs



Photo 1: Notes

Surface cover. No indication of intrusive activity or change of land use.

Annual Inspection Checklist for Land Use Evaluation

Site: Site 183, PICA-100

Site Photographs



Photo 2: Notes
Surface cover. Artillery weapons now present in this area.



Photo 3: Notes
Surface cover. Artillery weapons now present in this area.

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 124, PICA-105

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (2)	yes 2	

4. Has any disturbance of soil taken place over the past year? _____ Yes X No

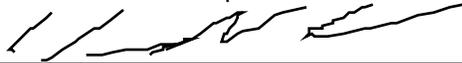
If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o□ Site 124, PICA-105

Site Photographs



Photo 1: Notes
Land use control sign.



Photo 2: Notes
surface conditions. previous location of buildings 164, 164a, 166, 167

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 141, PICA-110

1. Land Use Evaluation

Date 10/23/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (1)	yes 1	

4. Has any disturbance of soil taken place over the past year? Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/23/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 141, PICA-110

Site Photographs



Photo 1: Notes

Surface condition in the vicinity of building 429, no indication of intrusive activity or change

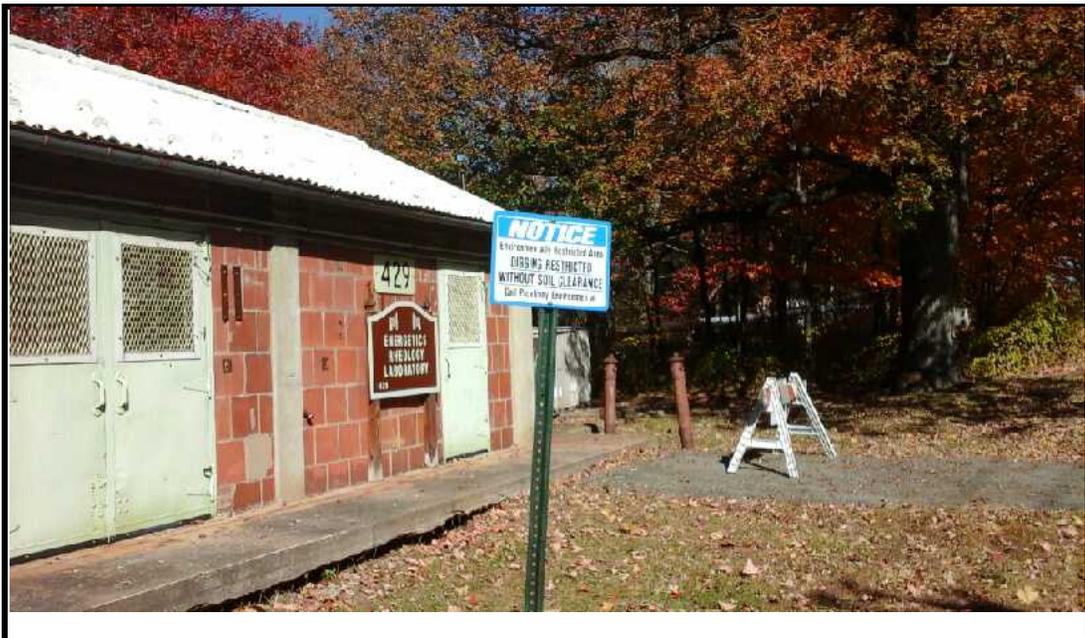


Photo 2: Notes

Land use control sign. Sign in different location than previous year.

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 143, PICA-112

1. Land Use Evaluation

Date 10/23/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (1)	yes 1	

4. Has any disturbance of soil taken place over the past year? Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/23/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: □ Site 143, PICA-112

Site Photographs



Photo 1: Notes
Surface condition mixed pavement and maintained grass areas.



Photo 2: Notes
Surface condition, no indication of intrusive activity or change of land use.

Annual Inspection Checklist for Land Use Evaluation

Site: □ Site 143, PICA-112

Site Photographs



Photo 3: Notes

Surface condition, no indication of intrusive activity or change of land use.

Annual Inspection Checklist for Land Use Evaluation

Site: ^o Site 135, PICA-118

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (1)	No, sign missing	Sign will be replaced.

4. Has any disturbance of soil taken place over the past year? Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

1 land use sign missing

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 135, PICA-118

Site Photographs



Photo 1: Notes

Land use control sign missing



Photo 2: Notes

Surface condition. No indication of intrusive activity or change of land use.

**Annual Land Use Certification for PICA020 Group of Sites
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Remedial Action Work Plan (RAWP) for PICA020 Group of Sites. The RAWP is in accordance with the PICA020 Group of Sites Record of Decision (ROD) signed by the Picatinny commander and USEPA Region 2 Director of the Emergency and Remedial Response Division on 3 July 2008 and 30 September 2008, respectively.

The PICA020 Group of Sites includes a group of 11 PICAs (RI Sites 19, 163, 86, 182, 183, 28, 106, 124, 141, 143, and 135, or PICAs 020, 092, 095, 099, 100, 070, 036, 105, 110, 112, and 118) at Picatinny, Rockaway Township, New Jersey.

1. Certification of LUC objectives outlined in Section 4.0 of the RAWP:

A. LUC Objective: To maintain the current industrial use of the property (in which human health is within acceptable risk levels):

- i. *Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates the sites included in the PICA-020 Group as an area with environmental restrictions. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

There has been no change in land use as outlined in Section 2.6, Current and Potential Land Uses, of the ROD.

The Picatinny Environmental Geographic Information System (GIS) incorporates the area of applicability of land use controls, sampling results, and other information. The GIS is incorporated into the new Master Plan by reference.

- ii. *Notification Requirements:* The land use has not changed; therefore, there was no need to notify the United States Environmental Protection Agency (USEPA) or New Jersey Department of Environmental Protection (NJDEP) of any land use changes in the past year.
- iii. *Posted Signs:* The condition of the signs is noted on the inspection forms. Signs are posted near the main access points of each site to prevent unauthorized entry and inappropriate activities.
- iv. *CERCLA Five –Year Reviews:* The Army will conduct Five Year Reviews as required by CERCLA and the NCP to determine if the LUC have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use without consulting the USEPA and NJDEP.
- v. *Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.

- vi. *Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at the PICA-020 Group of Sites.

B. LUC Objective: Prior to excavation of soils, require implementation of special handling procedures and permitting.

- i. *Site Clearance/Soil Management Procedures:* Site clearance/soil management procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
- ii. *MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

Appendix E

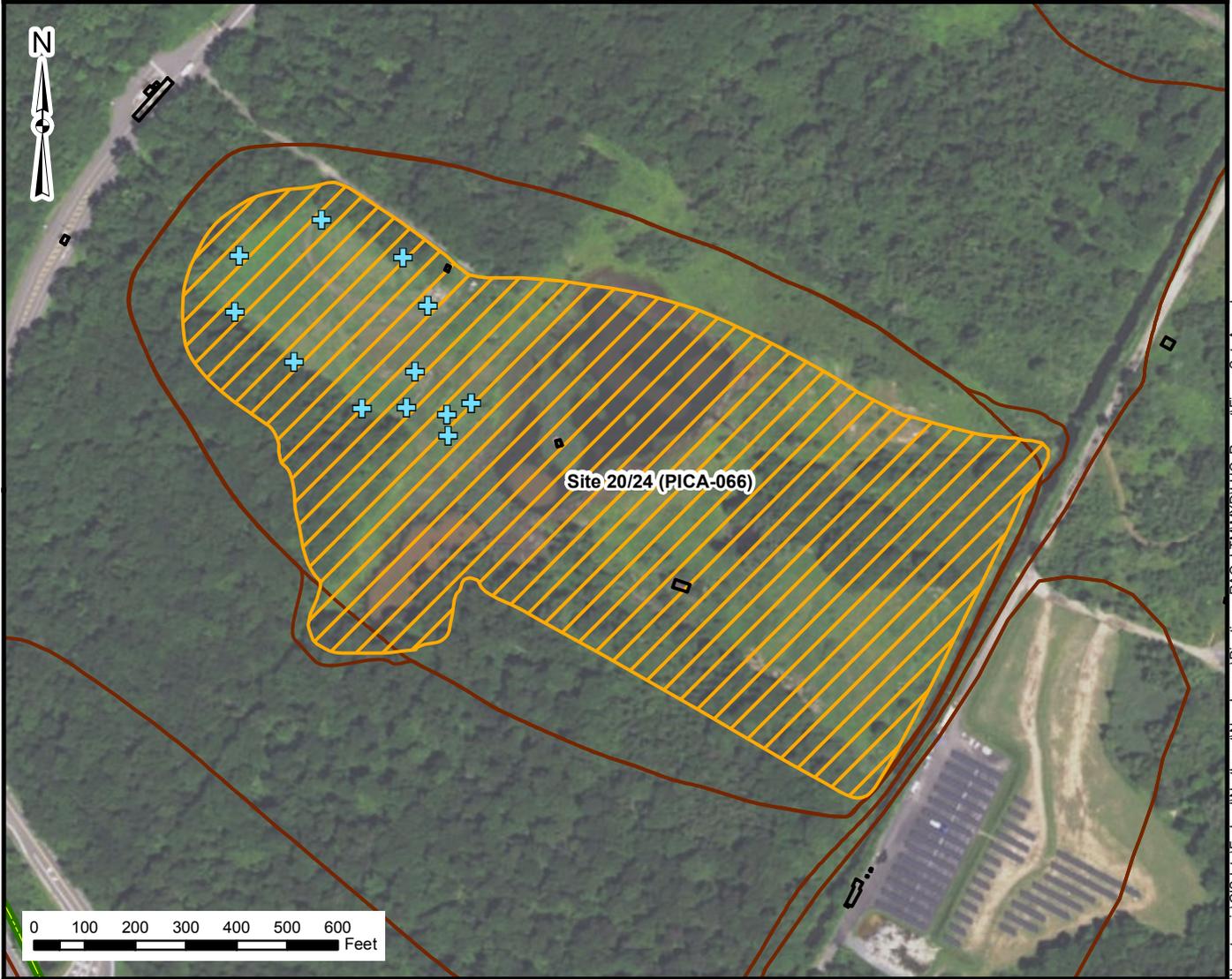
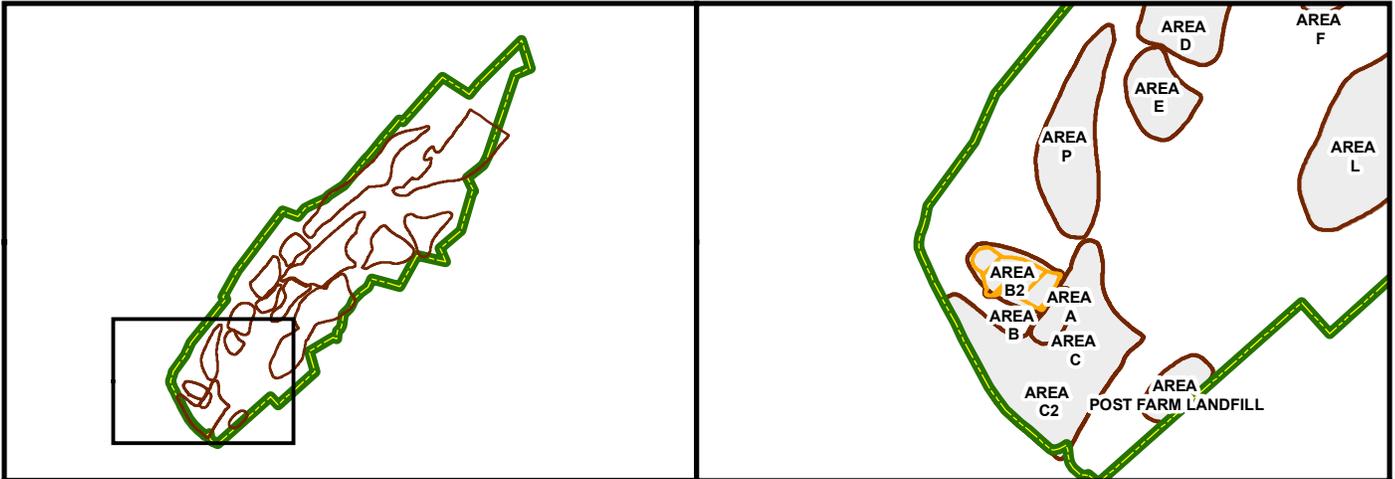
Site 20/24 (PICA-066), Site Figure

Site 20/24 (PICA-066), Site Photographs

Site 20/24 (PICA-066), Inspection Forms

**Site 20/24 (PICA-066), Land Use Control Objectives and
Annual Certification**

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Legend

- Installation Boundary
- Area Boundary
- Building
- LUC Area of Applicability
- + LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure E-1
Site 20/24 (PICA-066)

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.2 of the Land Use Control Plan for Site 20/24 (PICA 066)

1. Cap Integrity

Date 10/12/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action was taken:
 was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location Shown on Attached Map</u>
Cap Deterioration	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other	N		

3. Access Restrictions

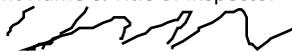
Is car gate locked? (Yes/No) _____ East Gate _____ West Gate

4. Signs appropriately posted:

<u>Sign noting the following (# of signs installed)</u>	<u>Yes / No / #</u>	<u>Corrective Action Taken</u>
Indicating location of cap (13)	Yes, 13	
Restricting excavation (4)	Yes, 4	
Unauthorized entry	Yes, 2	
Phone numbers of Safety, Security and installation restoration	Yes	

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/12/2015

Date

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.2 of the Land Use Control Plan for Site 20/24 (PICA 066)

Site Photographs

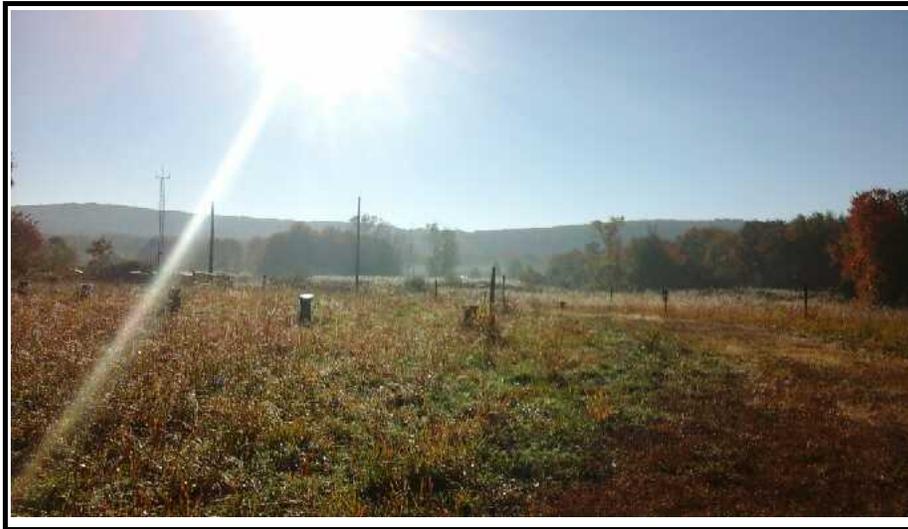


Photo 1: Surface cover; no indication of intrusive activity or change of land use



Photo 2: Surface cover and land use control signs

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.2 of the Land Use Control Plan for Site 20/24 (PICA 066)

Site Photographs



Photo 3: Surface cover; no indication of intrusive activity or change of land use



Photo 4: Land use control signs

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.2 of the Land Use Control Plan for Site 20/24 (PICA 066)

Site Photographs



Photo 5: Surface cover; no indication of intrusive activity or change of land use



Photo 6: Surface cover and land use control sign

**Annual Land Use Certification for Site 20/24 (PICA-066) Former Pyrotechnic Testing Range
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Land Use Control Implementation Plan (LUCIP) for Site 20/24 (PICA-066). The LUCIP is Attachment 1 of the Site 20/24 Record of Decision (ROD) signed by the Picatinny Commander and Regional Administrator of USEPA on May 29 and June 4, 2002 respectively.

Site 20/24 (PICA 066)

1. Certification of LUC objectives outlined in Section 5.0 of the LUCIP:

a. LUC Objective: Restriction of Site to Industrial Use:

- i. Picatinny Vision Plan: The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates the sites included within Site 20/24 (PICA-066) as an area with environmental restrictions. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

There has been no change in land use as outlined in Section 2.6, Current and Potential Land Uses, of the ROD. The land is still available for or used for pyro-range activities, Safe Haven parking, weather station use, and as a hunting area. During the past year, there were no pyro-range activities or Safe Haven parking activities. Information was gathered from the weather station periodically, and hunting occurred throughout the year. There has also been some ongoing work involving groundwater remediation activities related to the Area B Groundwater studies.

The Picatinny Environmental Geographic Information System (GIS) incorporates the as-builts, sampling results including the post-excavation data, and other information. The plan is to incorporate the GIS into the new Master Plan by reference.

- ii. Notification Requirements: Land use has not changed; therefore, there was no need to notify the United States Environmental Protection Agency (USEPA) or New Jersey Department of Environmental Protection (NJDEP) of any land use changes in the past year.

b. LUC Objective: To Ensure the Integrity of the Vegetative Cap

- i. Inspections: Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- ii. Access Restriction through Picatinny Base Access Regulations: Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Site 20/24 (PICA-066).
- iii. Posted Signs: The condition of the signs is noted in the inspection reports. Signs are posted near the main access points of each site and surrounding both vegetative soil covers to prevent unauthorized entry and inappropriate activities.

**Annual Land Use Certification for Site 20/24 (PICA-066) Former Pyrotechnic Testing Range
Picatinny Arsenal, New Jersey**

iv. Site Clearance/Soil Management Procedures: Site Clearance/Soil Management Procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.

c. **LUC Objective: Protection of Site Workers**

i. *Accident Prevention Plan:* An Accident Prevention Plan was approved by the Baltimore Corps of Engineers and Picatinny and implemented by the contractor.

ii. PTA Safety Program: There were no requirements.

iii. Posted Signs: Several signs are posted indicating that contaminated soils are present at the site. The signs indicate the location of the cap, restrictions prohibiting excavation and unauthorized vehicle entry, and provide the phone numbers of the Installation Restoration Office. The Installation Restoration Office refers inquiries to the Security and Safety Office of Picatinny for appropriate information regarding safety issues, security, and damage.

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Appendix F

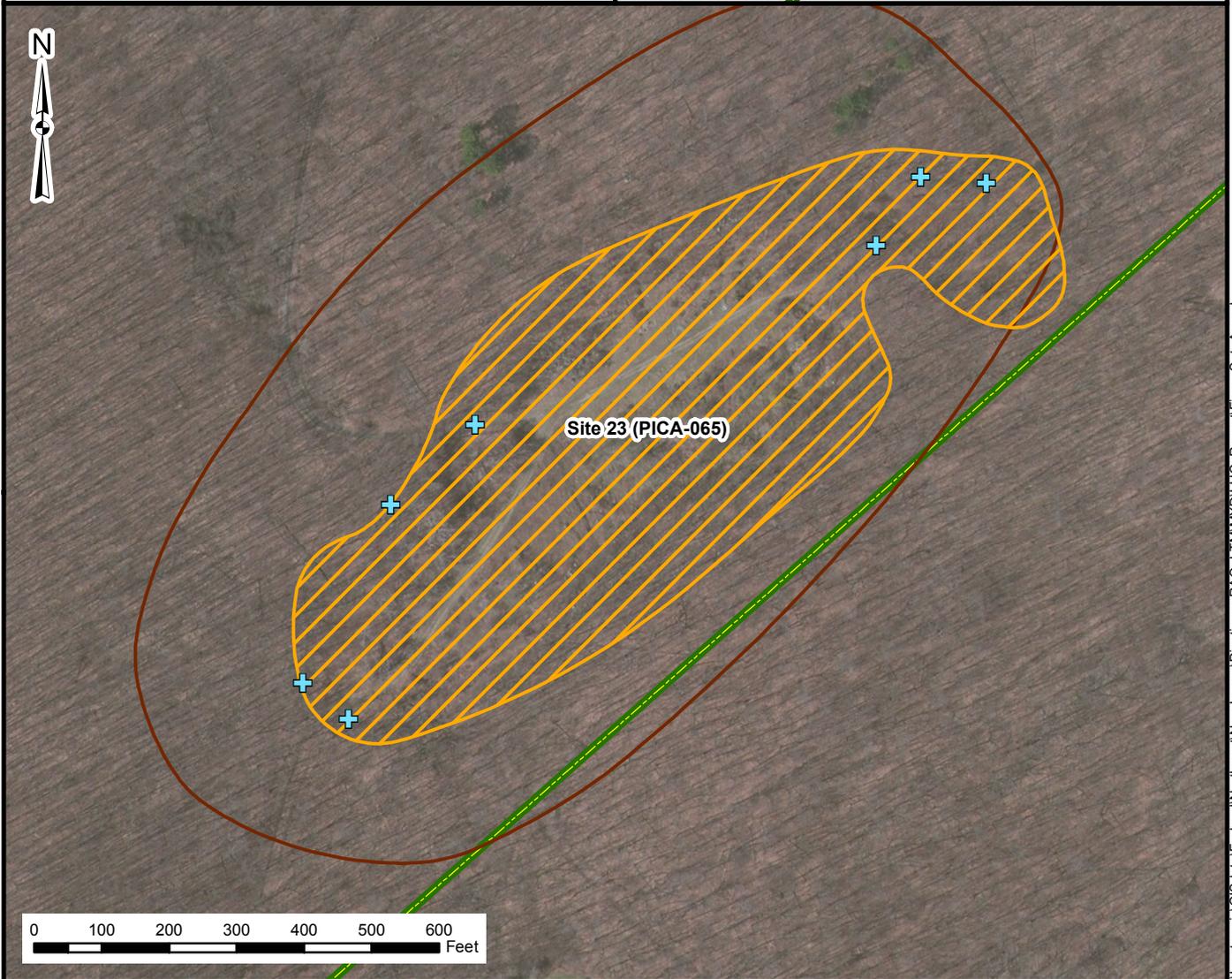
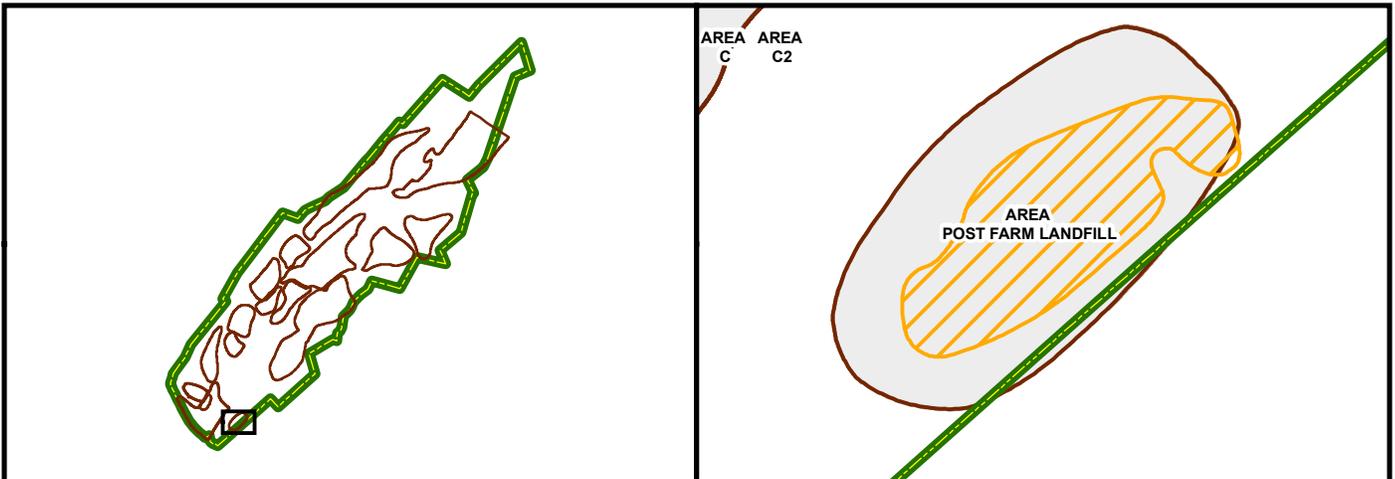
Site 23 (PICA-065), Site Figure

Site 23 (PICA-065), Site Photographs

Site 23 (PICA-065), Inspection Forms

**Site 23 (PICA-065), Land Use Control Objectives and
Annual Certification**

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Legend

- Installation Boundary
- Area Boundary
- LUC Area of Applicability
- + LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure F-1
Site 23 (PICA-065)

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.4.3.1 of the Remedial Design Plan for Site 23 (PICA 065)

1. Cap Integrity

Date 10/12/2015

1. Inspector walked over entire site

Yes No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Cap Deterioration	N		
Vegetative Stress	N		
Penetration due to animal pests	N		
Condition of Site Fencing	Good		
Signs of Erosion	N		
Other	N		

3. Are there signs of trespassing Yes No

4. Signs appropriately posted Yes No

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/12/2015

Date

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.4.3.1 of the Remedial Design Plan for Site 23 (PICA 065)

Site Photographs



Photo 1 : Land use control fencing in satisfactory condition



Photo 2: Land use sign and land use control fencing in satisfactory condition

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.4.3.1 of the Remedial Design Plan for Site 23 (PICA 065)

Site Photographs



Photo 3: Land use control fence in satisfactory condition



Photo 4: Surface cover; no indication of intrusive activity or change of land use

Annual Checklist to Ensure Integrity of Vegetative Cap and Fencing

Section 5.4.3.1 of the Remedial Design Plan for Site 23 (PICA 065)

Site Photographs



Photo 5: Monitoring well and land use control fence in satisfactory condition

**Annual Land Use Certification for Site 23 (PICA-065) Post Farm Landfill
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Remedial Design for Site 23 (PICA-065). The Remedial Design Plan is in accordance with the Site 23 Record of Decision (ROD) signed by the Picatinny commander and USEPA Region 2 Director of the Emergency and Remedial Response Division on September 3, 2004 and December 20, 2004, respectively.

1. **Certification of how LUC objectives outlined in Section 5 of the RD Plan:**
 - A. **LUC Objective: Ensure site conditions remain protective such that levels of COCs in site groundwater do not impact human receptors:**
 - i. *Groundwater Restrictions:* Site 23 is subject to the CEA and the following land use restrictions: No access or use of groundwater; no installation of potable water drinking wells; no installation of groundwater monitoring wells without the approval of the Picatinny Installation Restoration Project Manager.
 - B. **LUC Objective: Ensure site conditions remain protective such that levels of COCs in site groundwater does not migrate off site:**
 - i. *Groundwater Restrictions:* Site 23 is subject to the CEA and the following land use restrictions: No access or use of groundwater; no installation of potable water drinking wells; no installation of groundwater monitoring wells without the approval of the Picatinny Installation restoration Project Manager.
 - ii. *LTGM:* Implementation of LTGM program to monitor levels of COCs in groundwater is in effect at Site 23. Sampling will be conducted until the requirements of the exit strategy are satisfied.
 - C. **LUC Objective: Ensure site conditions remain protective such that human receptors do not contact fly ash buried at the site:**
 - i. *Inspections:* Inspection forms were developed and approved by the USEPA.
 - ii. *Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Site 23.
 - iii. *Posted Signs:* Signs are posted around the site to prevent unauthorized entry and inappropriate activities. The condition of the signs is noted in the attached inspection forms.
 - iv. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
 - v. *UXO Clearance procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

Appendix G

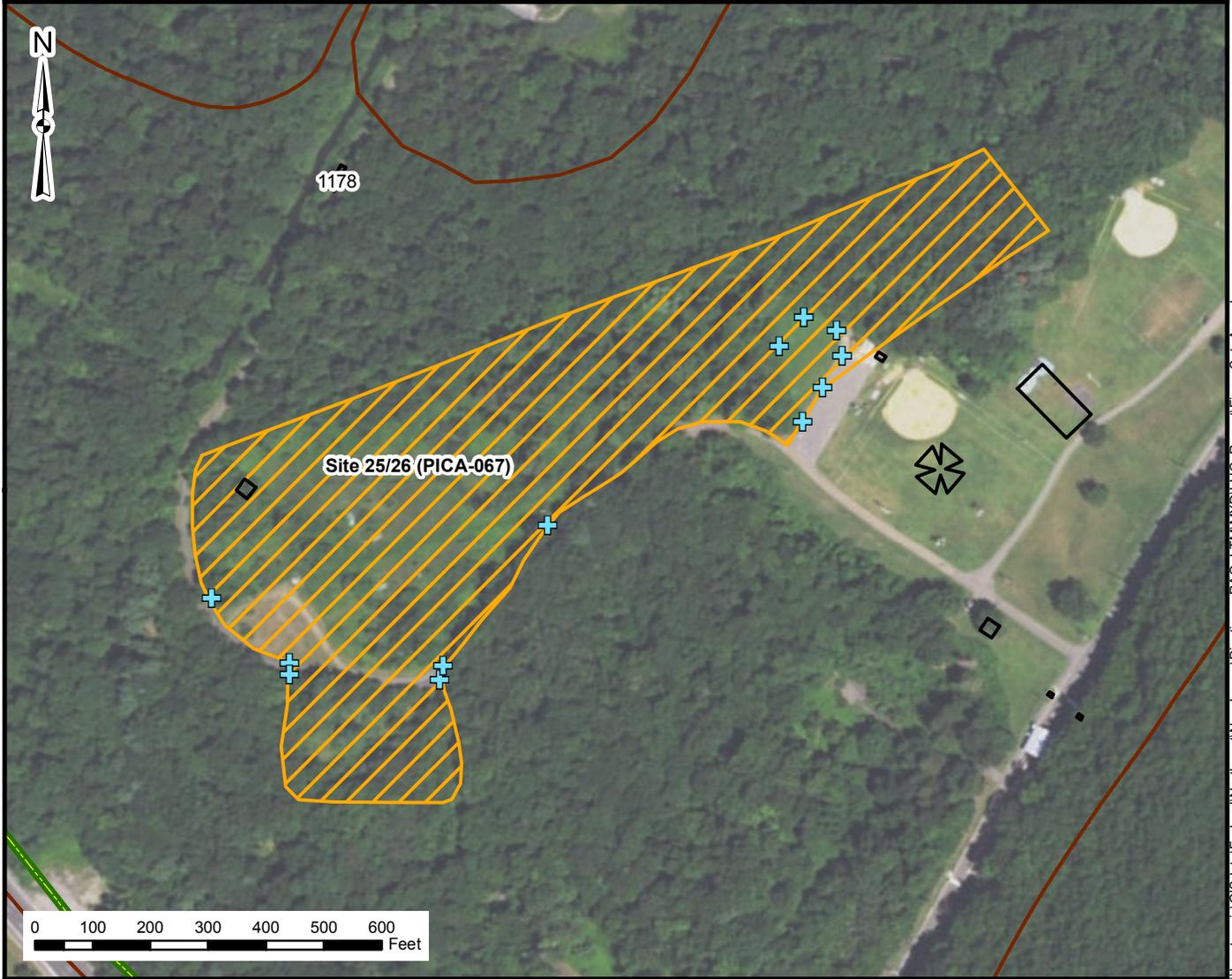
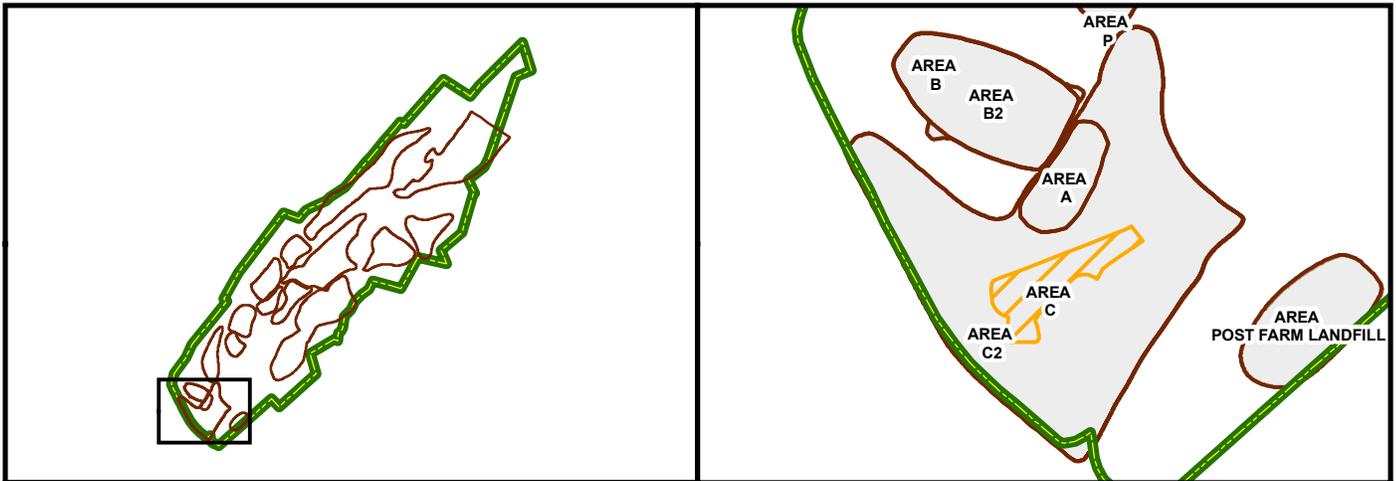
Site 25/26 (PICA-067), Site Figure

Site 25/26 (PICA-067), Site Photographs

Site 25/26 (PICA-067), Inspection Forms

**Site 25/26 (PICA-067), Land Use Control Objectives and
Annual Certification**

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Legend

-  Installation Boundary
-  Area Boundary
-  LUC Area of Applicability
-  LUC Sign Location
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure G-1
Site 25/26 (PICA-067)

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site 25/26 (PICA 067)

Date 10/12/2015

1. Cap Integrity

1. Inspector walked over entire site

 X Yes No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Cap Deterioration	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Signs of Erosion	N		
Other	N		

3. Signs appropriately posted:

<u>Sign noting the following (# of signs installed)</u>	<u>Yes / No / #</u>	<u>Corrective Action Taken</u>
Indicating Environmentally Restricted Area (6)	Yes 6	
Indicating location of vegetated soil cover (6)	Yes 6	

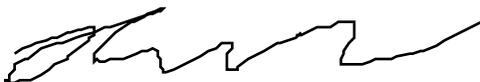
Print Name & Title of Inspector

John Vrabel

10/12/2015

Signature of Inspector

Date



Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site 25/26 (PICA 067)

Site Photographs



Photo 1: Monitoring well, note LUC sign in background.

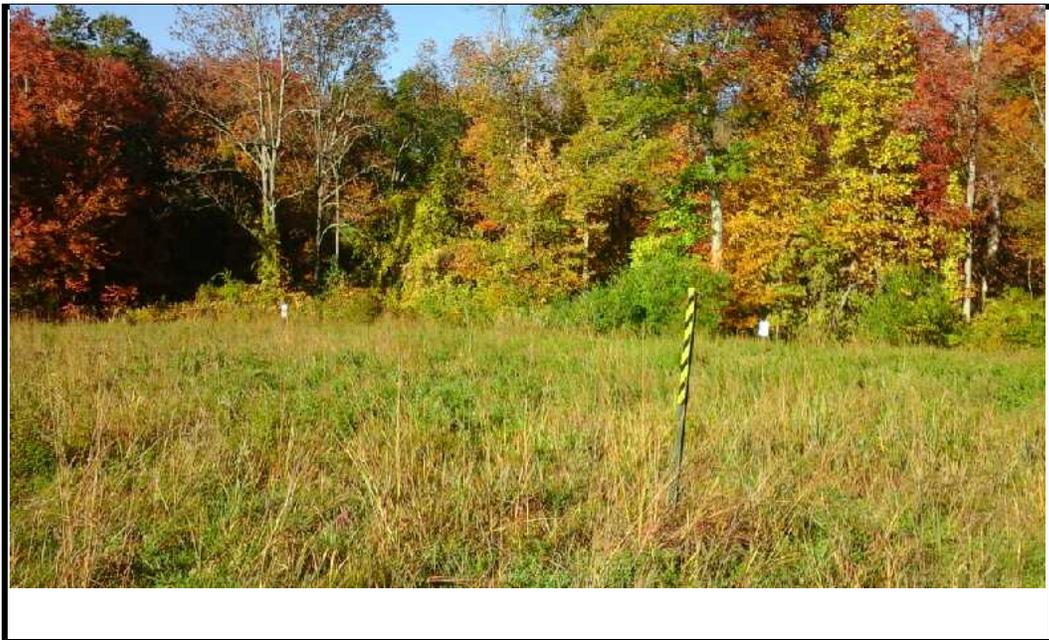


Photo 2: LUC signs and surface cover

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site 25/26 (PICA 067)

Site Photographs



Photo 3: LUC sign (left) and access gate



Photo 4: LUC sign

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site 25/26 (PICA 067)

Site Photographs



Photo 5: Notes



Photo 6: Notes

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site 25/26 (PICA 067)

Site Photographs



Photo 7: Notes

**Annual Land Use Certification for Site 25/26 (PICA-067) Sanitary Landfill Near Site 26
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Land Use Control Implementation Plan (LUCIP) for Site 25/26 (PICA-067). The LUCIP is stated in the Final Remedial Action Workplan for Site 25/26 and was signed by the Picatinny Commander and Regional Administrator of USEPA on January 26 and July 3, 2007 respectively.

1. Certification of LUC objectives outlined in Section 6.0 of the LUCIP:

a. LUC Objective: Restriction of Site to Industrial Use:

- i. Picatinny Vision Plan: The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates the sites included within Site 25/26 (PICA-067) as an area with environmental restrictions. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

There has been no change in land use as outlined in Section 2.2, Site Description, of the RAWP. The land is still available and used as a hunting area and is occasionally used by site workers for guidance system testing. During the past year, there was hunting that occurred throughout the year.

The Army anticipates this current land use continuing; however, the site is located within the EUL initiative area. If the Army leases the site, any future construction or land use will be equally protective of human health and the environmental as the remedy presented in the RAWP.

The Picatinny Environmental Geographic Information System (GIS) incorporates the as-builts, sampling results including the post-excavation data, and other information. The plan is to incorporate the GIS into the new Master Plan by reference.

- ii. Notification Requirements: Land use has not changed; therefore, there was no need to notify the United States Environmental Protection Agency (USEPA) or New Jersey Department of Environmental Protection (NJDEP) of any land use changes in the past year.

b. LUC Objective: To Ensure the Integrity of the Vegetative Cap

- i. Inspections: Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- ii. Access Restriction through Picatinny Base Access Regulations: Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Site 25/26 (PICA-067).
- iii. Posted Signs: The condition of the signs is noted on the inspection forms. Signs are posted near the main access points of each site to prevent unauthorized entry and inappropriate activities.
- iv. Site Clearance/Soil Management Procedures: Site Clearance/Soil Management Procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance

**Annual Land Use Certification for Site 25/26 (PICA-067) Sanitary Landfill Near Site 26
Picatinny Arsenal, New Jersey**

Policy now implemented through the Picatinny Environmental Management System

c. LUC Objective: Protection of Site Workers

- i. *Accident Prevention Plan:* An Accident Prevention Plan was approved by the Baltimore Corps of Engineers and Picatinny and implemented by the contractor.
- ii. PTA Safety Program: There were no requirements.
- iii. Posted Signs: Several signs are posted indicating that contaminated soils are present at the site. The signs indicate the location of the cap, restrictions prohibiting excavation and unauthorized vehicle entry, and provide the phone numbers of the Installation Restoration Offices. The Installation Restoration Office refers inquiries to the Security and Safety Office of Picatinny for appropriate information regarding safety issues, security, and damage.

Appendix H

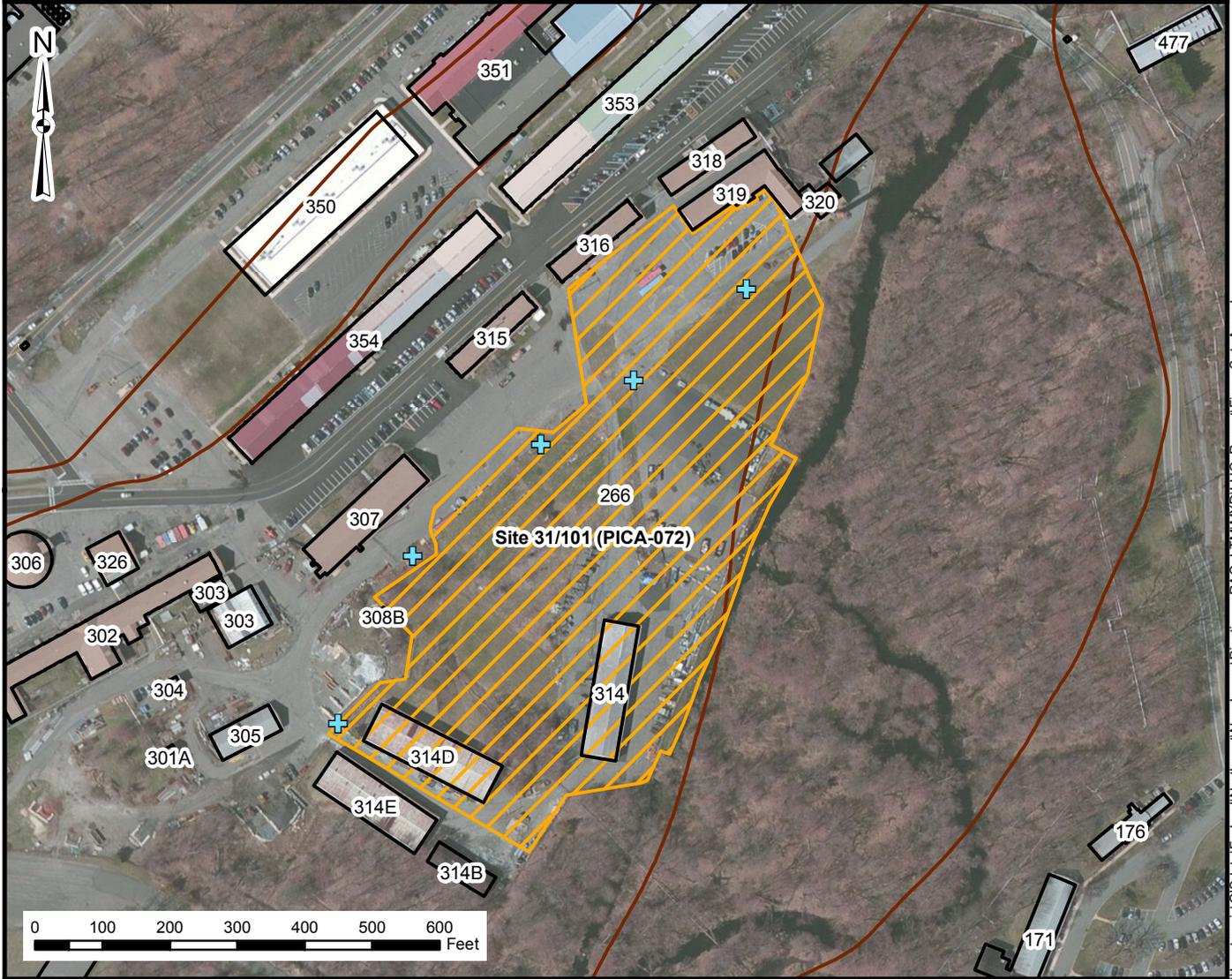
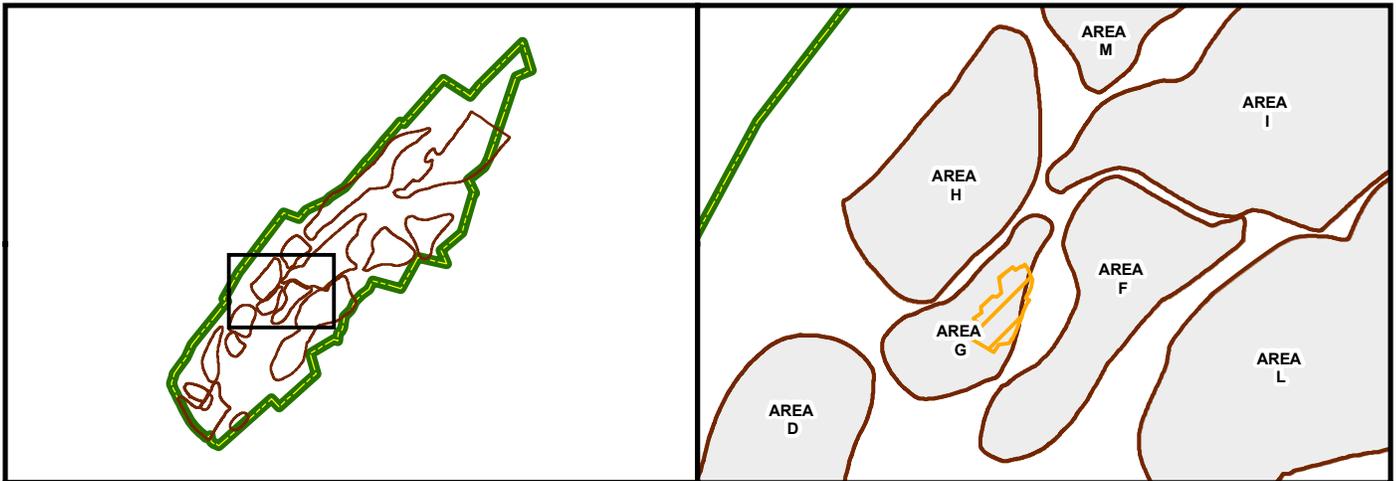
Site 31/101 (PICA-072), Site Figure

Site 31/101 (PICA-072), Site Photographs

Site 31/101 (PICA-072), Inspection Forms

**Site 31/101 (PICA-072), Land Use Control Objectives and
Annual Certification**

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Legend

-  Installation Boundary
-  LUC Area of Applicability
-  Area Boundary
-  LUC Sign Location
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure H-1
Site 31/101 (PICA-072)

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site : o Site 31/101 (PICA 72)

Date 10/15/2015

1. Cap Integrity

1. Inspector walked over entire site

Yes No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location Shown on Attached Map</u>
Cap Deterioration	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Signs of Erosion	N		
Other	N		

3. Signs appropriately posted:

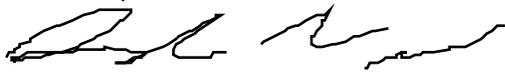
<u>Sign noting the following (# of signs installed)</u>	<u>Yes / No / #</u>	<u>Corrective Action Taken</u>
Indicating Environmentally Restricted Area (4)	Yes 4	

Print Name & Title of Inspector

John Vrabel

10/15/2015

Signature of Inspector



Date

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site : PICA 72

Site Photographs



Photo 5: Soil cover



Photo 6: Soil cover

**Annual Land Use Certification for Site 31/101 (PICA-072) Former DRMO Yard and Former Gas Station
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Final Remedial Action Work Plan, Sites 31 and 101 (PICA-072) Former DRMO Yard and Former Gas Station. The LUCIP is stated in the Final Remedial Action Workplan (RAWP). The Record of Decision (ROD) for Site 31/101 and was signed by the Picatinny Commander and Regional Administrator of USEPA on December 5, 2008 and June 9, 2009, respectively.

1. Certification of LUC objectives outlined in Section 7.2 of the RAWP:

a. LUC Objective: Control excavation at the Site through coordination with both Picatinny Environmental and the Safety Office:

- i. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
- ii. *Inspections:* Inspection forms were developed and approved by USEPA. The inspections were performed and the forms completed and signed. A copy of the site inspection is included as an attachment to this certification.
- iii. *Posted Signs:* The condition of the signs is as noted in the inspection reports. Signs are posted around the site to prevent unauthorized entry and inappropriate activities.

b. LUC Objective: Prevent the development and use of property for residential housing, elementary and secondary schools, child care facilities and playgrounds unless it can be shown that the site is suitable for unrestricted use and unlimited exposure

- i. *Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Site 31/101 (PICA-072) as an area with environmental restrictions. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

There has been no change in land use as outlined in Section 2.2, Site Description, of the RAWP. The land is still available and used as a roll-off and construction material staging area. During the past year, there was some work involving soil excavation, fence installation, and asphalt paving.

The Army anticipates this current land use continuing, however, any future construction and land use must be implemented in accordance with these LUCs to ensure any future construction and/or use of the site will be equally or more protective of human health and the environment.

The Picatinny Environmental Geographic Information System (GIS) incorporates the as-builts, sampling results including the post-excavation data, and other information. The plan is to incorporate the GIS into the new Master Plan by reference.

**Annual Land Use Certification for Site 31/101 (PICA-072) Former DRMO Yard and Former
Gas Station
Picatinny Arsenal, New Jersey**

- ii. *Inspections:* Inspection forms were developed and approved by USEPA. The inspections were performed and the forms completed and signed. A copy of the site inspection is included as an attachment to this certification.
 - iii. *Posted Signs:* The condition of the signs is as noted in the inspection reports. Signs are posted around the site to prevent unauthorized entry and inappropriate activities.
- c. **LUC Objective: Maintain the integrity of the engineering controls**
- i. *Inspections:* Inspection forms were developed and approved by USEPA. The inspections were performed and the forms completed and signed. A copy of the site inspection is included as an attachment to this certification.

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Appendix I

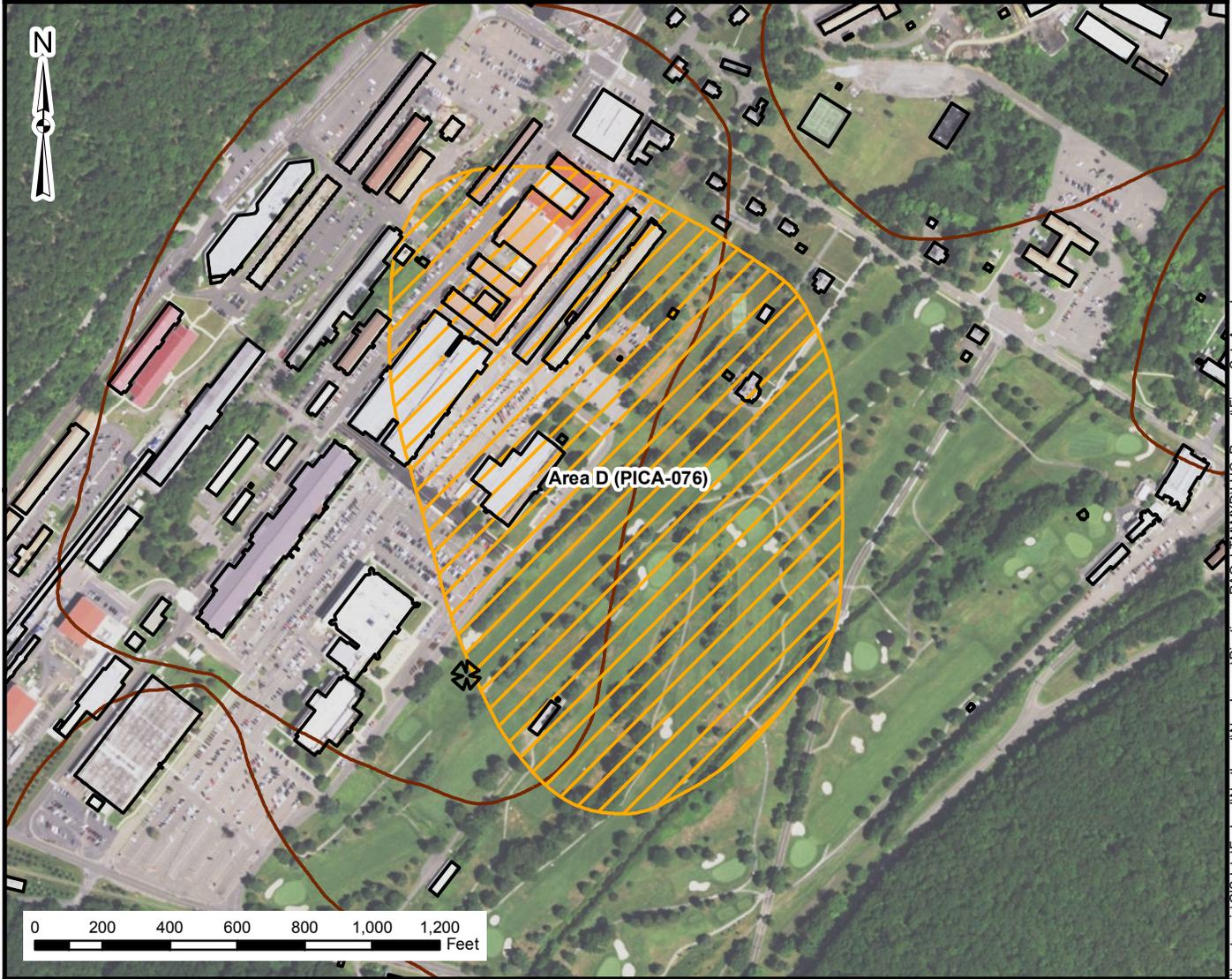
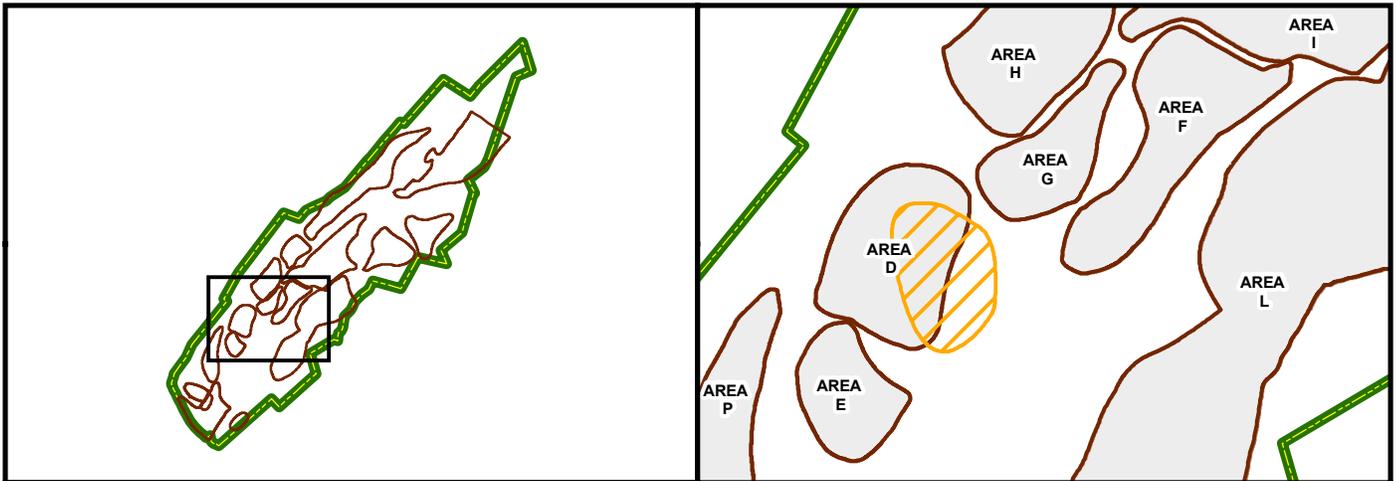
Area D (PICA-076) Groundwater, Site Figure

Area D (PICA-076) Groundwater, Site Photographs

Area D (PICA-076) Groundwater, Inspection Forms

**Area D (PICA-076) Groundwater, Land Use Control
Objectives and Annual Certification**

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Legend

- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure I-1
Area D (PICA-076)

Annual Inspection Checklist for Land Use Evaluation

Site: Site 37, PICA-076

1. Land Use Evaluation

Date 10/15/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Construction Activities	N		
Other	N		

3. Has any disturbance of soil taken place over the past year? X Yes No

If Yes, describe below:

<u>Soil Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>
Project # 3069	10/23/2014		B25 Remove abandoned RR track
Project # 4561	10/29/2014		Investigate and remove unused steam pits along Farley Ave

4. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o Site 37, PICA-076

Site Photographs



Photo 1: Surface cover



Photo 2: Surface cover

**Annual Land Use Certification for Area D (PICA-076) Groundwater
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Remedial Design (RD) and Addendum 01 (Land Use Control Plan) for Area D (PICA-076). The RD is in accordance with the Area D Record of Decision (ROD) signed by the Picatinny commander and USEPA Region 2 Director of the Emergency and Remedial Response Division on 4 April 2004 and 22 September 2004, respectively.

1. **Certification of LUC objectives outlined in Land Use Control Plan for Area D (Remedial Design Addendum 01):**

a. **LUC Objective: Control excavation without safeguards in all areas below the water table in the plume footprint through the soil management procedure**

- i. *Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection forms completed in 2009 is included as an attachment to this certification.
- ii. *Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Area D.
- iii. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System. There was one request submitted for activities at the site during 2009. Soil clearance 451 was submitted for the construction of a communication shelter associated with the Installation Information Infrastructure Modernization Program (I3MP) Project at Building 12 on the western boundary of Area D.
- iv. *MEC procedures:* Procedures for PTA areas were and will continue to be coordinated through the PTA Safety Office and EAD, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

b. **LUC Objective: Update Picatinny's existing Classification Exception Area (CEA) to specifically address the Area D groundwater plume**

- i. *Update CEA:* Upon approval of the RD, the CEA will be reviewed and updated as necessary with current site-specific conditions.
- ii. *Certification and Protectiveness Evaluation:* Annual certification of the CEA will be conducted using the NJDEP form included with the Area D Land Use Control Plan (Remedial Design, Addendum 01). The certification will include inspection and evaluation of (1) changes to laws and regulations, (2) future water uses, (3) changes to current water use (well search), (4) the integrity of monitoring wells associated with the CEA, (5) any land use disturbances within the CEA, and (6) analytical sampling results.

c. **LUC Objective: Incorporate Area D data into the Installation Restoration Program (IRP) GIS system**

- i. *Picatinny Vision Plan:* The Picatinny real Property Vision Plan was approved in November 2015. It references and incorporates the sites included within Area D as an area with environmental restrictions.

The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

The Picatinny Environmental Geographic Information System (GIS) incorporates the area of applicability of land use controls, sampling results, and other information. The plan is to incorporate the GIS into the new Vision Plan by reference.

d. LUC Objective: Comply with all NJDEP water allocation regulations

- i. Drinking Water Permit: Picatinny complied with monitoring and reporting requirements specified under the water allocation permit. The permit allows a total draw from the installation's production wells of no more than 55 million gallons per month at a maximum rate of 1,650 gallons per minute. The water allocation permit also specifies maximum yearly (1,788 million gallons) and monthly (149 million gallons) total combined draws of groundwater and surface water.

e. LUC Objective: Continue wellhead treatment and monitoring of potable water supply well 131

- i. Notification Requirements: During the long-term monitoring program at water supply well 131, any and all notifications, as described in Sections 4.8 and 4.9 of the Area D Land Use Control Plan, have and will be made to the regulators.
- ii. CERCLA Five –Year Reviews: The Army will conduct Five Year Reviews as required by CERCLA and the NCP to determine if the LUC have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and NJDEP.

Appendix J

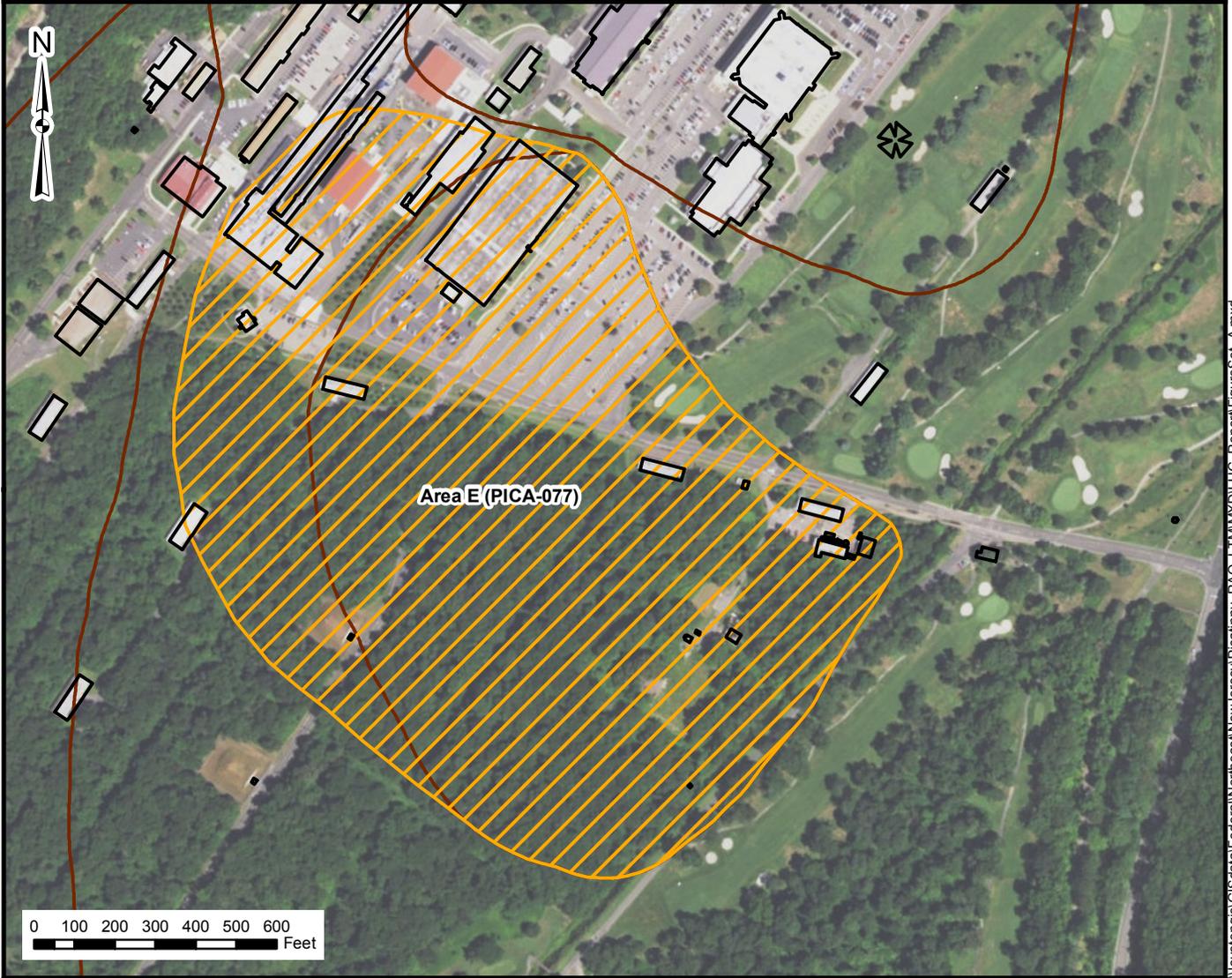
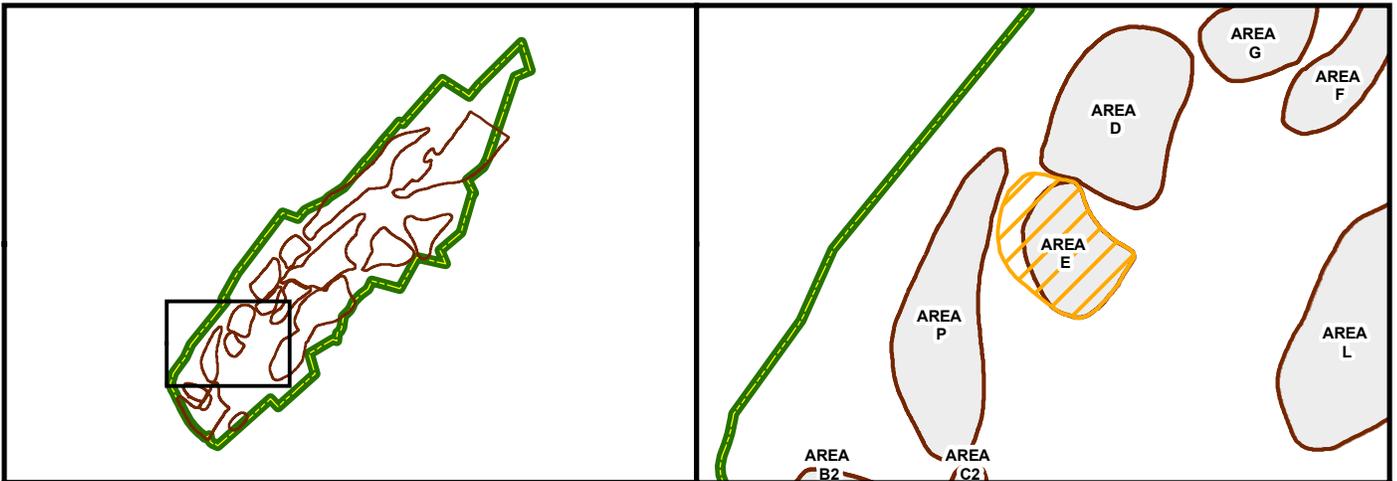
Area E (PICA-077) Groundwater, Site Figure

Area E (PICA-077) Groundwater, Site Photographs

Area E (PICA-077) Groundwater, Inspection Forms

**Area E (PICA-077) Groundwater, Land Use Control
Objectives and Annual Certification**

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Legend

- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure J-1
Area E (PICA-077)

Annual Inspection Checklist for Land Use Evaluation

Site: Site 38, PICA-077

1. Land Use Evaluation

Date 10/14/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Construction Activities	N		
Other	N		

3. Has any disturbance of soil taken place over the past year? Yes X No

If Yes, describe below:

Soil Clearance #	Date	Approval	Description

4. Other observations:

Building in picture 3 and 4 is building 95. Not building 92 as stated in previous years inspection.

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/14/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o Area E, PICA-077

Site Photographs



Photo 1: Notes
Land use control sign and integrity of surface cover.



Photo 2: Notes
Soil cover.

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: ^o Area E, PICA-077

Site Photographs



Photo 3: Notes
Asphalt parking lot at Southwest corner of building 95. Not building 92 as in previous years



Photo 4: Notes
Asphalt parking lot at Southwest corner of building 95.

**Annual Land Use Certification for Area E (PICA-077) Groundwater
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Remedial Design (RD) for Area E (PICA-077) Groundwater. The RD is in accordance with the Area E Record of Decision (ROD) signed by the Picatinny commander and USEPA Region 2 Director of the Emergency and Remedial Response Division on 24 July 2007 and 28 September 2007, respectively.

1. **Certification of LUC objectives outlined in Land Use Control Plan for Area E and Site 22 (Remedial Design, Section 5.0):**

A. **LUC Objective: Prevent access or use of the groundwater until cleanup levels are met.**

- i. *Inspections:* Inspection forms were developed and approved by the United States Environmental Protection Agency (USEPA). The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- ii. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
- iii. *MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.
- iv. *CERCLA Five –Year Reviews:* The Army will conduct Five Year Reviews as required by CERCLA and the NCP to determine if the LUC have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and NJDEP.

B. **LUC Objective: Maintain the integrity of any current or future remedial monitoring system such as monitoring wells.**

- i. *Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection forms is included as an attachment to this certification.

C. **LUC Objective: Implement a Classification Exception Area (CEA) (continuation of the existing CEA).**

- i. *Update CEA:* The CEA has been reviewed and updated as necessary with current site-specific conditions.
- ii. *Certification and Protectiveness Evaluation:* Biennial certification of the CEA will be conducted using the NJDEP form. The certification will include inspection and evaluation of (1) changes to laws and regulations, (2) future water uses, (3) changes to current water use (well search), (4) the integrity of monitoring wells associated with the CEA, (5) any land use disturbances within the CEA, and (6) analytical sampling results.

D. LUC Objective: Prohibit excavation without safeguards in all areas below the water table in the plume footprint.

- i. Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection forms is included as an attachment to this certification
- ii. Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Area E.
- iii. Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. The implementation of the policy is managed by Chugach Inc.
- iv. MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

E. LUC Objective: Control access to the site by continued implementation of existing access restrictions.

- i. Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification
- ii. Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Area E.
- iii. Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. The implementation of the policy is managed by Chugach Inc.
- iv. MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

F. LUC Objective: Maintain existing cover materials including grass, pavement, and building foundations.

- i. Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification
- ii. Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security

violations at Area E.

- iii. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. The implementation of the policy is managed by Chugach Inc.
- iv. *MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

G. LUC Objective: Control exposure to contaminants in subsurface soil by prohibiting excavation without proper safeguards in accordance with approved procedures.

- i. *Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification
- ii. *Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Area E.
- iii. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. The implementation of the policy is managed by Chugach Inc.
- iv. *MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

H. LUC Objective: Prevent the development and use of property for residential housing, elementary schools, child-care facilities and playgrounds that would lead to unacceptable risk.

- i. *Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Area E (PICA-077) Groundwater. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

The Picatinny Environmental Geographic Information System (GIS) incorporates the area of applicability of land use controls, sampling results, and other information.

- ii. *Notification Requirements:* Land use has not changed, therefore, there was no need to notify the United States Environmental Protection Agency

(USEPA) or New Jersey Department of Environmental Protection (NJDEP) of any land use changes in the past year.

- iii.* CERCLA Five –Year Reviews: The Army will conduct Five Year Reviews as required by CERCLA and the NCP to determine if the LUC have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and NJDEP.

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Appendix K

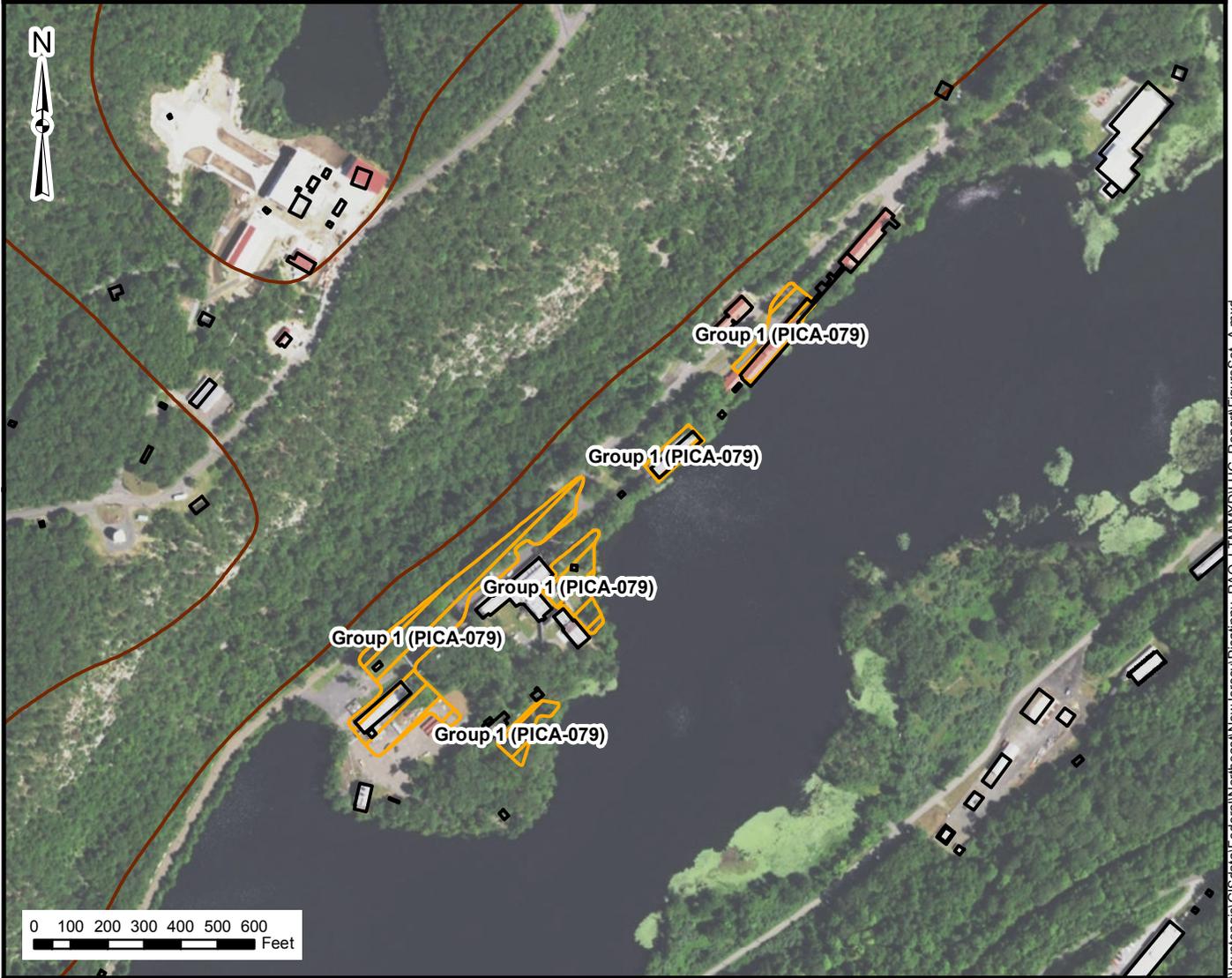
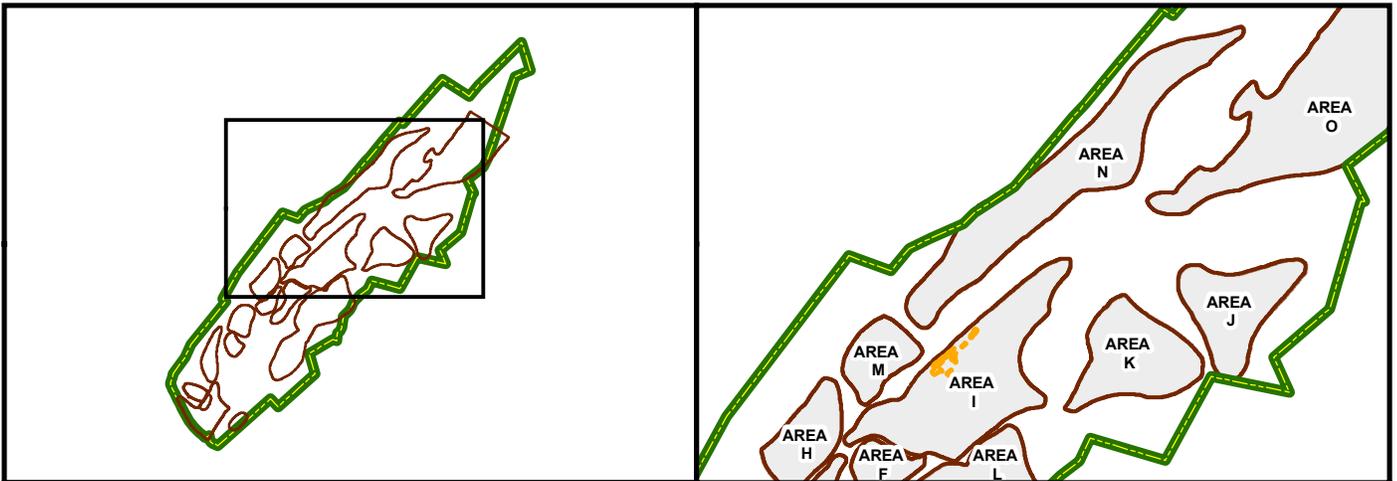
Group 1 Sites (PICA-079) Groundwater, Site Figure

Group 1 Sites (PICA-079) Groundwater, Site Photographs

Group 1 Sites (PICA-079) Groundwater, Inspection Forms

**Group 1 Sites (PICA-079) Groundwater, Land Use Control
Objectives and Annual Certification**

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Legend

- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure K-1
Group 1 (PICA-079)

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o Group 1, PICA-079

1. Land Use Evaluation

Date 10/13/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Signs of Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Signs of Erosion	N		
Other	N		

3. Has any disturbance of soil taken place over the past year? X Yes _____ No

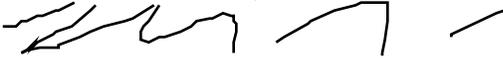
If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>
Service Order B26773/Project # 5005	10/26/2015		Backfill a sink hole forming in front of building 816

4. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/13/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o Group 1, PICA-079

Site Photographs



Photo 1: Monitoring wells and surface cover, no indication of intrusive activity or change of land use

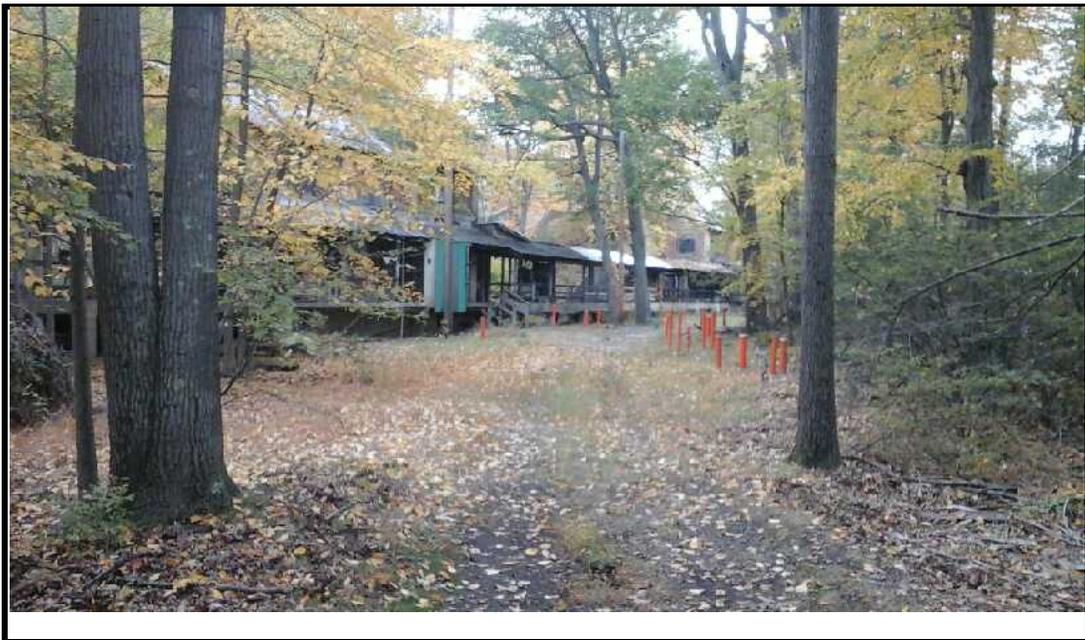


Photo 2: Monitoring wells and surface cover no indication of intrusive activity or change of land use

**Annual Certification of Land Use
Controls (LUCs) for Group 1 Sites (PICA-079)
Picatinny, New Jersey**

This certification is being made in accordance with the Remedial Action Work Plan (RAWP) for Group 1 Sites (PICA-079). The RAWP is in accordance with the Group 1 Sites (PICA-079) Record of Decision (ROD) signed by the Picatinny commander and United States Environmental Protection Agency (USEPA) Region 2 Director of the Emergency and Remedial Response Division in July 2010 and August 2010, respectively.

1. **Certification of Point of Contact:** Mr. Ted Gabel is the designated point-of-contact for monitoring, maintaining, and enforcing the Site specific Land Use Controls (LUCs) as specified in Section 6.0 of the RAWP.
2. **Certification of Commitment to Funding:** Currently EA Engineering, Science and Technology, Inc., PBC (EA) has been awarded the Performance Based Contract (PBC) Contract Line Item Numbers (CLINs) for continued monitoring and maintenance until 2016 with options through 2020. For future LUCs costs, the AEDB-R database's Cost-to-Complete constrained budget includes adequate funding to comply with the LUC Implementation Plan (LUCIP).
3. **Certification of how LUCs objectives outlined in Section 6.0 of the RAWP:**
 - A. LUC objective: Prohibit the development and use of property for residential housing, elementary and secondary schools, child-care facilities and playgrounds that result in unacceptable risks:**
 1. *Inspections:* Annual Inspection forms were developed and approved by the USEPA. These forms are included with this certification.
 2. *Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Group 1 Sites (PICA-079).
 3. *Picatinny Vision Plan:* As required by the regulations, Master Planning for Army Installations, AR 210-20, on July 13, 1987, Picatinny Arsenal has developed a Real Property Vision Plan to guide the development, approval, and implementation of building projects at Picatinny Arsenal. This Master Plan regulation provides for comprehensive planning at Army installations and not only allows, but requires, incorporation of existing land use and conditions into the plan. The Picatinny Office of the Chief Engineer in the Public Works Directorate is in charge of the plan. Picatinny Arsenal's most recent plan is the Real Property Vision Plan dated November 2015. It references and incorporates Group 1 Sites (PICA 079). The Vision Planner is currently fully cognizant of the restrictions of the LUCIP and would incorporate those in any planned actions at the site.
 4. *Notifications requirements:* If the land use at Group 1 Sites (PICA-079) were to change, any and all notifications, as described in Section 6.4.3.5 of the RAWP, will be made to the regulators. Currently the land use has not changed; therefore, there was no need to notify the USEPA or New Jersey

Department of Environmental Protection (NJDEP) of any land use changes in the past year.

B. LUC Objective: Maintain of any current of future monitoring systems such as monitoring wells:

1. *Inspections:* Annual Inspection forms were developed and approved by the EPA. These forms are included with this certification.
2. *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Five –Year Reviews:* The Army will conduct Five Year Reviews as required by CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to determine if the LUCs have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and NJDEP.

C. Maintain the Classification Exemption Area (CEA) and prevent access of use of the groundwater until cleanup levels are met.

1. *Inspections:* Annual Inspection forms were developed and approved by the EPA. These forms have been included as an Appendix to the RAWP.
2. *Bi-Annual CEA Submittal:* Procedures for updating the CEA at Picatinny are coordinated through the Picatinny Environmental Affairs Division and submitted to NJDEP every 2 years. EA, the Army's contractor will be responsible for this submittal through 2016. The results of groundwater monitoring of groundwater in accordance with the ROD and subsequent CERCLA 5 year reviews will document when groundwater cleanup levels are met.

Appendix L

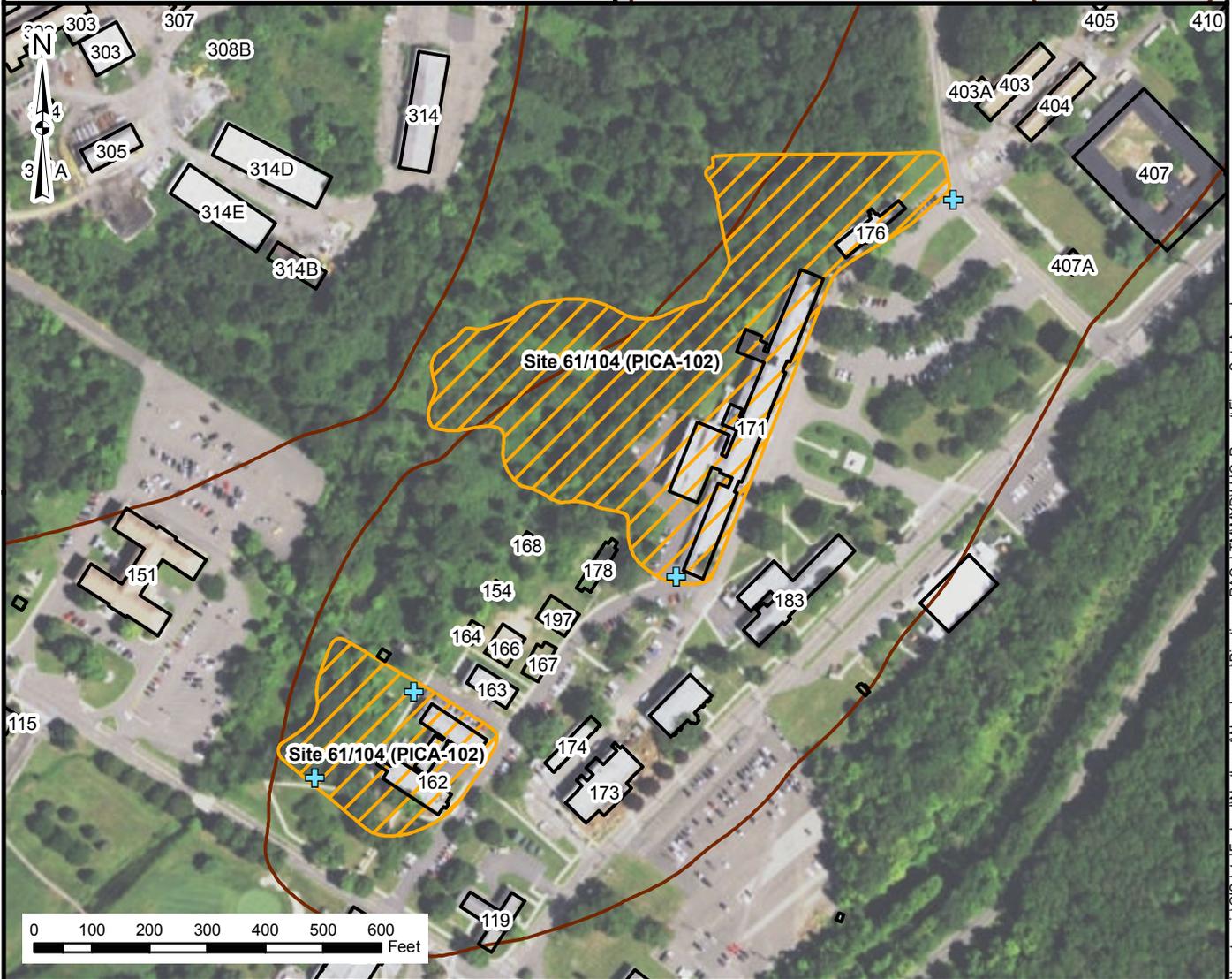
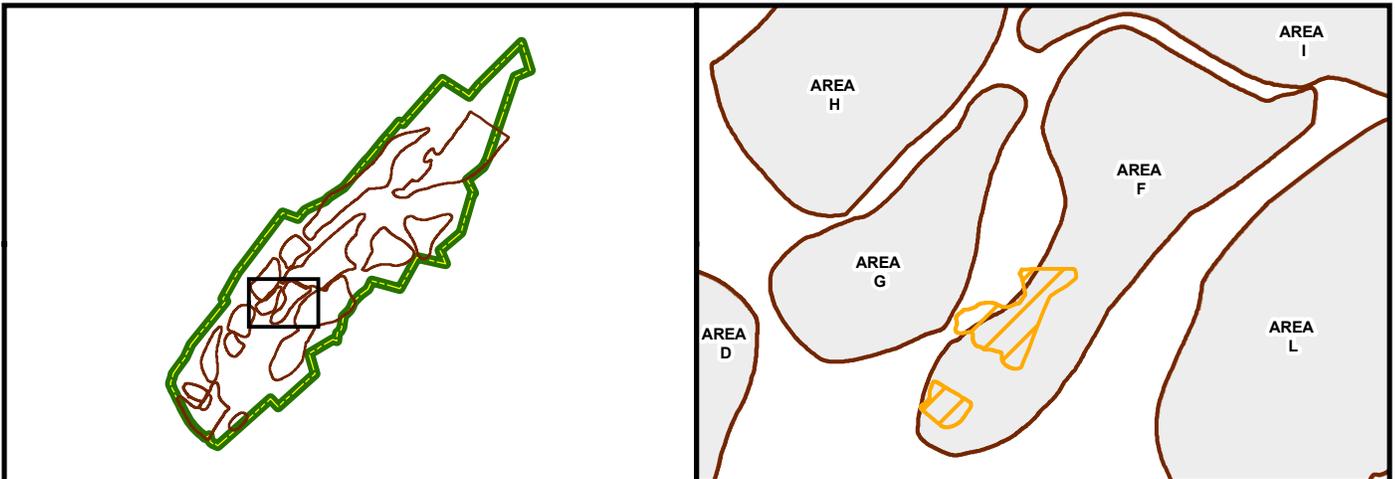
Site 61/104 (PICA-102), Site Figure

Site 61/104 (PICA-102), Site Photographs

Site 61/104 (PICA-102), Inspection Forms

**Site 61/104 (PICA-102), Land Use Control Objectives and
Annual Certification**

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Legend

-  Installation Boundary
-  LUC Area of Applicability
-  Area Boundary
-  LUC Sign Location
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure L-1
Site 61/104 (PICA-102)

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site : o Site 61/104 (PICA 102)

Date 10/14/2015

1. Cap Integrity

1. Inspector walked over entire site

Yes No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location Shown on Attached Map</u>
Cap Deterioration	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Signs of Erosion	N		
Other	N		

3. Signs appropriately posted:

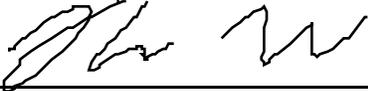
<u>Sign noting the following (# of signs installed)</u>	<u>Yes / No / #</u>	<u>Corrective Action Taken</u>
Indicating Environmentally Restricted Area (4)	Yes 2	2 signs in site 61 missing; will be replaced.

Print Name & Title of Inspector

John Vrabel

10/14/2015

Signature of Inspector



Date

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site: o□ Site 61/104 (PICA 102)

Site Photographs



Photo 1: Soil Cover. LUC sign missing



Photo 2: Soil cover

Annual Checklist to Ensure Integrity of Vegetative Soil Cover

Site : o□ Site 61/104 (PICA 102)

Site Photographs



Photo 3: Asphalt and soil cover.

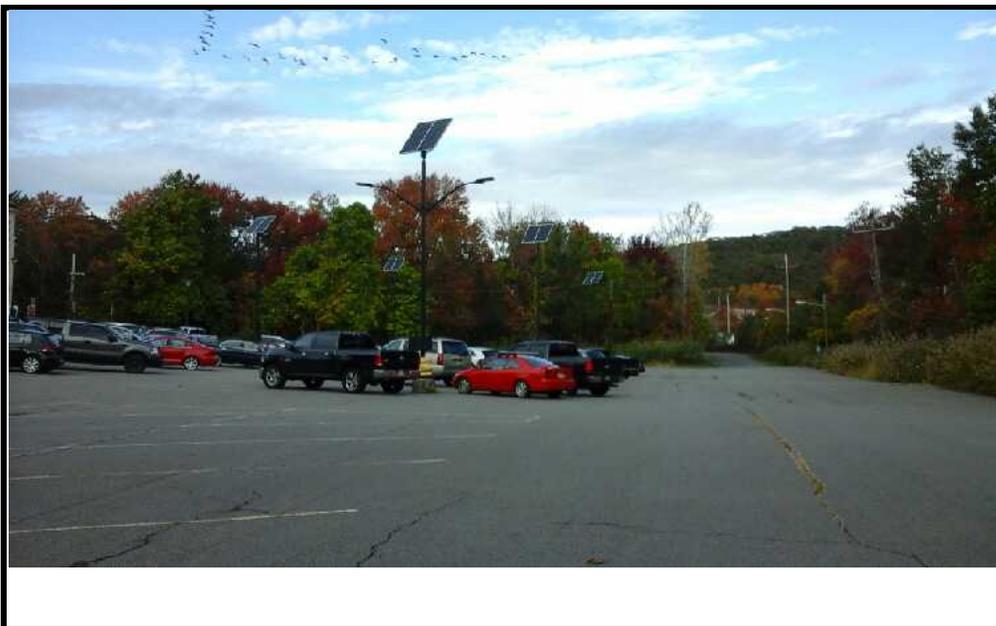


Photo 4: Asphalt parking lot.

**Annual Land Use Certification for Site 61/104 (PICA-102)
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Land Use Control Implementation Plan (LUCIP) for Site 61/104 (PICA-102). The LUCIP is stated in the Final Remedial Action Workplan (RAWP). The Record of Decision (ROD) for Site 61/104 and was signed by the Picatinny Commander and Regional Administrator of USEPA on November 7, 2008 and March 17, 2009, respectively.

1. Certification of LUC objectives outlined in Section 6.2 of the RAWP:

a. LUC Objective: Prohibit the development and use of property for residential housing, elementary and secondary schools, child care facilities and playgrounds unless it can be shown that the site is suitable for unrestricted use and unlimited exposure

- i. Picatinny Vision Plan: The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Site 31/101 (PICA-072) as an area with environmental restrictions. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

There has been no change in land use as outlined in Section 2.2, Site Description, of the RAWP. The land is still used as an outdoor smoking area and picnic area for occupants of Building 162.

The Army anticipates this current land use continuing, however, any future construction and land use must be implemented in accordance with these LUCs to ensure any future construction and/or use of the site will be equally or more protective of human health and the environment.

The Picatinny Environmental Geographic Information System (GIS) incorporates the as-builts, sampling results including the post-excavation data, and other information. The plan is to incorporate the GIS into the Vision Plan by reference.

- ii. *Inspections:* Inspection forms were developed and approved by USEPA. The inspections were performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- iii. *Posted Signs:* The condition of the signs is as noted in the inspection reports. Signs are posted around the site to prevent unauthorized entry and inappropriate activities.

b. LUC Objective: Maintain integrity of engineering controls

- i. *Inspections:* Inspection forms were developed and approved by USEPA. The inspections were performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- ii. *Posted Signs:* The condition of the signs is as noted in the inspection reports. Signs are posted around the site to prevent unauthorized entry and inappropriate activities.

**Annual Land Use Certification for Site 61/104 (PICA-102)
Picatinny Arsenal, New Jersey**

c. LUC Objective: Control excavation at the Site through coordination with both Picatinny Environmental and the Safety Office:

- i. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
- ii. *Inspections:* Inspection forms were developed and approved by USEPA. The inspections were performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- iii. *Posted Signs:* The condition of the signs is as noted in the inspection reports. Signs are posted around the site to prevent unauthorized entry and inappropriate activities.

Appendix M

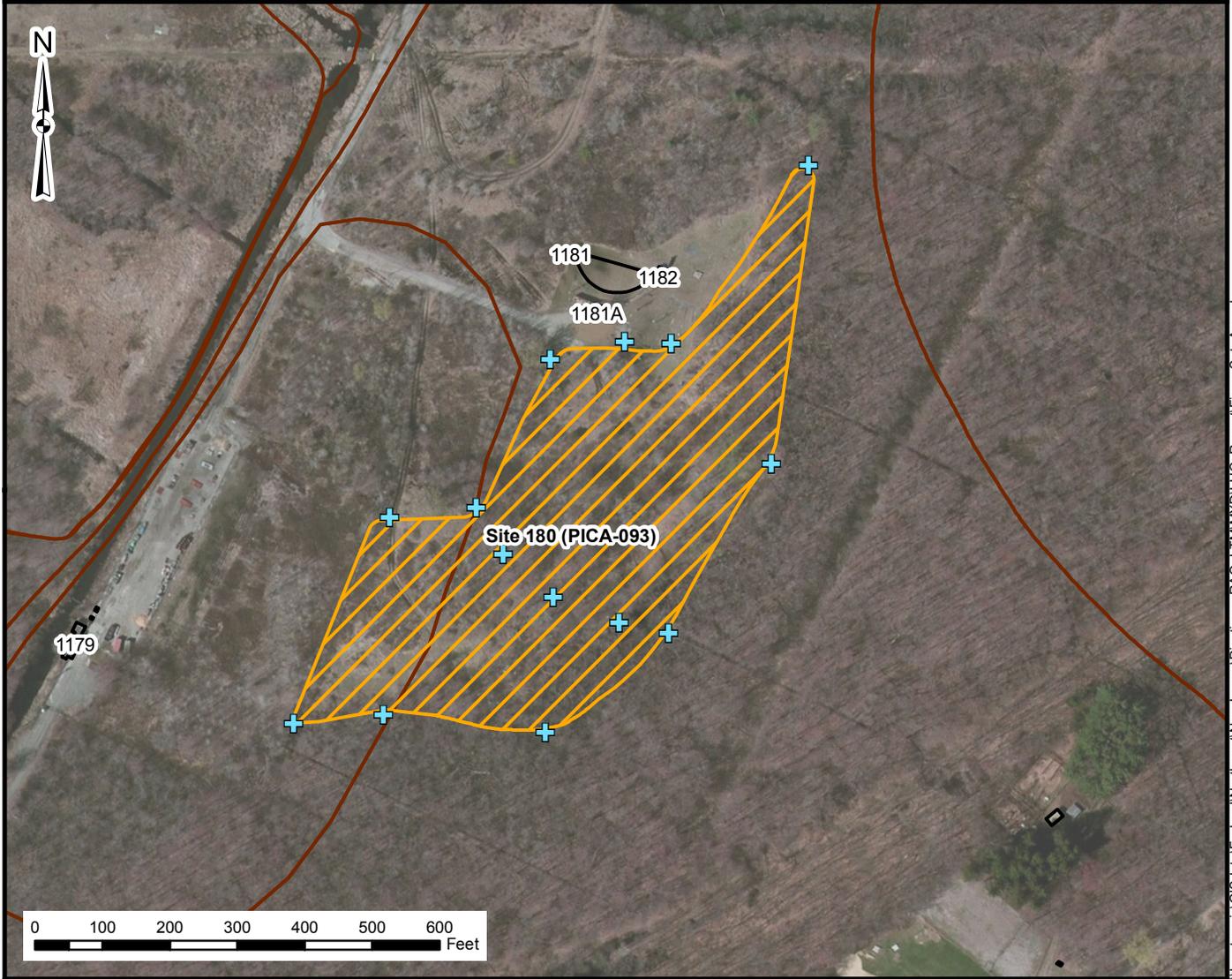
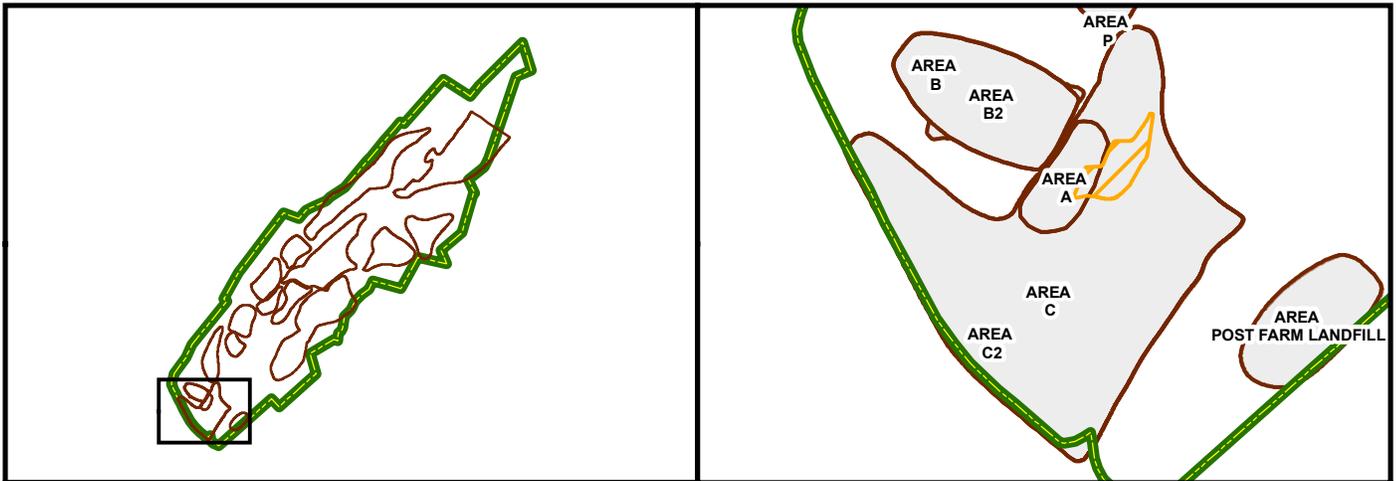
Site 180 (PICA-093), Site Figure

Site 180 (PICA-093), Site Photographs

Site 180 (PICA-093), Inspection Forms

**Site 180 (PICA-093), Land Use Control Objectives and
Annual Certification**

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Legend

- Installation Boundary
- Area Boundary
- Building
- LUC Area of Applicability
- LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure M-1
Site 180 (PICA-093)

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: Site 180, PICA-093

1. Land Use Evaluation

Date 10/23/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stess	N		
Unwanted Vegetation	N		
Construction Activities	N		
Signs of Erosion	N		
Other	N		

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (11)	Yes 11	

4. Has any disturbance of soil taken place ove the past year? Yes X No

If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/23/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: Site 180, PICA-093

Site Photographs



Photo 1: Soil cover



Photo 2: Soil cover and land use control sign in the background

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: Site 180, PICA-093

Site Photographs



Photo 3: Gravel access road



Photo 4: Land use control sign

**Annual Land Use Certification for Site 180 (PICA-093) Waste Burial Area Near Sites 19 & 34
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Remedial Action Work Plan (RAWP) for Site 180 (PICA-093). The RAWP is in accordance with the Site 180 Record of Decision (ROD) signed by the Picatinny commander and USEPA Region 2 Director of the Emergency and Remedial Response Division on September 17, 2007 and September 28, 2007, respectively.

1. **Certification of how LUC objectives outlined in Section 4.0 of the RAWP:**

A. **LUC Objective: To maintain an exposure scenario (such as hunting) in which human health is protected:**

- i. *Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection forms is included as an attachment to this certification.
- ii. *Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Site 180 (PICA-093).
- iii. *Posted Signs:* Signs are posted around the site to prevent unauthorized digging. The conditions of these signs are noted in the attached inspection forms.
- iv. *Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
- v. *MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAO, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

B. **LUC Objective: Restrict a residential scenario until such time as contaminants attenuate to allow for unrestricted use:**

- i. *Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Site 180 (PICA-093) as an area with environmental restrictions. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

There has been no change in land use as outlined in Section 2.6, Current and Potential Land Uses, of the ROD. The land is still used for hunting.

The Picatinny Environmental Geographic Information System (GIS) incorporates the area of applicability of land use controls, sampling results, and other information. The plan is to incorporate the GIS into the new Vision Plan by reference.

- ii. *Notification Requirements:* The land use has not changed, therefore, there was no need to notify the United States Environmental Protection Agency (USEPA) or New Jersey Department of

Environmental Protection (NJDEP) of any land use changes in the past year

- iii.* CERCLA Five –Year Reviews: The Army will conduct Five Year Reviews as required by CERCLA and the NCP to determine if the LUC have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and NJDEP.

C. LUC Objective: Provide a contingency plan should development of the site be desired by the Army in the future:

- i.* Notification Requirements: If the land use at Site 180 (PICA-093) were to change, any and all notifications, as described in Section 4.4.3.5 of the RAWP, will be made to the regulators. Currently the land use has not changed; therefore, there was no need to notify the United States Environmental Protection Agency (USEPA) or New Jersey Department of Environmental Protection (NJDEP) of any land use changes in the past year.

Following the notifications, the Army and regulators will develop and implement engineering controls as described in Section 4.4.1 of the RAWP. Final engineering controls will be developed. These engineering controls may include maintenance of the existing vegetative cover; however the final engineering controls will be determined once the future land use is known.

- ii.* CERCLA Five –Year Reviews: The Army will conduct Five Year Reviews as required by CERCLA and the NCP to determine if the LUC have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and NJDEP.

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Appendix N

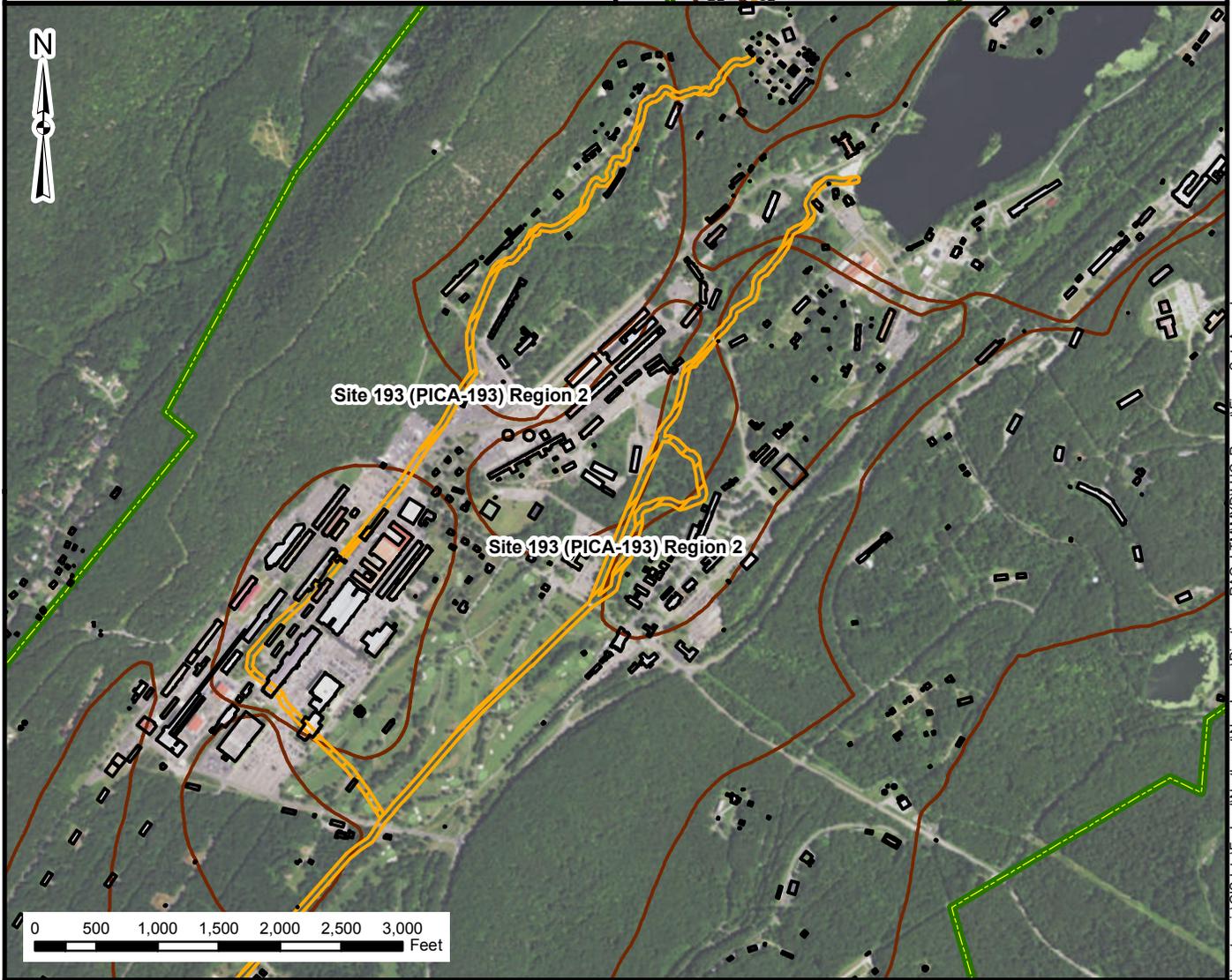
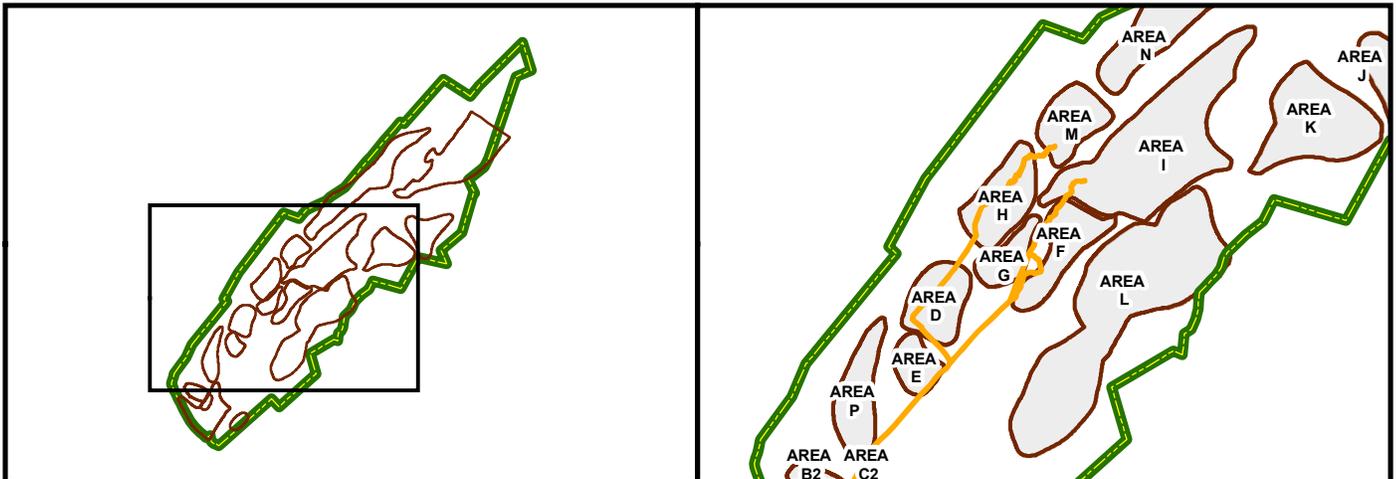
Site 193 (PICA-193), Site Figures

Site 193 (PICA-193), Site Photographs

Site 193 (PICA-193), Inspection Forms

**Site 193 (PICA-193), Land Use Control Objectives and
Annual Certification**

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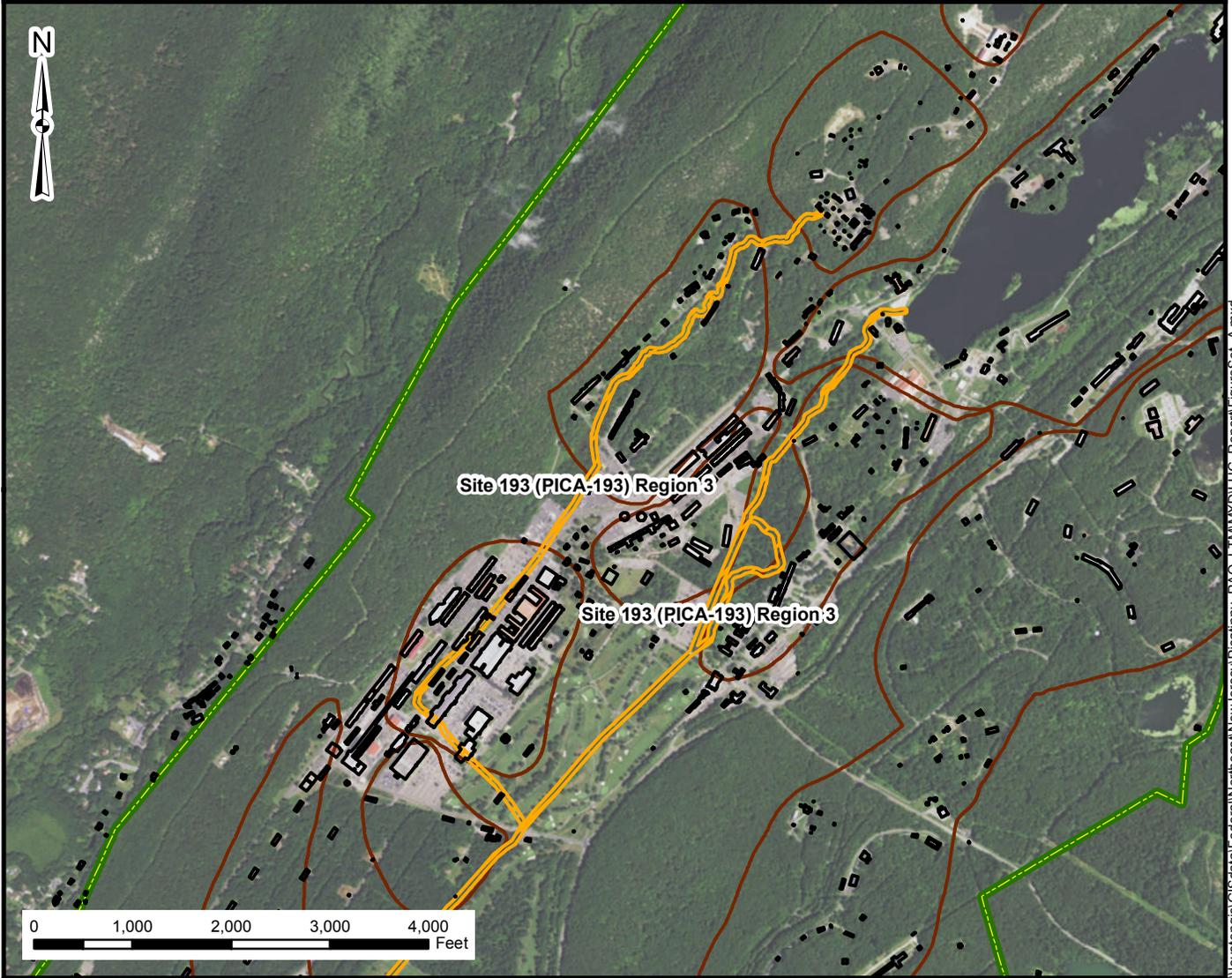
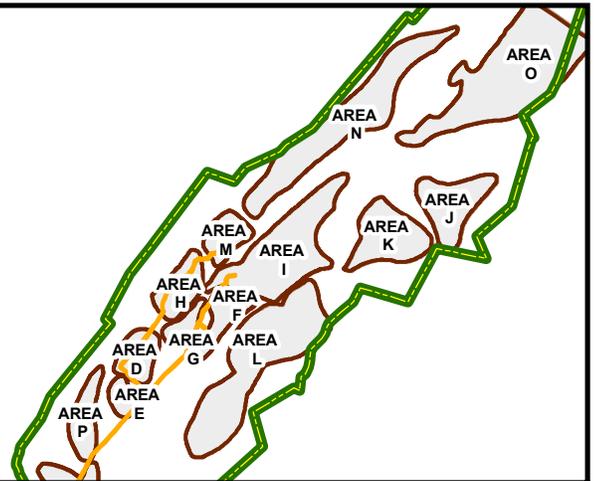
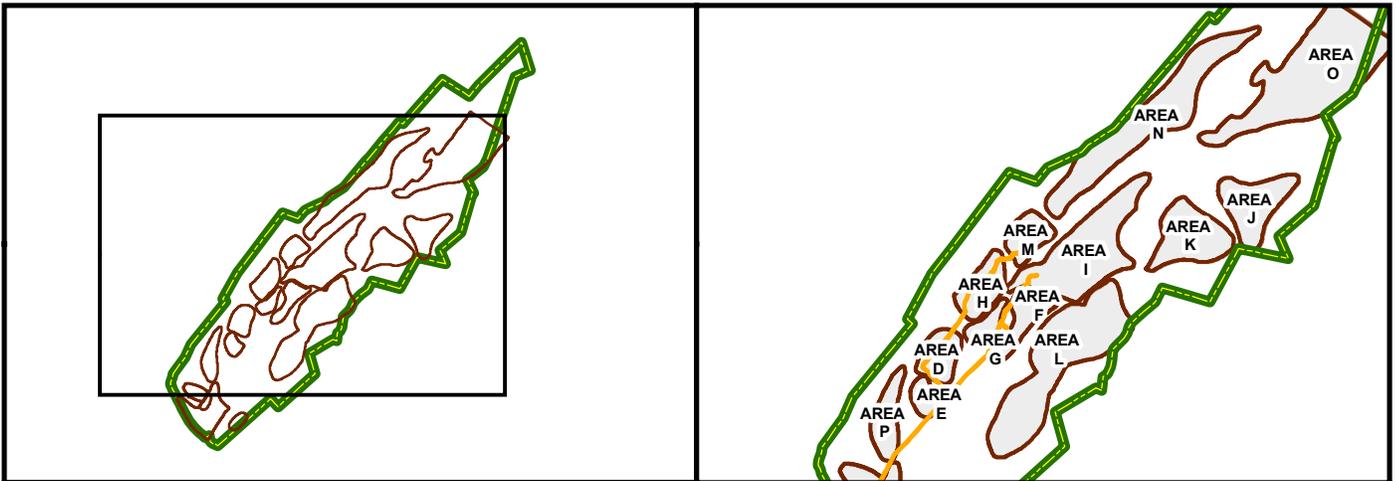
- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure N-1
Site 193 (PICA-193) Region 2

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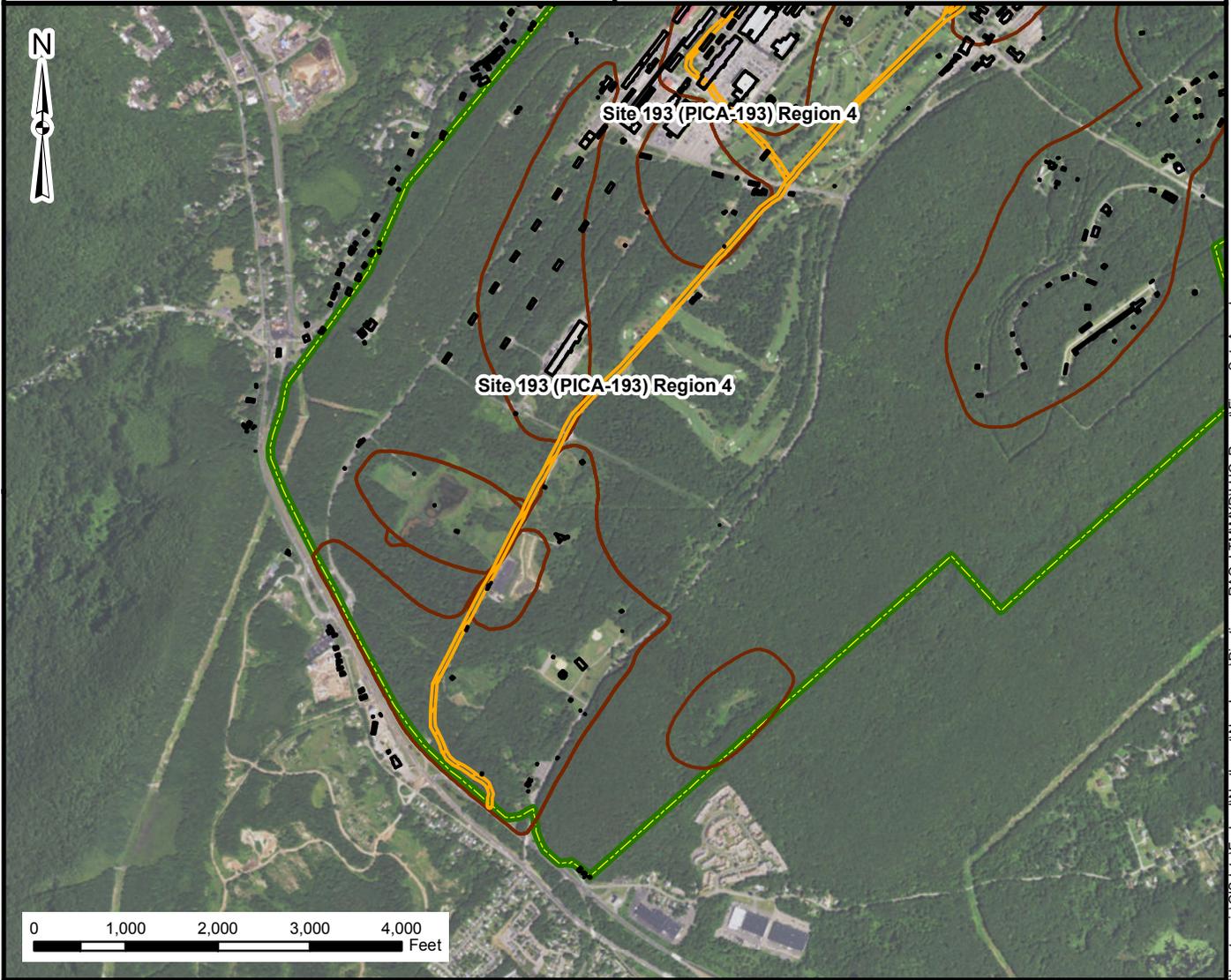
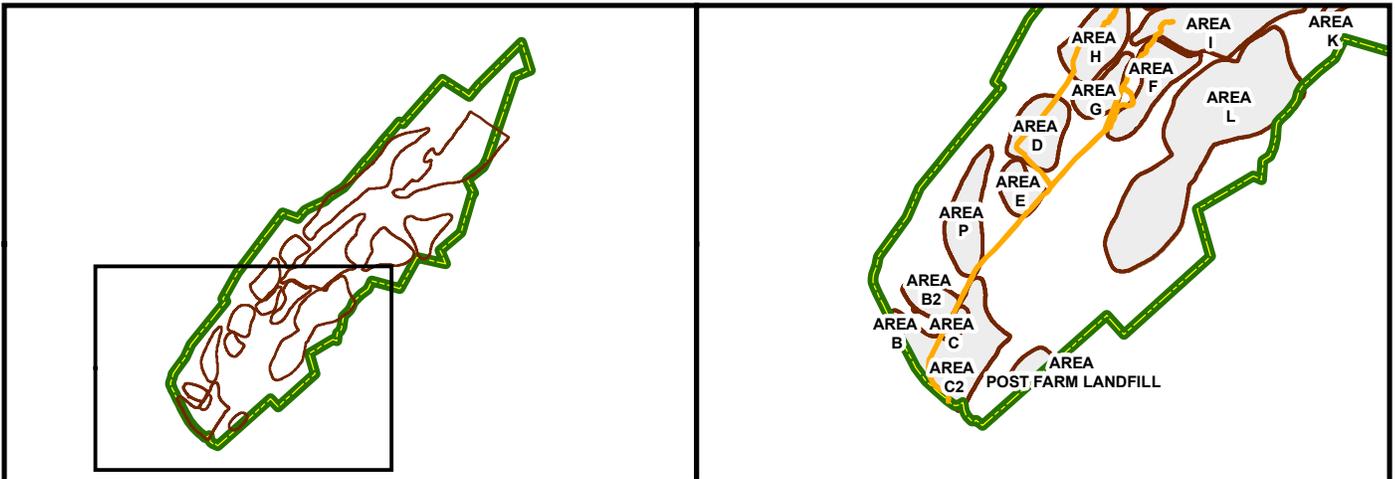
-  Installation Boundary
-  LUC Area of Applicability
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure N-2
Site 193 (PICA-193) Region 3

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Legend

-  Installation Boundary
-  LUC Area of Applicability
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure N-3
Site 193 (PICA-193) Region 4

Annual Checklist to Ensure Proper Land Use

Land Use Control Plan for Site 193 (PICA193)

1. Proper Land Use

Date 10/15/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location Shown on Attached Map</u>
New Construction within 25' of GPB or BSB	N		
Industrial Land Use within 25' of GPB	N		
Any sign of fishing activity	N		
Condition of No "Fishing Signs"		Good	
Signs of Unusual Erosion	N		
Other			

3. Has any disturbance of soil taken place over the past year? X Yes _____ No

If Yes, describe below:

Soil Clearance #	Date	Approval	Description
Service order: B12017/Project # 4582	11/25/2014		Install a guardrail at Bear Swamp Brook by B25-N

4. Are there signs of trespassing ____ Yes No

5. Signs appropriately posted Yes ____ No

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/15/2015

Date

Annual Checklist to Ensure Proper Land Use

Land Use Control Plan for Site 193 (PICA193)

Site Photographs



Photo 1: Green pond brook. Surrounded by dense vegetation.



Photo 2: Green pond brook. Surrounded by dense vegetation

Annual Checklist to Ensure Proper Land Use

Land Use Control Plan for Site 193 (PICA193)

Site Photographs



Photo 3: Bear swamp brook. Posted land use control sign.



Photo 4: Bear swamp brook. Densely vegetated area.

**Annual Land Use Certification for Site 193 (PICA-193) Green Pond Brook and Bear Swamp
Brook
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the remedial design for GPB/BSB (PICA-193). The Remedial Design Plan is in accordance with the GPB/BSB Record of Decision (ROD) signed by the Picatinny commander and Regional Administrator of USEPA on January 4, 2005 and July 18, 2005, respectively.

Certification of LUC objectives outlined in Section 4.0 of the RD Plan:

a. LUC Objective: Prohibit the development and use of property within 25 feet of GPB/BSB for residential:

- i. Picatinny Vision Plan: The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Site 193 (PICA-193) as an area with environmental restrictions. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

The Picatinny Environmental Geographic Information System (GIS) incorporates the as-builts, sampling results including the post-excavation data, and other information. The plan is to incorporate the GIS into the Vision Plan by reference.

- ii. Notification Requirements: Land use has not changed; therefore, there was no need to notify the United States Environmental Protection Agency (USEPA) or New Jersey Department of Environmental Protection (NJDEP) of any land use changes in the past year.

b. LUC Objective: To Ensure the Integrity of the Vegetative Cap

- i. Inspections: Inspection forms were developed and approved by the USEPA. The inspections were performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- ii. Access Restriction through Picatinny Base Access Regulations: Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Site 193 (PICA-193).
- iii. Posted Signs: The condition of the signs is as noted in the inspection reports. Signs are posted around the site to prevent unauthorized entry and inappropriate activities.
- iv. Site Clearance/Soil Management Procedures: Site Clearance/Soil Management Procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
- v. Wetland reclamation was completed in 2005 in compliance with the permit-equivalent.

**Annual Land Use Certification for Site 193 (PICA-193) Green Pond Brook and Bear Swamp
Brook
Picatinny Arsenal, New Jersey**

c. LUC Objective: Protection of Site Workers

- i. *Site Specific Health and Safety Plan:* The Site Health and Safety Plan for the Remedial Action was approved by the Baltimore Corps of Engineers and Picatinny and implemented by the contractor.
- ii. PTA Safety Program: There were no requirements.
- iii. Posted Signs: Several signs are posted indicating that fishing and swimming is prohibited within Green Pond Brook and Bear Swamp Brook. The Installation Restoration Office refers inquiries to the Security and Safety Office of Picatinny for appropriate information regarding safety issues, security, and damage.

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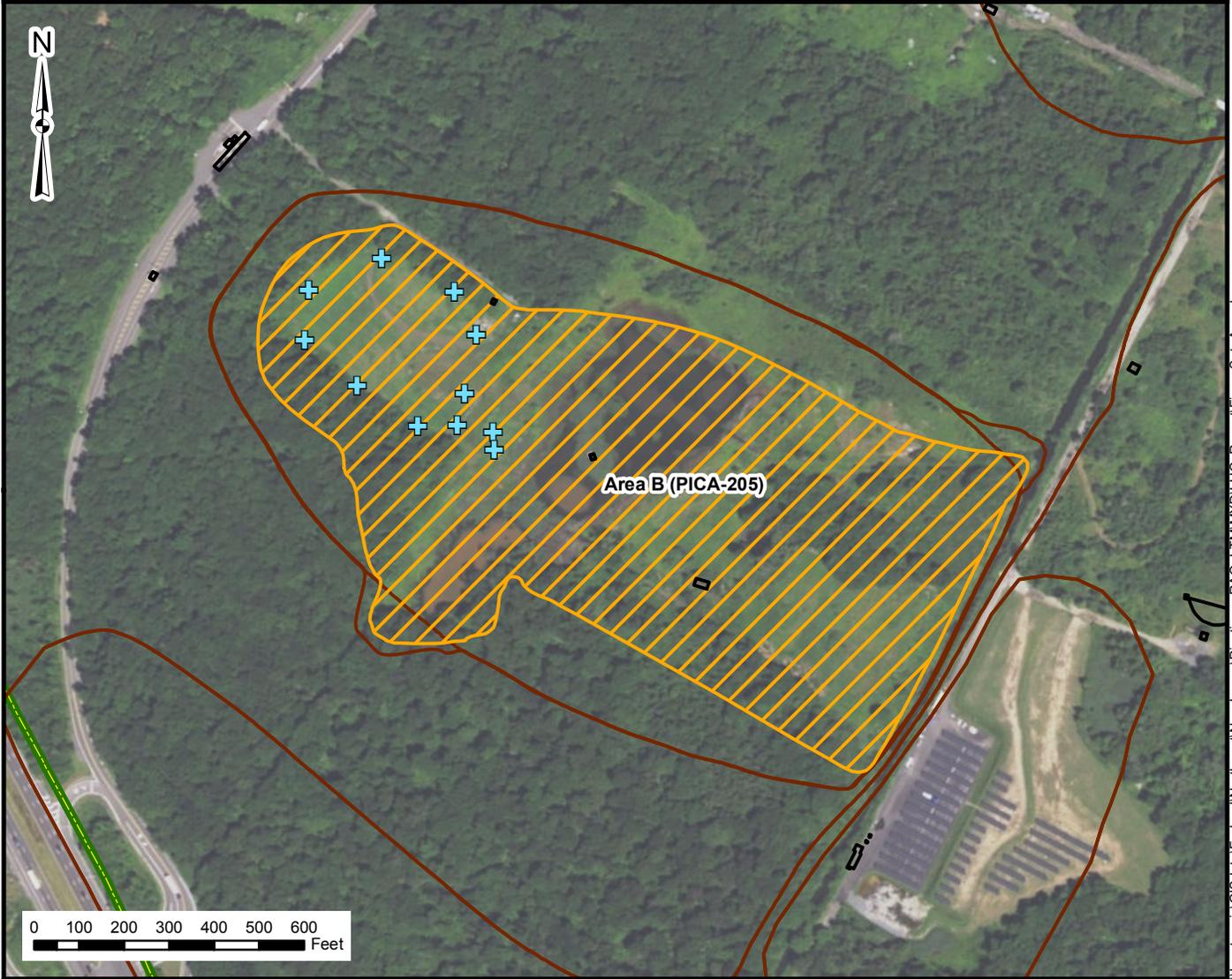
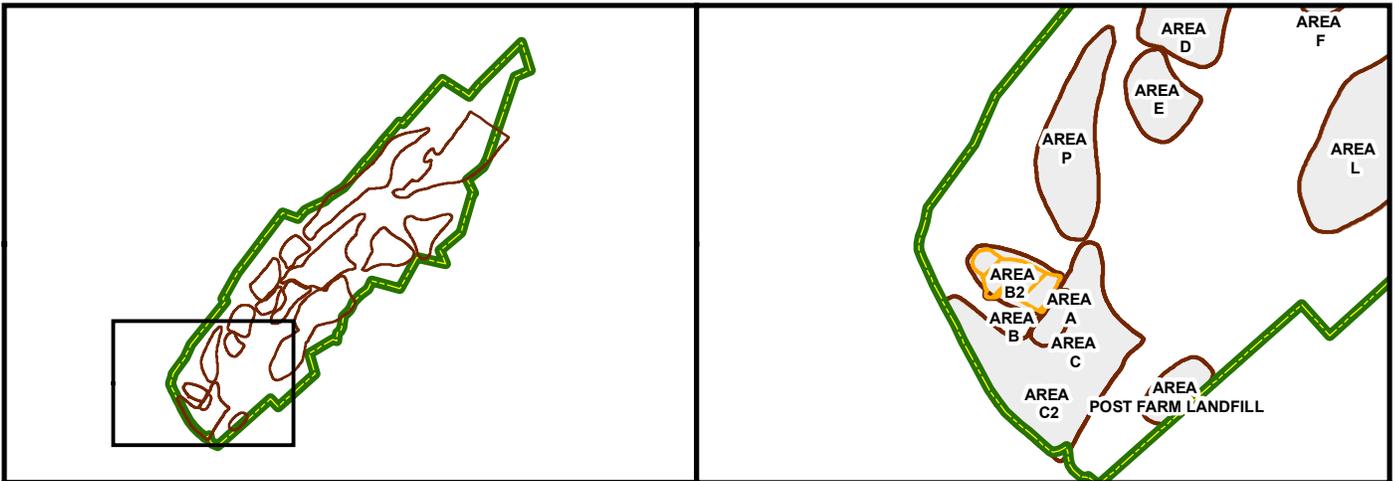
Appendix O

Area B (PICA-205) Groundwater, Site Figure

Area B (PICA-205) Groundwater, Site Photographs

**Area B (PICA-205) Groundwater, Land Use Control
Objectives and Annual Certification**

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Legend

-  Installation Boundary
-  Area Boundary
-  Building
-  LUC Area of Applicability
-  LUC Sign Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure O-1
Area B (PICA-205)

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: ^o Area B Site, PICA-205

1. Land Use Evaluation

Date 10/12/2015

1. Inspector walked over entire site

 X Yes No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stess	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	N		
Signs of Erosion	N		
Other	N		

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Sign stating digging not permitted (12)	Yes 12	

4. Has any disturbance of soil taken place ove the past year? Yes X No

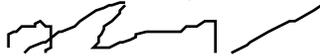
If Yes, describe below:

<u>Soil</u> <u>Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/12/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o Area B Site, PICA-205

Site Photographs



Photo 1: Surface cover and monitoring wells



Photo 2: Access road, land use control signs and monitoring wells. Shed not present as it was in previous years photo

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: Area B Site, PICA-205

Site Photographs



Photo 3: Surface cover



Photo 4: Surface cover.

**Annual Land Use Certification for Area B (PICA-205) Groundwater
Picatinny Arsenal, New Jersey**

This certification is being made in accordance with the Remedial Design (RD) for Area B Groundwater (PICA-205). The RD is in accordance with the Area B Record of Decision (ROD) and was signed the Picatinny commander and the EPA Region 2 Director of the Emergency and Remedial Response Division on February 25, 2009 and April 1, 2009, respectively.

1. **Certification of LUC objectives outlined in Land Use Control Plan for Area B (Remedial Design):**

A. LUC Objective: Control excavation without safeguards in all areas below the water table in the plume footprint through the soil management procedure

- i. Inspections:* Inspection forms were developed and approved by the USEPA. The inspection was performed and the forms completed and signed. A copy of the site inspection form is included as an attachment to this certification.
- ii. Access Restrictions through Picatinny Base Access Regulations:* Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Area B.
- iii. Site Clearance/Soil Management Procedures:* Site Clearance/Soil Management Procedures were maintained as appropriate. No requests to take soil off the sites were made during the past year through the Soil Clearance Policy now implemented through the Picatinny Environmental Management System.
- iv. MEC procedures:* Procedures for PTA areas were and continue to be coordinated through the PTA Safety Office and EAD, with additional support from the USACE. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

B. LUC Objective: Update Picatinny's existing Classification Exception Area (CEA) to specifically address the Area B groundwater plume

- i. Update CEA:* The CEA has been reviewed and updated as necessary with current site-specific conditions during the next biennial certification.
- ii. Certification and Protectiveness Evaluation:* Certification of the CEA will be completed with the next biennial certification. The certification includes inspection and evaluation of (1) changes to laws and regulations, (2) future water uses, (3) changes to current water use (well search), (4) the integrity of monitoring wells associated with the CEA, (5) any land use disturbances within the CEA, and (6) analytical sampling results. Any proposed groundwater use within the CEA will require NJDEP review and approval to ensure that modifications would be protective of any impacts from the identified contaminants for the duration of the CEA

C. LUC Objective: Incorporate Area B Groundwater data into the Installation Restoration Program (IRP) GIS system

- i. Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and

**Annual Land Use Certification for Area B (PICA-205) Groundwater
Picatinny Arsenal, New Jersey**

incorporates Area B (PICA-205) Groundwater. The Vision Planner is currently fully cognizant of the restrictions of the LUCs and would incorporate those in any planned actions at the site.

The Picatinny Environmental Geographic Information System (GIS) incorporates the area of applicability of land use controls, sampling results, and other information.

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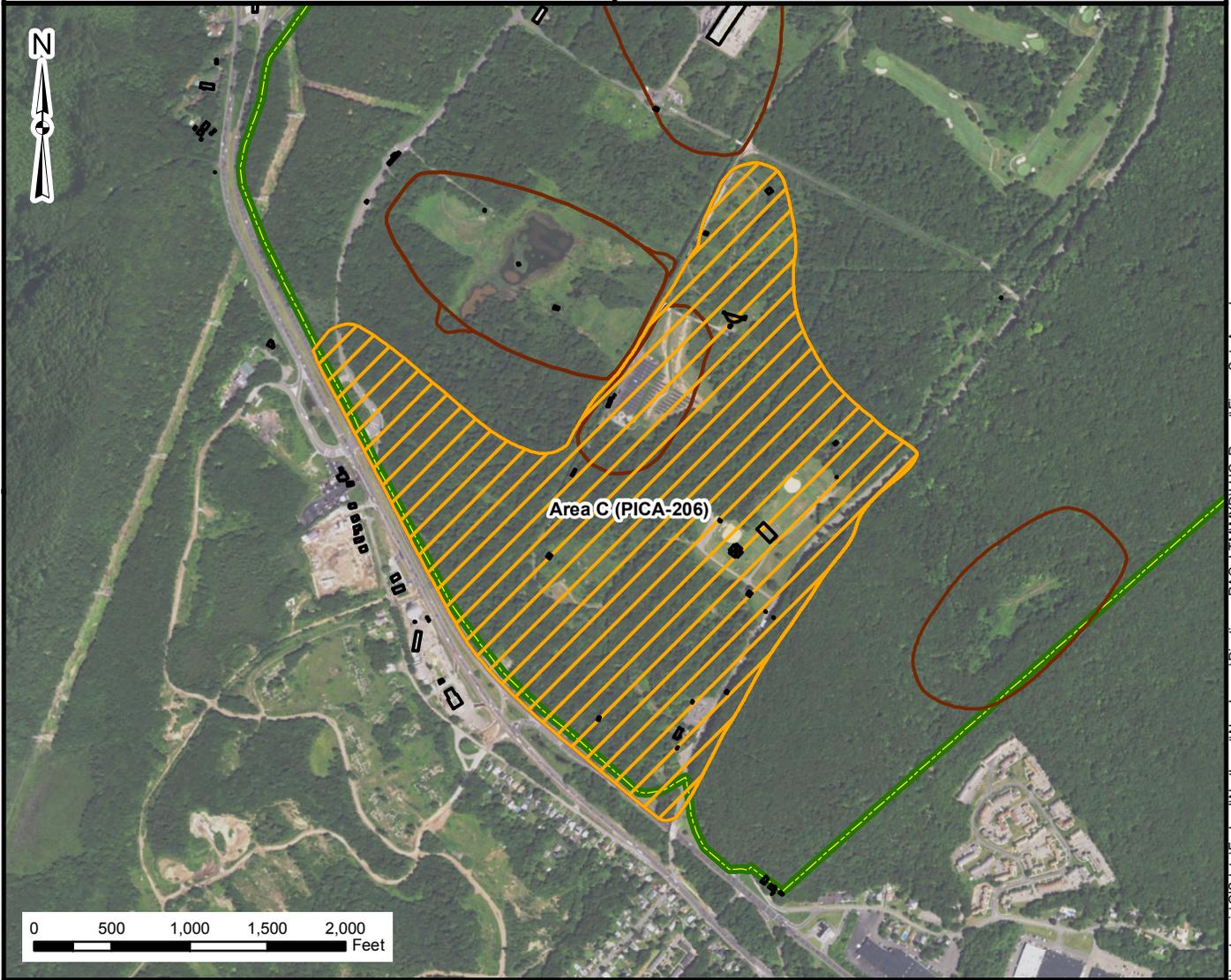
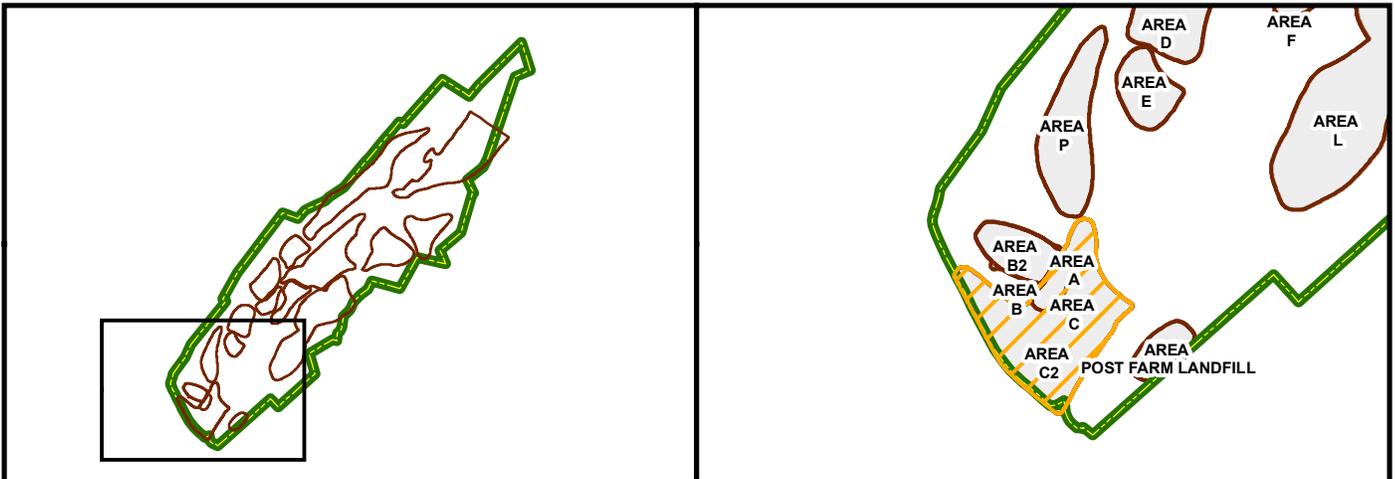
Appendix P

Area C (PICA-206) Groundwater, Site Figure

Area C (PICA-206) Groundwater, Site Photographs

**Area C (PICA-206) Groundwater, Land Use Control Objectives
and Annual Certification**

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Legend

- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure P-1
Area C (PICA-206)

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: 0 Area C (PICA 206)

Date 10/14/2015

1. Land Use Evaluation

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason: _____

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Vegetative Stress	N		
Unwanted Vegetation	N		
Penetration due to animal pests	N		
Construction Activities	Y	solar panels	
Signs of Erosion	N		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
LUC sign		

4. Has any disturbance of soil taken place over the past year? _____ Yes X No

If Yes, describe below:

<u>Soil Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/14/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: 0 Area C (PICA 206)

Site Photographs



Photo 1: MW180-1 painted a different color and surrounded by new solar panels

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: 0 Area C (PICA 206)

Site Photographs



Photo 2: Land use control sign



Photo 3: Cluster of monitoring wells

**Annual Certification of Land Use
Controls for Area C (PICA-206) Groundwater
Picatinny, New Jersey**

This certification is being made in accordance with the Remedial Design (RD) for Area C Groundwater (PICA-206). The RD is in accordance with the Area C Record of Decision (ROD) signed by the Picatinny Arsenal Commander and EPA Region 2 Director of the Emergency and Remedial Response Division on September 17, 2010 and September 23, 2010, respectively.

1. Certification of LUC objectives outlined in *Long Term Monitoring Plan and Land Use Control Remedial Design for Area C Groundwater*:

A. LUC Objective: Prevent access or use of the groundwater until cleanup levels are met

i. Inspections: Annual inspections of land use will be performed to document compliance with the LUC objectives. Area C will be inspected for any signs of land use inconsistent with the LUC objectives. Any land use that could result in groundwater exposure will be prohibited.

ii. Access Restrictions through Picatinny Base Access Regulations: Picatinny Security provides 24-hour patrols to enforce any suspected security violations at Area C.

iii. Certification and Protectiveness Evaluation: Certification of the CEA will be completed with the next biennial certification. The certification includes inspection and evaluation of (1) changes to laws and regulations, (2) future water uses, (3) changes to current water use (well search), (4) the integrity of monitoring wells associated with the CEA, (5) any land use disturbances within the CEA, and (6) analytical sampling results. Any proposed groundwater use within the CEA will require NJDEP review and approval to ensure that modifications would be protective of any impacts from the identified contaminants for the duration of the CEA.

B. LUC Objective: Maintain the integrity of any current or future remedial monitoring system, such as monitoring wells

i. Well Maintenance Program: Groundwater monitoring wells will be inspected prior to each round of sampling for general condition and integrity. Well inspections will be documented on EPA Region 2 Superfund Well Inspection Checklists and the LUC certification form. All significant deficiencies in the condition of a well will be corrected prior to the next sampling event.

ii. Picatinny Vision Plan: The Picatinny Real Property Vision Plan was approved in November 2015.

It references and incorporates Area C Groundwater (PICA-206). The Vision Planner is fully cognizant of the restrictions of the LUCIP and would incorporate those in any planned actions at the site.

iii. Facility-wide Environmental Geographic Information System (GIS): Picatinny's GIS incorporates the area of applicability of land use controls, sampling results, and other information and is maintained by the Environmental Affairs Directorate's contractor.

C. LUC Objective: Maintain the existing CEA

i. Update CEA: The CEA will be reviewed and updated as necessary with current site-specific conditions. Evaluations of the protectiveness of the CEA will be made biennially to NJDEP.

D. Prohibit excavation without safeguards in all areas below the water table where groundwater contaminants exceed SCLs

i. Site Clearance/Soil Management Procedures: No excavation of soil without approval of the Picatinny Installation Restoration Project Manager; no excavation of soil without the proper safety equipment per a safety permit from the Picatinny Safety Office; No transportation of excavated soils off of Picatinny without written approval from the USEPA Project Manager. This does not include soil samples taken from the site for investigations.

ii. MEC procedures: Procedures for PTA areas are coordinated through the PTA Safety Office and EAD, with additional support from the USACE. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.

iii. PTA Safety Program: The Safety Program establishes the Hazard Communication Program and Hazardous Materials Information System, maintains a central Material Safety Data Sheets file in the Installation Safety Office, and provides a safety review of all construction projects. The Safety Program also establishes the appropriate medical surveillance program for personnel working with hazardous materials or otherwise performing hazardous operations. The Installation Safety Office is the point of contact for the Safety Program, and has the authority to stop work where unsafe work conditions are present.

Appendix Q

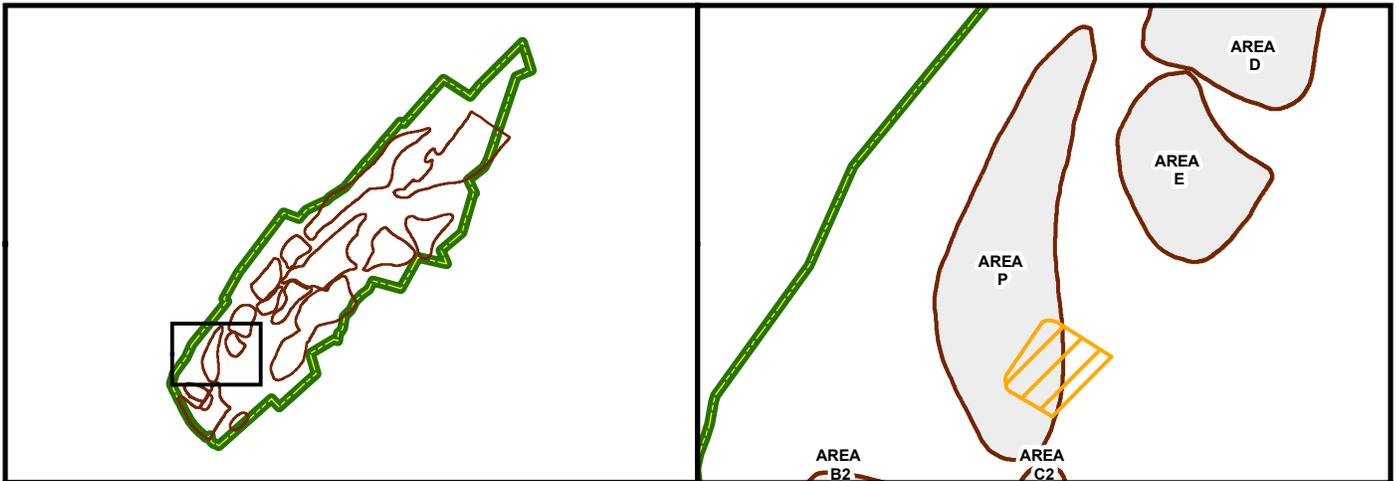
**Site 78 (PICA-013) Groundwater and Surface Water,
Site Figure**

**Site 78 (PICA-013) Groundwater and Surface Water,
Site Photographs**

**Site 78 (PICA-013) Groundwater and Surface Water,
Inspection Forms**

**Site 78 (PICA-013) Groundwater and Surface Water, Land
Use Control Objectives and Annual Certification**

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Legend

- Installation Boundary
- LUC Area of Applicability
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure Q-1
Site 78 (PICA-013)

Annual Inspection Checklist for Land Use Evaluation

Site: o Site 78, PICA-013

1. Land Use Evaluation

Date 10/12/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Construction Activities	N		
Other	N		

3. Has any disturbance of soil taken place over the past year? _____ Yes X No

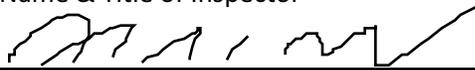
If Yes, describe below:

Soil Clearance #	Date	Approval	Description

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/12/2015

Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: o Site 78, PICA-013

Site Photographs



Photo 1: Surface conditions oriented toward building 91; no intrusive activities or change of land use noticed.



Photo 2: Surface conditions; no intrusive activities or change of land use noticed

**Annual Certification of Land Use
Controls for Site 078 (PICA-013)
Picatinny, New Jersey
Date: _____**

This certification is being made in accordance with the Remedial Design (RD) for Site 78 (PICA-013). The RD is in accordance with the Record of Decision (ROD) for Groundwater and Surface Water at Site 78 (PICA-013) signed by the Picatinny (PTA) Commander and U.S. Environmental Protection Agency (USEPA) Region 2 Director of the Emergency and Remedial Response Division on 23 March 2011 and 5 July 2011, respectively.

1. **Certification of Point of Contact:** Mr. Ted Gabel is the designated point-of-contact for monitoring, maintaining, and enforcing the site-specific Land Use Controls (LUCs) as specified in the Land Use Control Implementation Plan (LUCIP) for Area P (Remedial Design, Section 4.0).
2. **Certification of Commitment to Funding:** Currently EA Engineering, Science, and Technology, Inc., PBC (EA) has been awarded the Performance Based Contract CLINs for continued monitoring and maintenance until through 2016 with options through 2020. For future LUC costs, the AEDB-R database's Cost-to-Complete constrained budget includes adequate funding to comply with the LUCIP.
3. **Certification of LUC objectives outlined in the Land Use Control Implementation Plan for Site 78 (PICA-013) (Remedial Design, Section 4.0):**
 - A. **Site 78 (PICA-013) LUC Objective: Prevent access or use of the groundwater and surface water until cleanup levels are met.**
 - i. *Inspections:* Annual Inspection forms were developed and approved by the USEPA. These forms have been included with the Site 78 (PICA-013) LUCIP (Remedial Design, Appendix B).
 - ii. *Site Clearance/Soil Management Procedures:* No excavation of soil without approval of the PTA Installation Restoration Project Manager; no excavation of soil without the proper safety equipment and a health and safety plan approved by the Picatinny Safety Office; No transportation of excavated soils off of Site 78 without written approval from the USEPA Project Manager. This does not include soil samples taken from the site for investigations.
 - iii. *Unexploded Ordnance Procedures:* Procedures for PTA areas are coordinated through the PTA Safety Office and EAO, with additional support from the U.S. Army Corps of Engineers Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.
 - iv. *PTA Safety Program:* The Safety Program establishes the Hazard Communication Program and Hazardous Materials Information System, maintains a central Material Safety Data Sheets file in the Installation Safety Office, and provides a safety review of all construction projects. The Safety Program also establishes the appropriate medical surveillance program for personnel working with hazardous materials or otherwise performing hazardous operations. The Installation Safety Office is the point of contact for the Safety Program, and has the authority to stop work where unsafe work conditions are present.
 - v. *Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Five-Year Reviews:* The Army will conduct Five-Year Reviews as required by CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan of 1963 (NCP) to determine if LUCs have remained protective of human health under the currently and

reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and the New Jersey Department of Environmental Protection (NJDEP).

B. Site 78 (PICA-013) LUC Objective: Prevent the potential intrusion of plume vapors within future buildings.

- i. Inspections:* Annual Inspection forms were developed and approved by the USEPA. These forms have been included with the Site 78 (PICA- 013) LUCIP (Remedial Design, Appendix B).
- ii. Future Construction:* In the event future building construction is planned over or near the groundwater plume at Site 78 (PICA- 013), adequate vapor intrusion mitigation controls shall be included in the design and construction. These may include, but not be limited to, vapor barriers and passive/active ventilation systems.
- iii. Picatinny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Site 78 (PICA- 013). The Master Planner is currently fully cognizant of the restrictions of the LUCIP and would incorporate those in any planned actions at the site.
- iv. PTA Safety Program:* The Safety Program establishes the Hazard Communication Program and Hazardous Materials Information System, maintains a central Material Safety Data Sheets file in the Installation Safety Office, and provides a safety review of all construction projects. The Safety Program also establishes the appropriate medical surveillance program for personnel working with hazardous materials or otherwise performing hazardous operations. The Installation Safety Office is the point of contact for the Safety Program, and has the authority to stop work where unsafe work conditions are present.
- v. CERCLA Five-Year Reviews:* The Army will conduct Five-Year Reviews as required by CERCLA and the NCP to determine if LUCs have remained protective of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and NJDEP.

C. Site 78 (PICA-013) LUC Objective: Maintain the integrity of any current or future remedial monitoring system such as monitoring wells.

- i. Inspections:* Annual Inspection forms were developed and approved by the USEPA. These forms have been included with the Site 78 (PICA- 013) LUCIP (Remedial Design, Appendix B).

D. Site 78 (PICA-013) LUC Objective: Maintain the existing Classification Exception Area (CEA).

- i. Update CEA:* Upon approval of the RD, the CEA will be reviewed and updated as necessary with current site-specific conditions.
- ii. Certification and Protectiveness Evaluation:* Annual certification of the CEA will be conducted using the NJDEP form included with the Site 78 (PICA-013) LUCIP (Remedial Design, Appendix E). The certification will include inspection and evaluation of (1) changes to laws and regulations, (2) future water uses, (3) changes to current water use (well search), (4) the integrity of monitoring wells associated with the CEA, (5) any land use disturbances within the CEA, and (6) analytical sampling results.

E. Site 78 (PICA-013) LUC Objective: Prohibit excavation without safeguards in all areas below the water table where groundwater contaminants exceed SCLs.

- i. Site Clearance/Soil Management Procedures:* No excavation of soil without approval of the PTA Installation Restoration Project Manager; no excavation of soil without the proper safety equipment and a health and safety plan approved by the Picatinny Safety Office; No transportation of excavated soils off of Site 78 without written approval from the USEPA Project Manager. This does not include soil samples taken from the site for investigations.
- ii. Unexploded Ordnance Procedures:* Procedures for PTA areas are coordinated through the PTA Safety Office and EAO, with additional support from the U.S. Army Corps of Engineers Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.
- iii. PTA Safety Program:* The Safety Program establishes the Hazard Communication Program and Hazardous Materials Information System, maintains a central Material Safety Data Sheets file in the Installation Safety Office, and provides a safety review of all construction projects. The Safety Program also establishes the appropriate medical surveillance program for personnel working with hazardous materials or otherwise performing hazardous operations. The Installation Safety Office is the point of contact for the Safety Program, and has the authority to stop work where unsafe work conditions are present.
- iv. CERCLA Five-Year Reviews:* The Army will conduct Five-Year Reviews as required by CERCLA and the NCP to determine if LUCs have remained protective of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and the NJDEP.

"I certify that the site-specific land use controls for Site 78 (PICA-013) have been in effect throughout _____ (insert calendar year here) or for the period starting _____ (Month Year and ending Month Year) and are protective of human health and the environment."

Ted Gabel
Project Manager
For Environmental Restoration

Date

Frank DeSantis
Project Manager
EA Engineering, Science,
and Technology, Inc., PBC

Date

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Appendix R

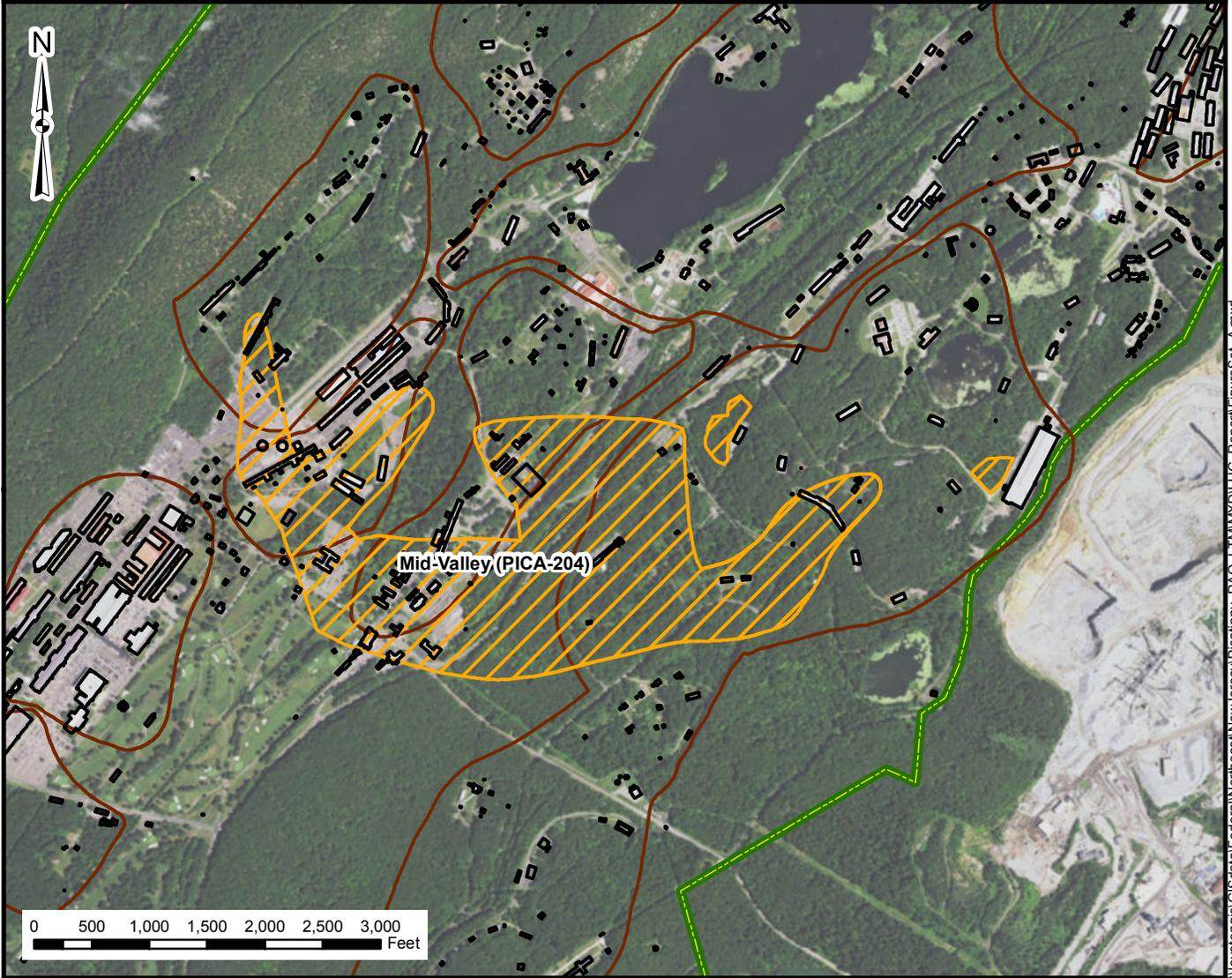
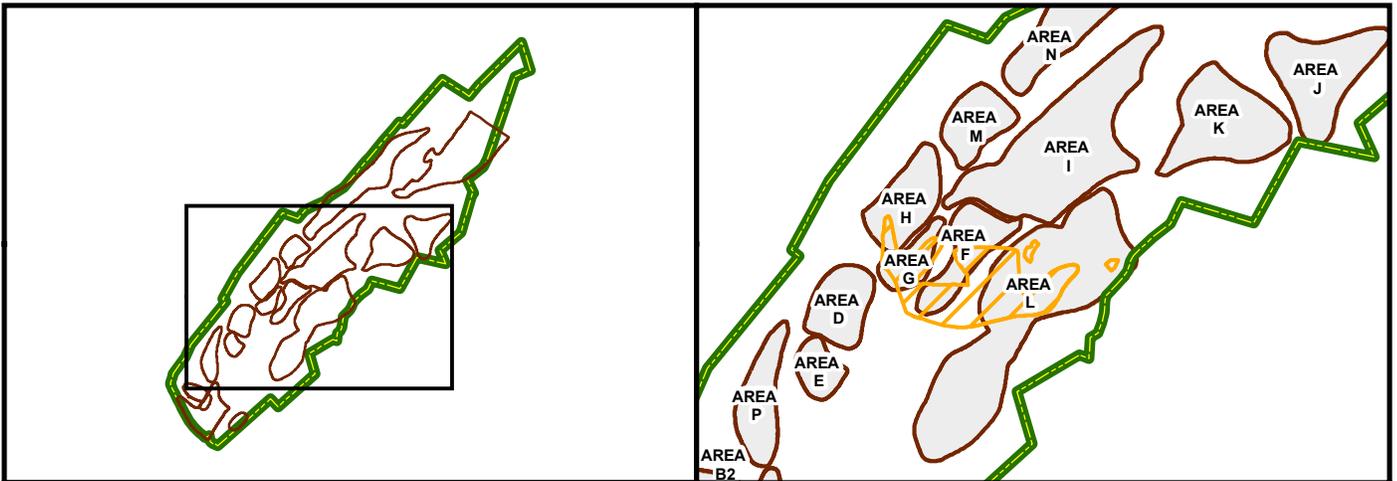
Mid-Valley (PICA-204) Groundwater, Site Figure

Mid-Valley (PICA-204) Groundwater, Site Photographs

Mid-Valley (PICA-204) Groundwater, Inspection Forms

**Mid-Valley (PICA-204) Groundwater, Land Use Control
Objectives and Annual Certification**

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Legend

-  Installation Boundary
-  LUC Area of Applicability
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure R-1
Mid-Valley (PICA-204)

Annual Inspection Checklist for Land Use Evaluation

Site: o Mid-Valley, PICA-204

1. Land Use Evaluation

Date 10/14/2015

1. Inspector walked over entire site

X Yes _____ No

If no, provide reason:

2. Check for any sign of the following conditions - note whether corrective action

was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location</u> <u>Shown on Attached Map</u>
Intrusive Activities	N		
Construction Activities	N		
Other	N		

3. Has any disturbance of soil taken place over the past year? X Yes _____ No

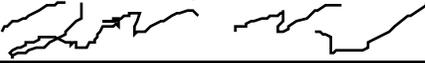
If Yes, describe below:

Soil Clearance #	Date	Approval	Description
Service order: B19855/Project # 4763	5/21/2015		Rebuild the catch basin and replace the existing pipe, Main and Bott Roads
Service Order: B10654/Project # 4561	10/29/2014		Investigate and remove unused steam pits along Farley Ave
	9/30/2014		WERS demolition (building 1377), site restoration for proper drainage

5. Other observations:

John Vrabel

Print Name & Title of Inspector



Signature of Inspector

10/14/2015

Date

Annual Inspection Checklist for Land Use Evaluation

Site: ○ Mid-Valley, PICA-204

Site Photographs



Photo 1: Monitoring wells and typical conditions



Photo 2: Site conditions along the road

Annual Inspection Checklist for Land Use Evaluation

Site: ^o Mid-Valley, PICA-204

Site Photographs



Photo 3: Building 3109

**Annual Certification of Land Use
Controls for Mid-Valley (PICA-204) Groundwater
Picatinny, New Jersey**

This certification is being made in accordance with the Remedial Design (RD) for Mid-Valley (PICA-204) Groundwater. The RD is in accordance with the Record of Decision (ROD) signed by the Picatinny commander and EPA Region 2 Director of the Emergency and Remedial Response Division on 25 September 2012 and 27 September 2012, respectively.

1. **Certification of LUC objectives outlined in Land Use Control Plan (Remedial Design):**

A. LUC Objective: Continued implementation of the Classification Exception Area (CEA) at PTA;

- i. *Update Groundwater Classification Exception Area:* Upon approval of the RD, the existing CEA will be reviewed and updated as necessary with current site-specific conditions for Mid-Valley Groundwater (PICA-204). This CEA update will be performed in accordance with N.J.A.C 7:26C-7.1.
- ii. *Certification and Protectiveness Evaluation:* Certification of the CEA will be completed with the next biennial certification. The certification includes inspection and evaluation of (1) changes to laws and regulations, (2) future water uses, (3) changes to current water use (well search), (4) the integrity of monitoring wells associated with the CEA, (5) any land use disturbances within the CEA, and (6) analytical sampling results. Any proposed groundwater use within the CEA will require NJDEP review and approval to ensure that modifications would be protective of any impacts from the identified contaminants for the duration of the CEA
- iii. *Access Restrictions through Picatinny Base Access Regulations:* Access regulations are in place at Picatinny. Picatinny Arsenal itself is enclosed in perimeter fencing with all access gates secured. Furthermore, several portions of the VOC and RDX plume areas are located within additional enclosures with perimeter fencing and locked gates.
- iv. *Picatinny Safety Program:* The Safety Program establishes the Hazard Communication Program and Hazardous Materials Information System, maintains a central Material Safety Data Sheets file in the Installation Safety Office, and provides a safety review of all construction projects. The Safety Program also establishes the appropriate medical surveillance program for personnel working with hazardous materials or otherwise performing hazardous operations. The Installation Safety Office is the point of contact for the Safety Program, and has the authority to stop work where unsafe work conditions are present.

B. LUC Objective: Incorporate Mid-Valley (PICA-204) data into the Installation Restoration Program (IRP) GIS system

- i. *Picatinny Vision Plan:* The Picatinny Office of the Chief Engineer in the Public Works Directorate is in charge of the Real Property Vision Plan. Picatinny Arsenal's most recent Vision Plan was approved in November 2015
- ii. *Picatinny GIS Database:* Picatinny Arsenal maintains a comprehensive base-wide GIS database. The database includes descriptions of existing land and

environmental restrictions and locations of known contamination on base. This information will be made useable for rapid response and will permit rapid inquiries regarding sites within PTA. Existing wells, chemical contamination, building restrictions, UXO concerns, and many other lines of inquiry, will quickly be available to support the decision making process. PTA Office of the Installation Restoration Program Manager, Public Safety and Environmental Affairs Directorate is responsible for maintaining this database.

C. LUC Objective: Compliance with all NJDEP water allocation regulations.

- i. *Picatiny Vision Plan:* The Picatinny Real Property Vision Plan was approved in November 2015. It references and incorporates Mid-Valley (PICA-204). The Master Planner is currently fully cognizant of the restrictions of the LUCIP and the water allocation regulations. The Vision Planner would incorporate these restrictions and regulations in any planned actions at the site.
- ii. *Update Groundwater Classification Exception Area:* Upon approval of the RD, the existing CEA will be reviewed and updated as necessary with current site-specific conditions for Mid-Valley Groundwater (PICA-204). This CEA update will be performed in accordance with N.J.A.C 7:26C-7.1.

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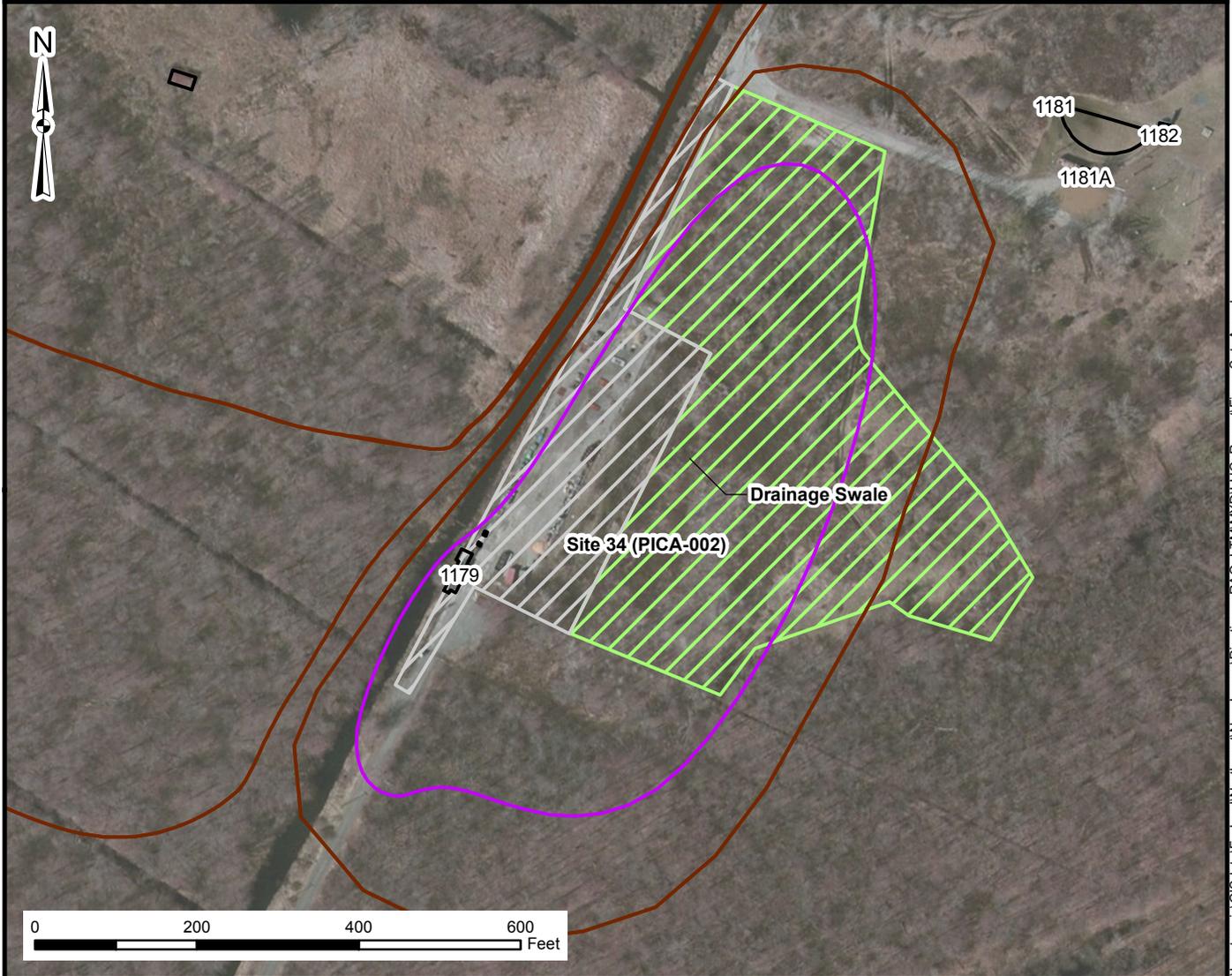
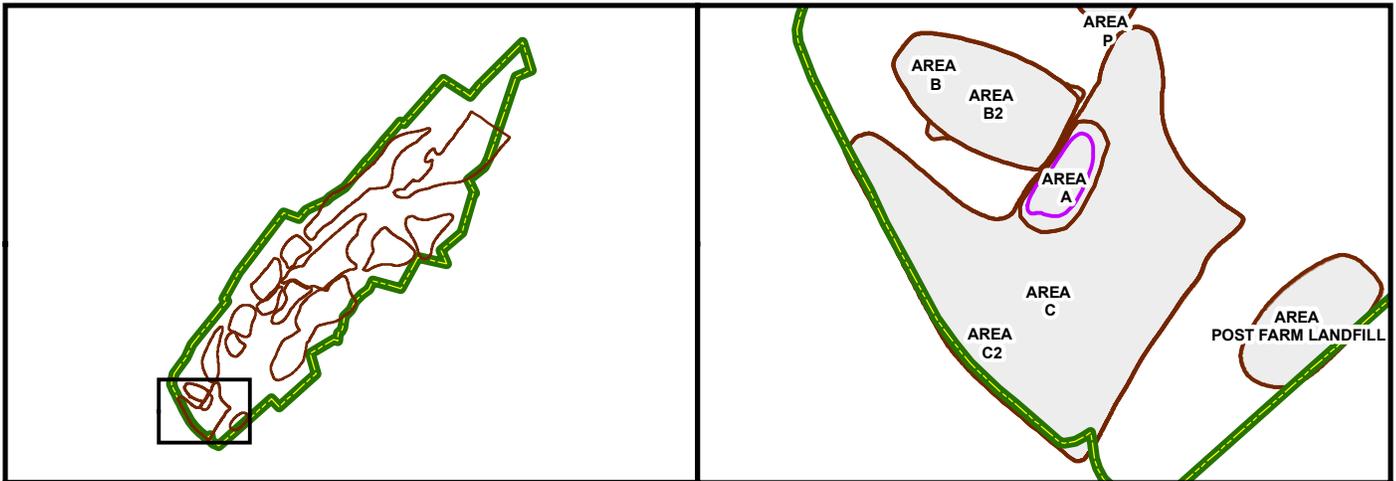
Appendix S

Site 34 (PICA-002), Site Figure

Site 34 (PICA-002), Site Photographs

Site 34 (PICA-002), Inspection Forms

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Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Asphalt Cap
-  Building
-  Vegetative Cover



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure S-1
Site 34 (PICA-002)

**Annual Inspection Checklist to Ensure Integrity of Vegetative Soil Cover and Asphalt Cap
Site 34 (PICA 002)**

1. Cap Integrity

Date: 8/26/15

1. Inspector walked over entire Vegetated Soil Cover and AsphaltCap Area. Yes No

Reason why not?

2. Check for any sign of the following conditions – note whether corrective action was taken.

<u>Condition</u>	<u>Yes/ No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location Shown on Attached Map</u>
Asphalt Cap Deterioration	No		
Signs of Vegetative Stress	No		
Unwanted Vegetation (such as trees)	No		
Penetration due to animal pests	No		
Signs of erosion or exposure of witness layer	No		
Other			

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/#</u>	<u>Corrective Action Taken</u>
Indicating Environmentally Restricted Area (3)	Yes (3)	
Indicating location of Environmental Cover (10)	Yes (10)	

4. Soil Clearances

<u>Soil Clearance #</u>	<u>Date</u>	<u>Approval</u>	<u>Description</u>
N/A			

Brett Dietz, Environmental Scientist
Printed Name & Title of Inspector

Brett Dietz
Signature of Inspector

Date 8/26/15

Stormwater Management System Inspection Log
Site 34 PICA-002 Lower Burning Ground
Picatinny Arsenal, New Jersey

Name/Affiliation of Inspector: Brett Dietz / Sovereign Consulting

Date/Time of Inspection: 8/26/15 1600

Visually inspect the Stormwater Management System for the following items. Note any pertinent observations in the space provided below. Ensure that inspections are conducted when the entire stormwater management system is visible (i.e., time inspections when there is no snow cover and when water levels within the system are low).

1. Are the drainage swales clogged, contain excessive debris, or exhibit excessive woody vegetative growth (e.g., trees, shrubs)?

No

2. Does sediment accumulation within the drainage swale or gravel discharge area inhibit stormwater flow?

No

3. Is there erosion within the drainage swale (side slopes and bottom) and the gravel discharge area characterized by rills, gullies, or scouring of the stormwater management system floor?

No

4. Is the Rip-rap or stone displaced (i.e., are the underlying soil and/or geotextile layers visible)?

No

5. Are there signs that the vegetation on the side slopes of the swales and berms is stressed (e.g., vegetative cover less than 95%)?

NO

6. Are the vegetative portions of the swale cut to the recommended height to of 3-6 inches?

7. Are there any other observations that may impact the performance of the stormwater management system?

Both the swale, outlet, and retention basin were functioning properly.

Brett Dietz
Signature of Inspector

8/26/15
Date

**Bioretention System Performance Inspection Log
PICA 002 Lower Burning Ground**

Name of Inspector: Beth Ditz Date: 8/26/15

Structural Integrity

- Yes Inspector visually assessed all accessible areas associated with the structural system
 No If no, please provide why:

Condition	Yes / No	Location / Corrective Action
Clogging or excessive debris visible	no	
Sediment accumulation visible	no	
Flow channels clear of obstructions	yes	
Outlet structures clear of obstructions	yes	
Noteable erosion	no	
Riprap displaced	no	

Inspect all structural components for visible cracking, subsidence, spalling, erosion, and / or deterioration. Note findings / locations:

basin extremely dry due to heat and lack of precipitation

Vegetated Areas

- Yes Inspector visually assessed all accessible areas associated with bioretention system vegetative areas
 No If no, please provide why:

Condition	Yes / No	Location / Corrective Action
Significant compaction of soil or disruption to planting bed	no	
Erosion or scour	no	
Unwanted growth	no	
Vegetative cover less than 85%	no	
Decline in vegetation health, density, or diversity	no	

Infiltrative Integrity

- Yes Have there been any observed changes in infiltration rate since the last inspection?
 No
 NA If yes, please provide details
- Yes Following a storm event, does the runoff volume drain in approximately 3 hours?
 No
 NA If no, please provide the approximate time it took the runoff volume to drain (must be less than 72 hours):
- Yes If the planting soil bed at the bottom of the system if visible, does it appear to be in tact?
 No
 NA If no, please provide details:

Beth Ditz Environmental Scientist
 Printed Name and Title of Inspector

Beth Ditz
 Signature of Inspector

8/26/15
 Date

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: 0 Site 34 (PICA 002)

Site Photographs



Photo 1: Vegetative cap and asphalt access road intalled Spring-Summer 2014

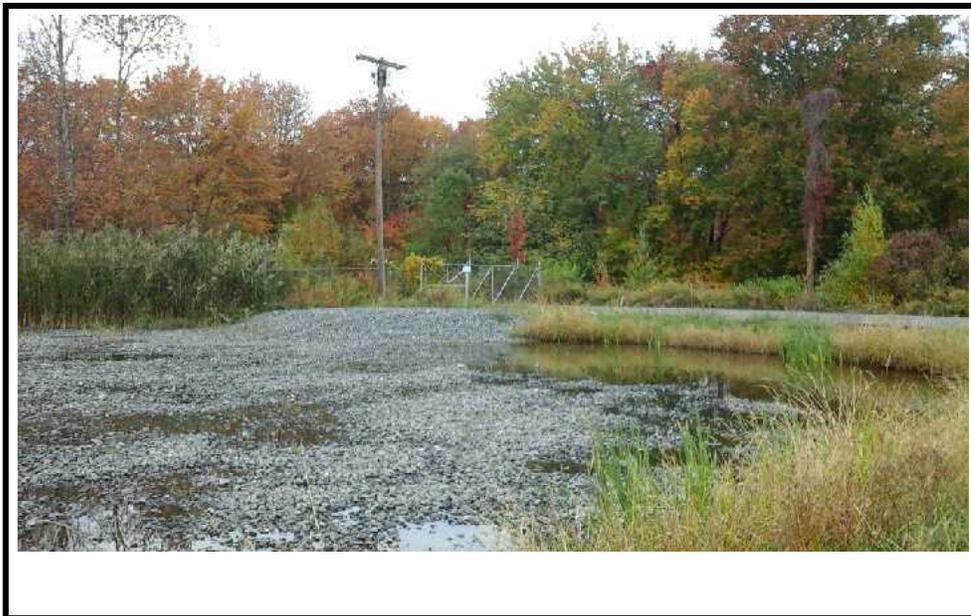


Photo 2: Retention pond

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: 0 Site 34 (PICA 002)

Site Photographs



Photo 3: Vegetative cap and drainage swale



Photo 4: Land use control sign posted

Annual Inspection Checklist to Ensure Integrity of Land Use Controls (LUCs)

Site: 0 Site 34 (PICA 002)

Site Photographs



Photo 5: Land use control sign sign posted



Photo 6: Land use control sign posted

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Appendix T

25 NFA Sites, Site Figures*

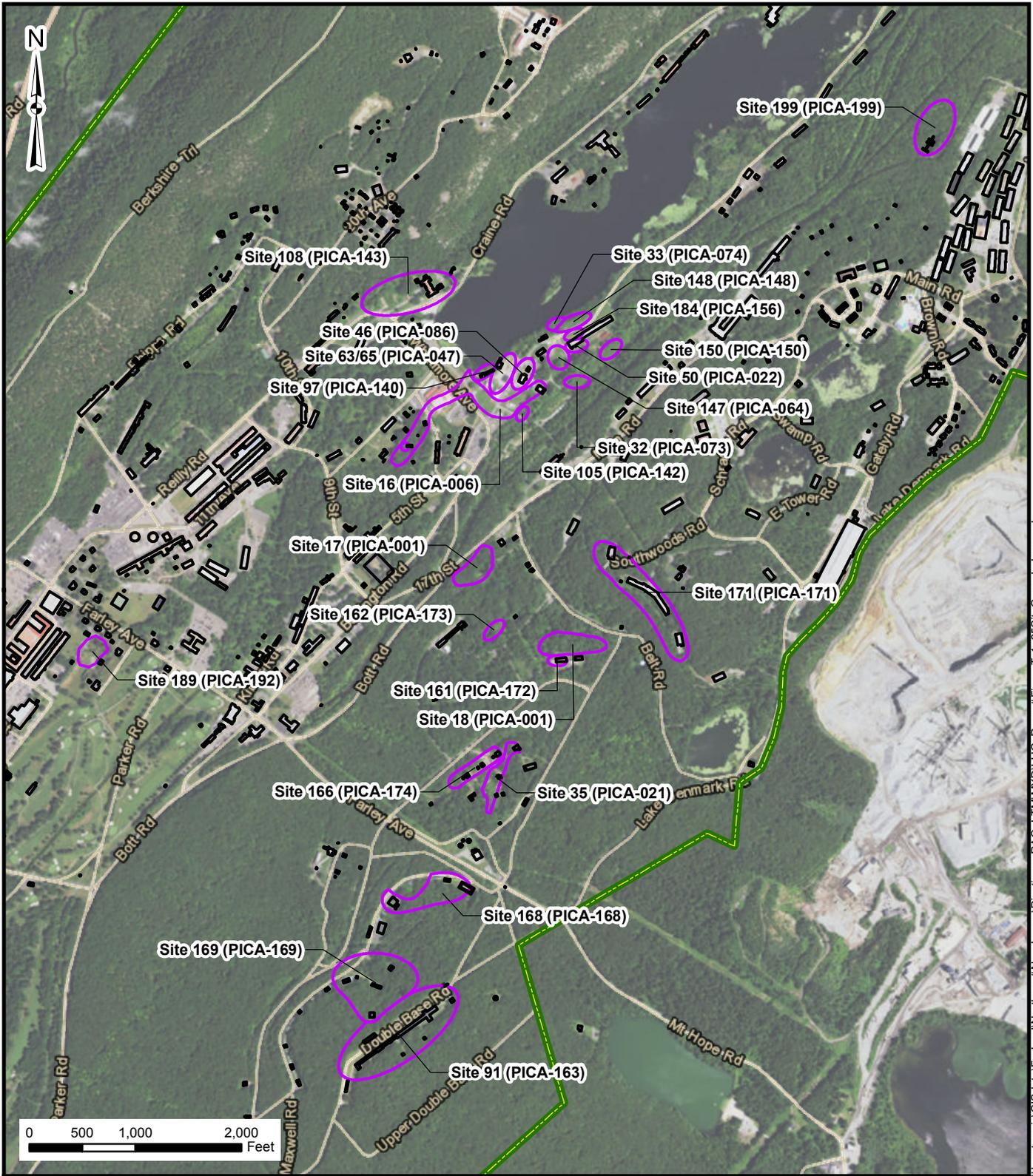
25 NFA Sites, Site Photographs*

25 NFA Sites, Inspection Form*

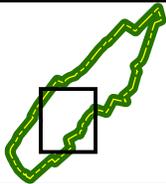
*** NOTE: Includes**

**Site 16 (PICA-006), Site 17 (PICA-001), Site 18 (PICA-001),
Site 32 (PICA-073), Site 33 (PICA-074), Site 35 (PICA-021),
Site 46 (PICA-085), Site 50 (PICA-022), Site 63/65 (PICA-
047), Site 91 (PICA-163), Site 97 (PICA-140), Site 105
(PICA-142), Site 108 (PICA-143), Site 147 (PICA-064),
Site 148 (PICA-148), Site 150 (PICA-150), Site 161 (PICA-
172), Site 162 (PICA-173), Site 166 (PICA-174), Site 168
(PICA-168), Site 169 (PICA-169), Site 171 (PICA-171),
Site 184 (PICA-056), Site 189 (PICA-192), and Site 199
(PICA-199)**

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\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXD\LUC_Report\Figure T-1_25SiteGroupIndex.mxd



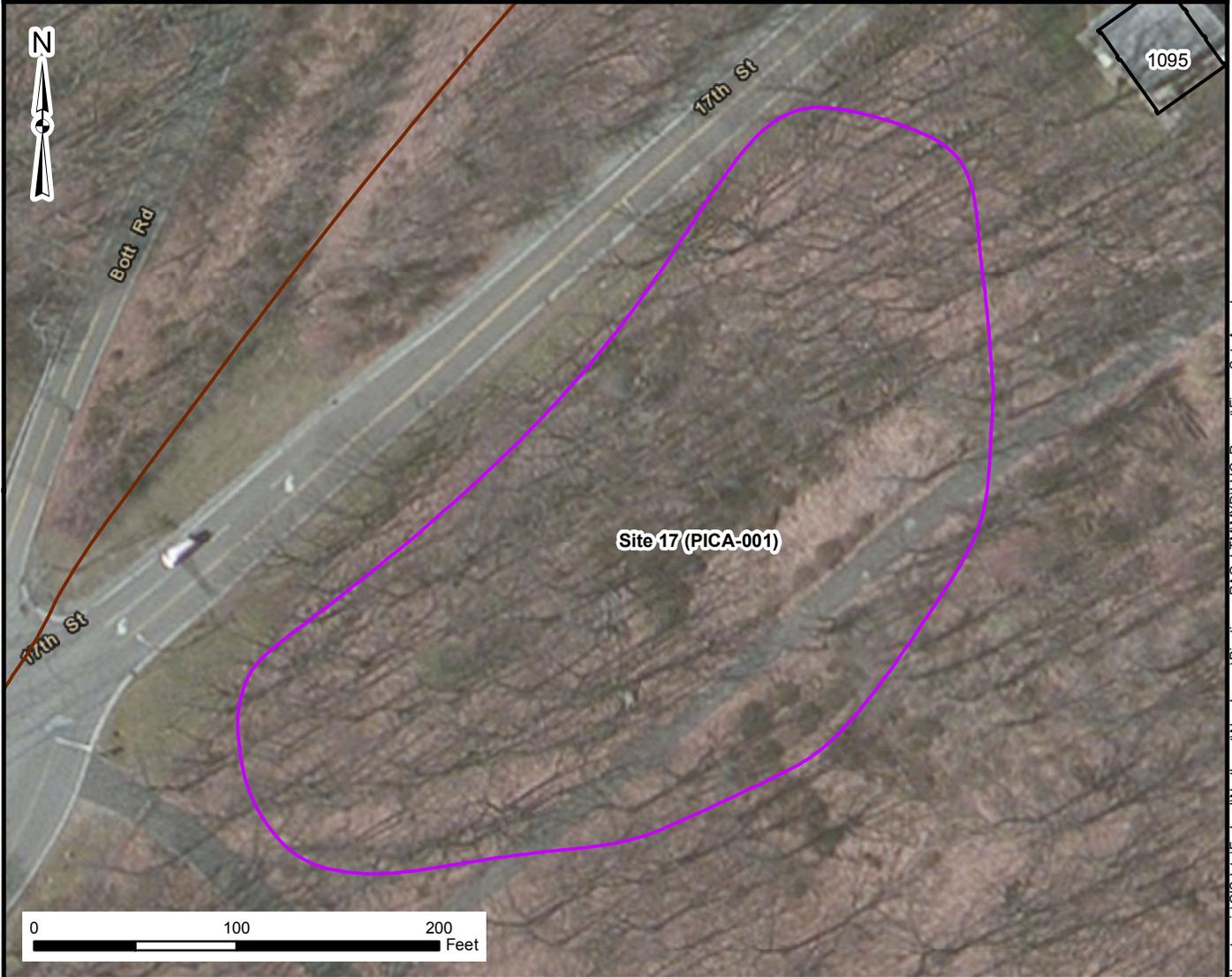
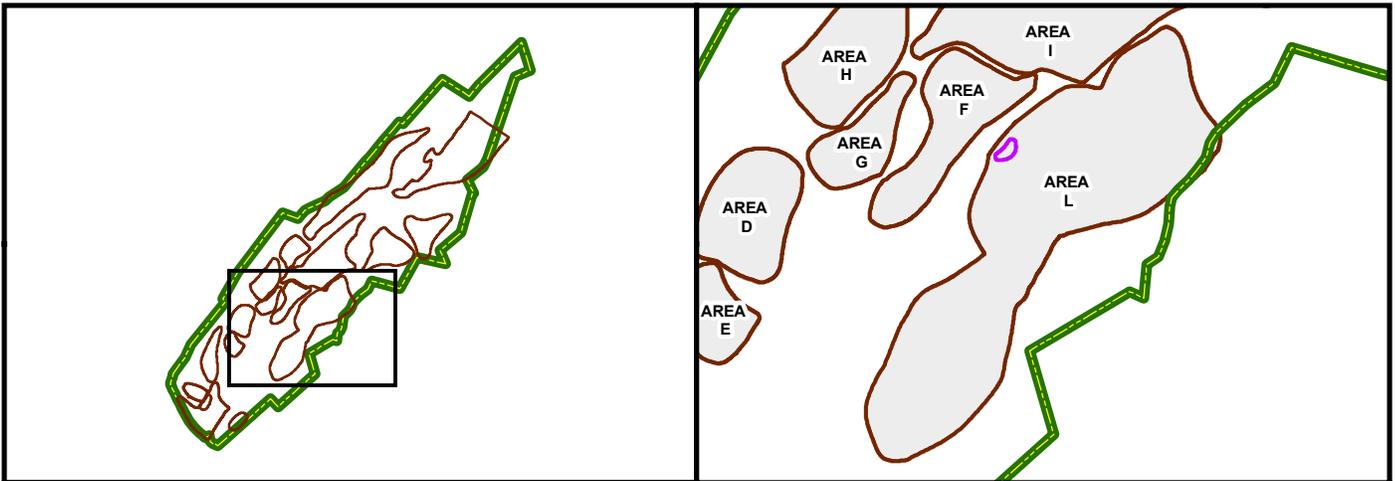
Legend

- Installation Boundary
- Approximate Site Location
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-1
25 Site Group Index Map



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\MMXD\LUC_Report\FigureSet_A.mxd

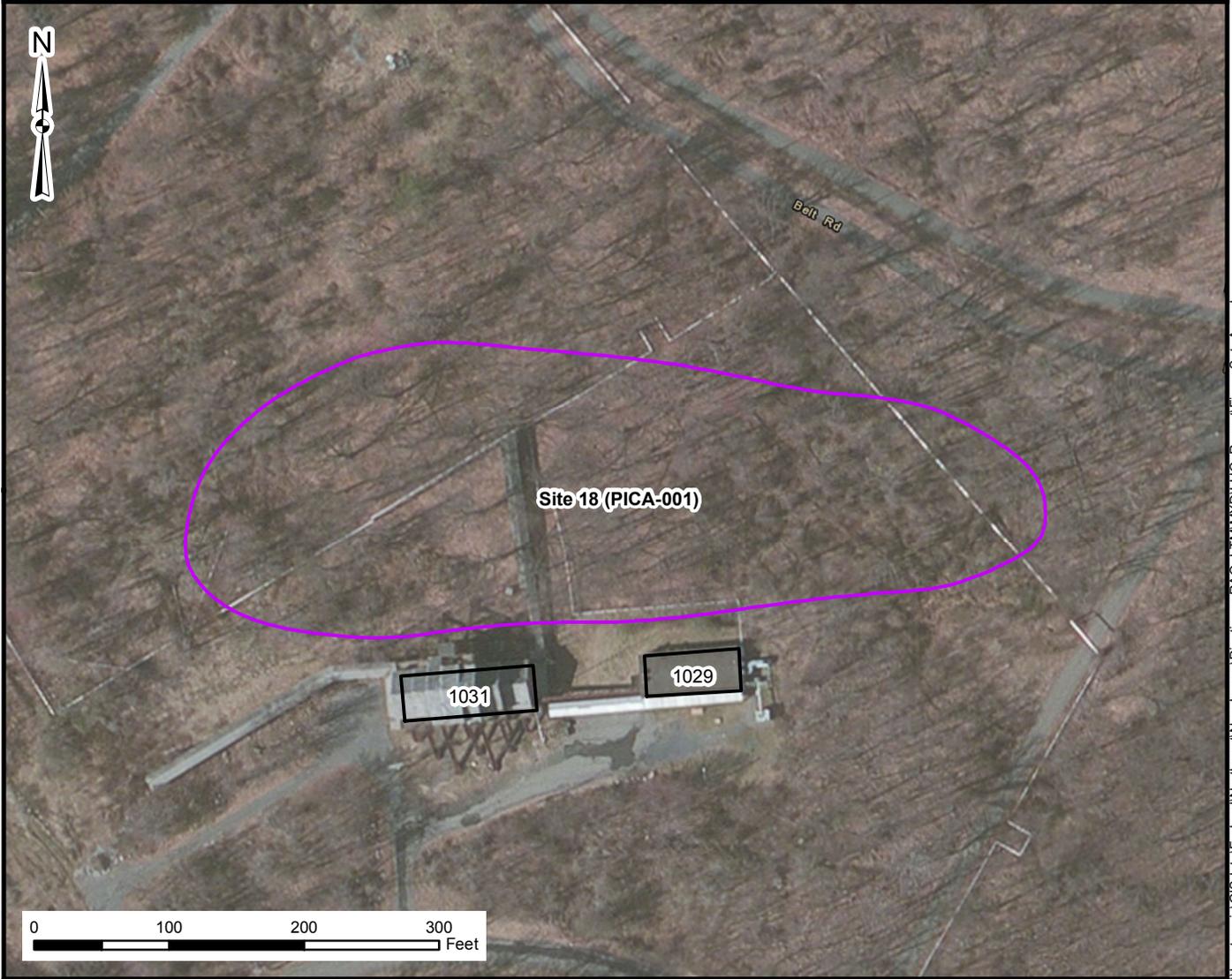
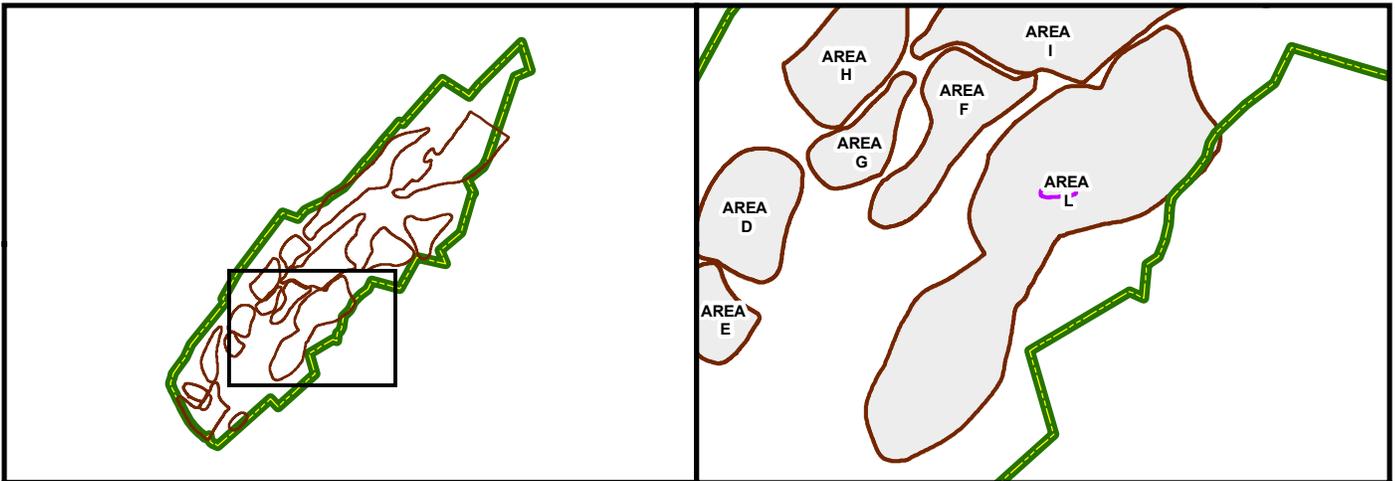
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-2
Site 17 (PICA-001)



Legend

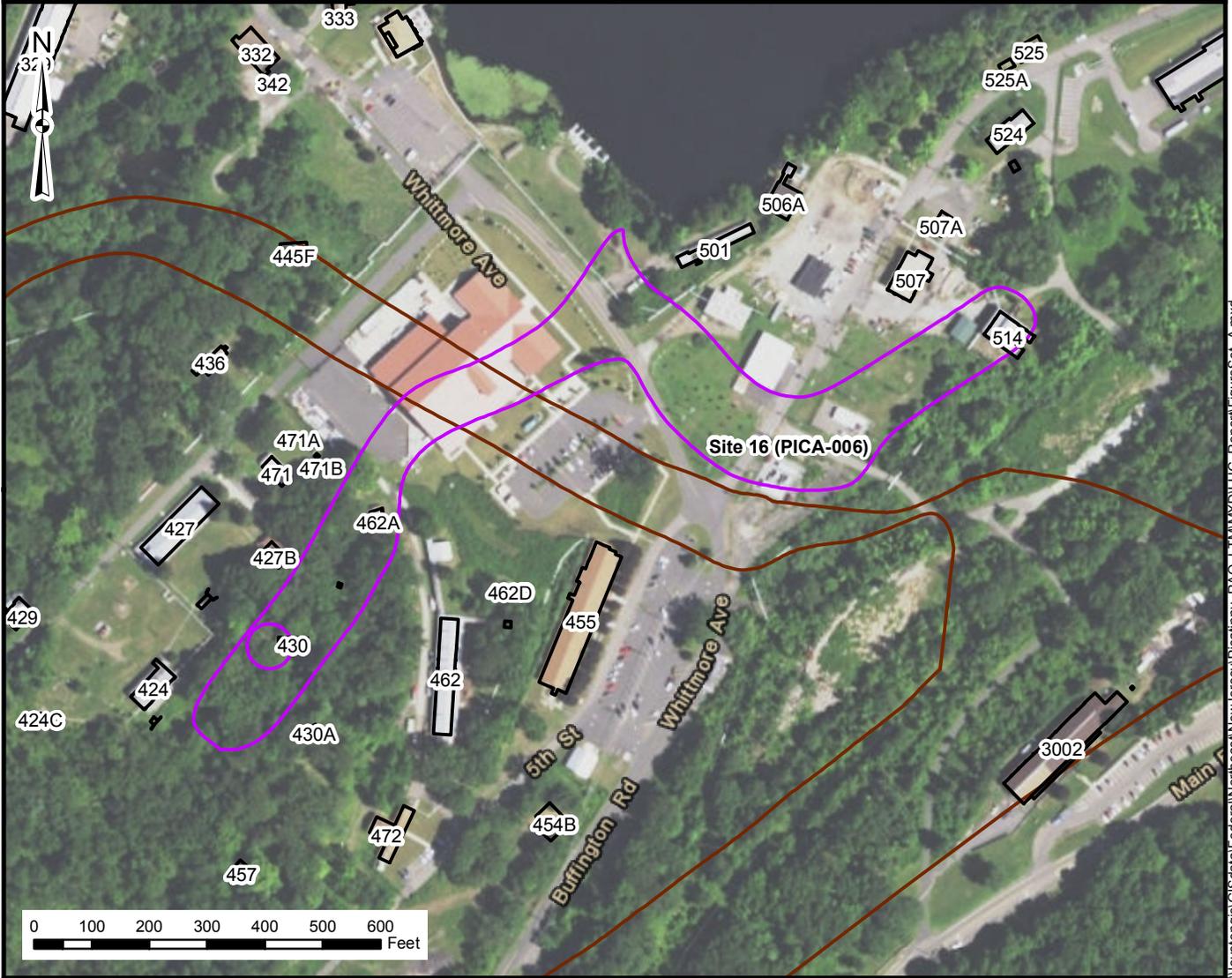
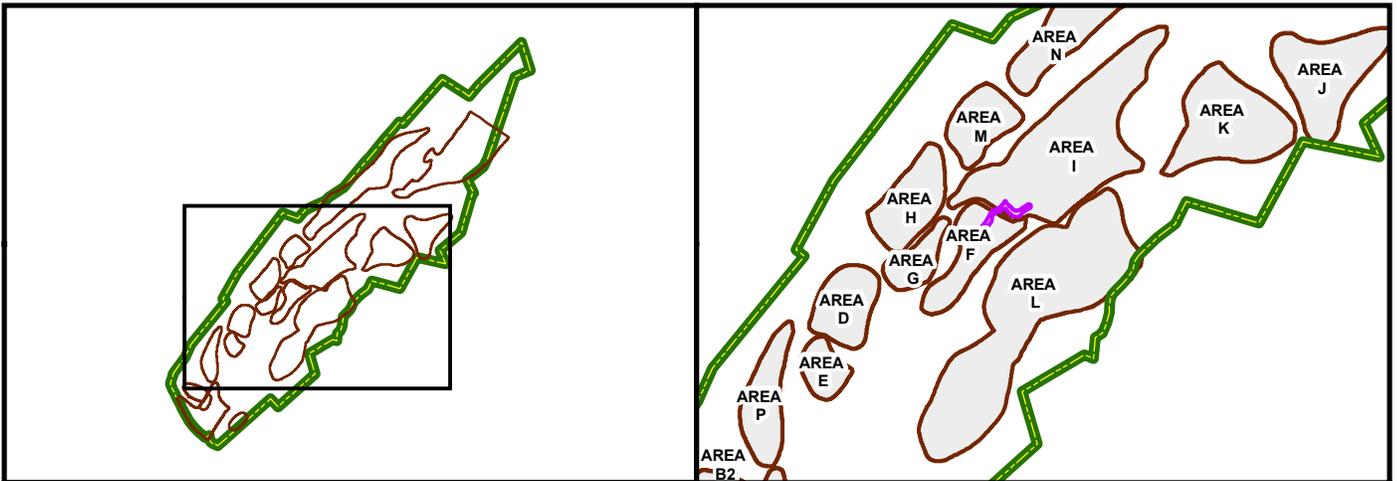
-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-3
Site 18 (PICA-001)

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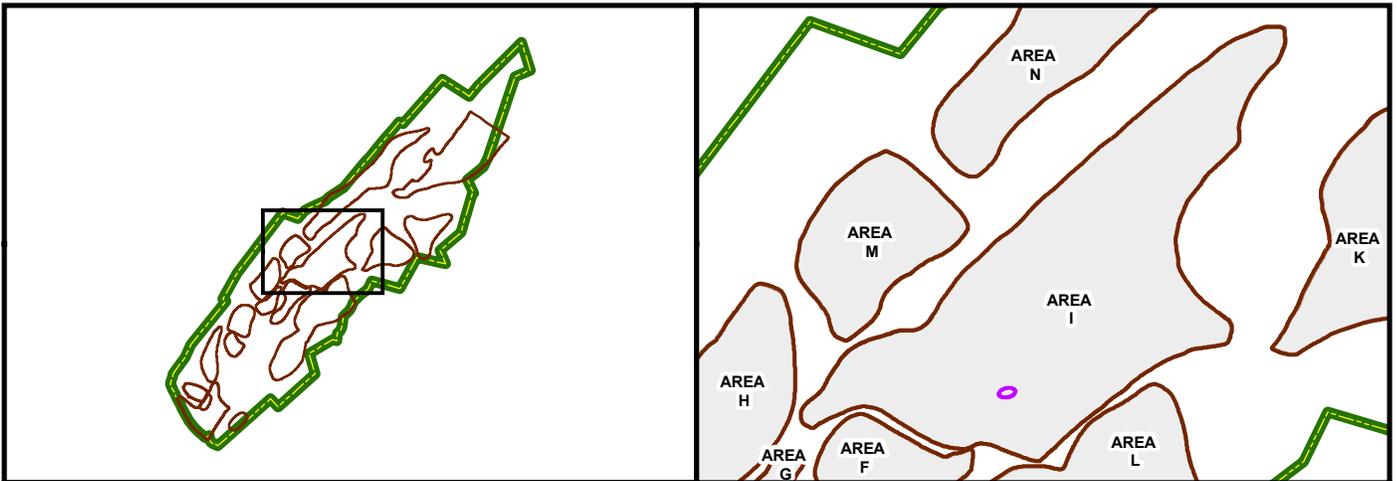
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-4
Site 16 (PICA-006)



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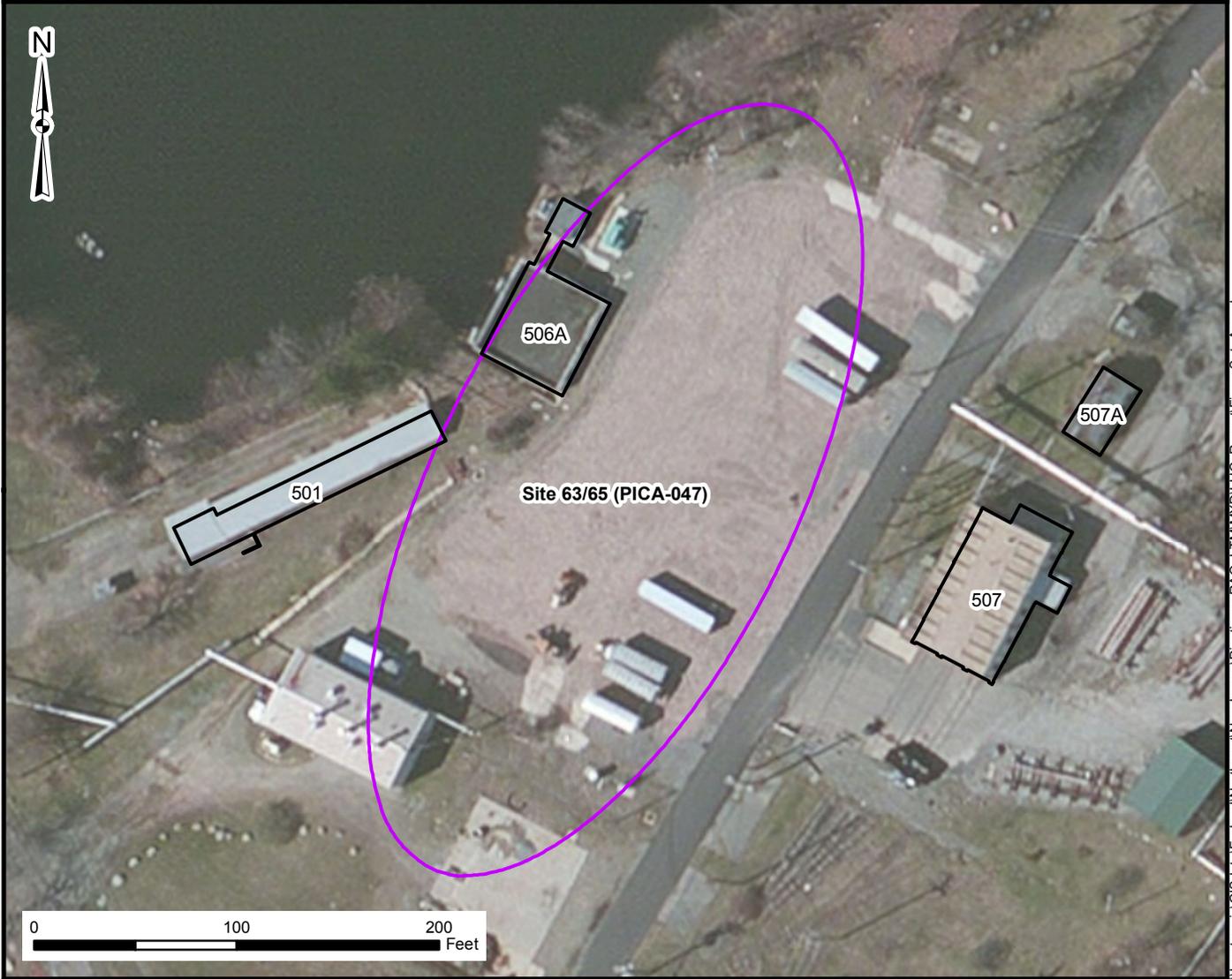
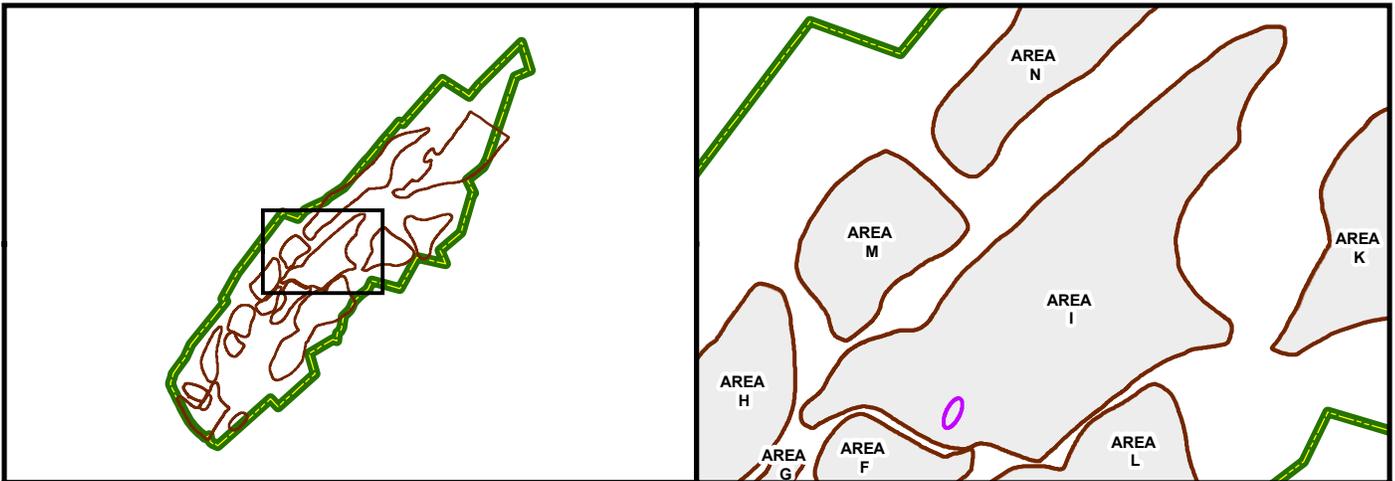
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-5
Site 50 (PICA-022)



Legend

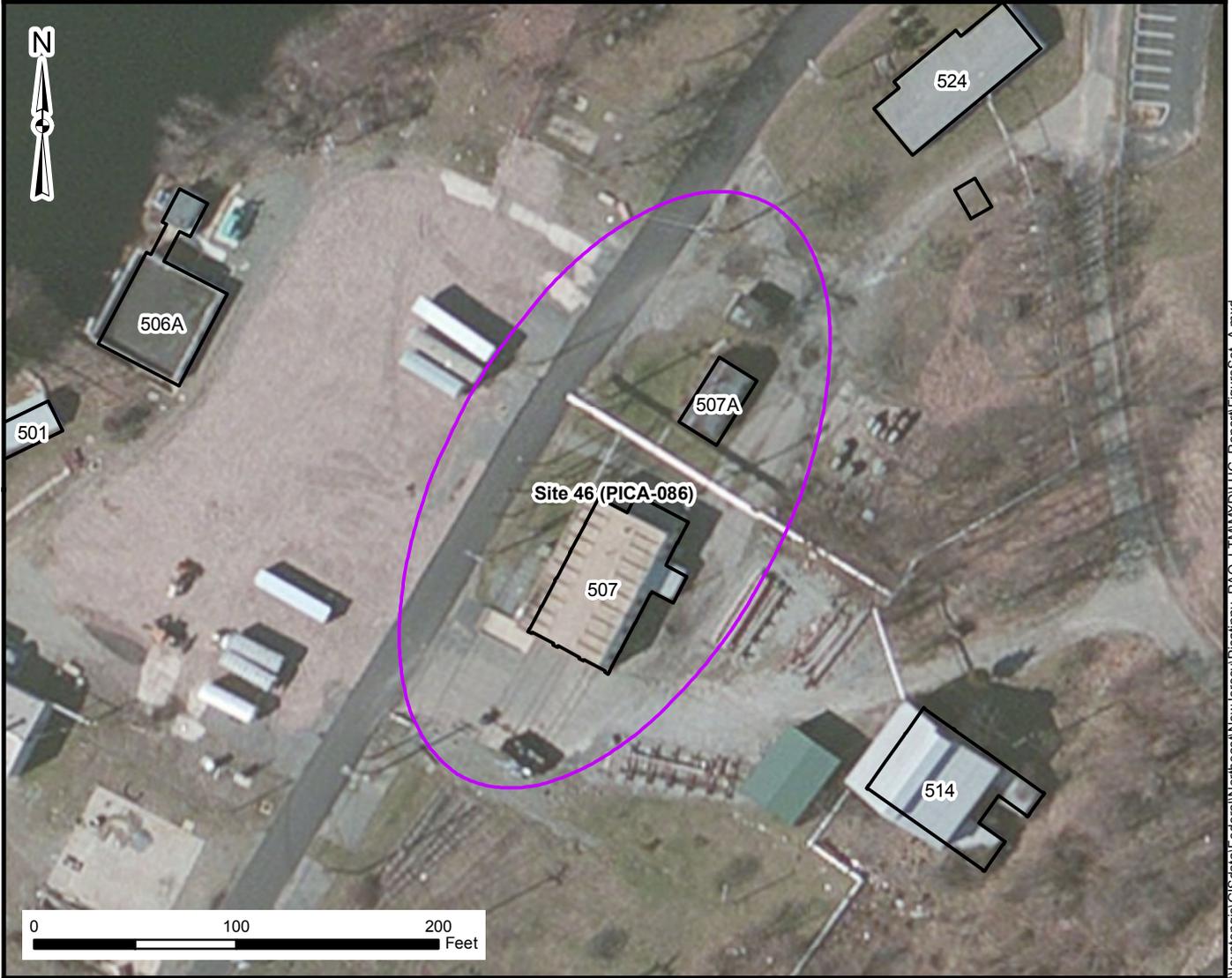
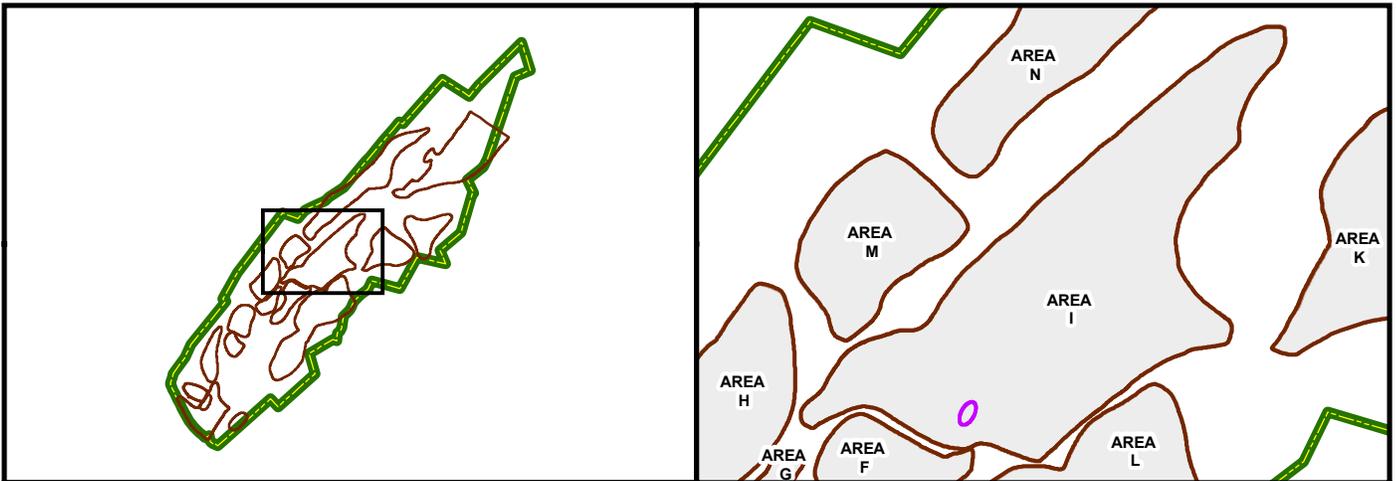
-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-6
Site 63/65 (PICA-047)

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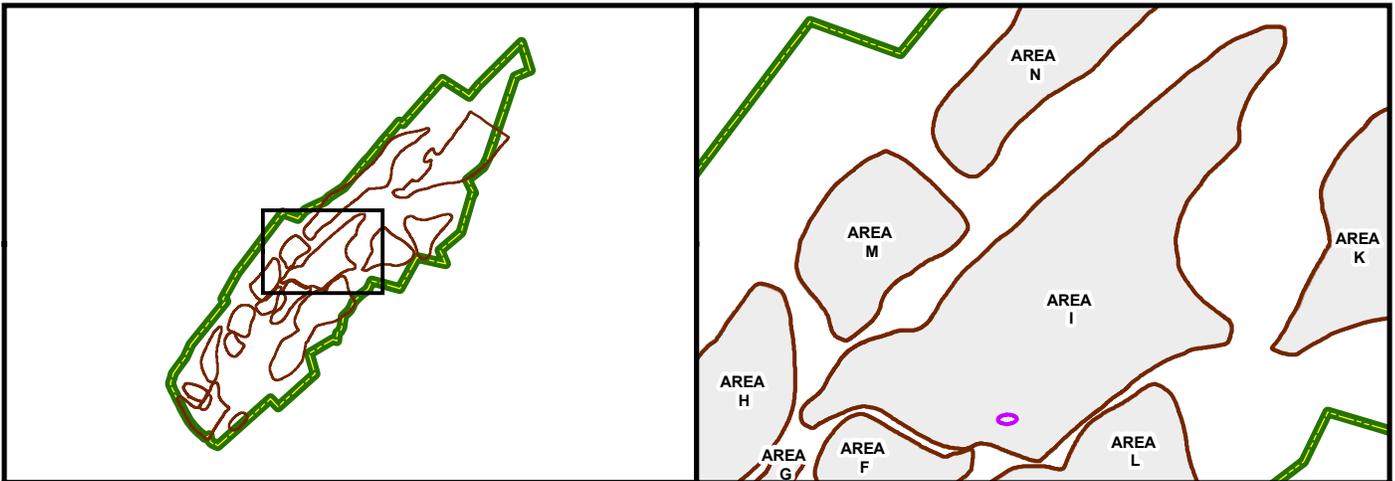
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-7
Site 46 (PICA-086)



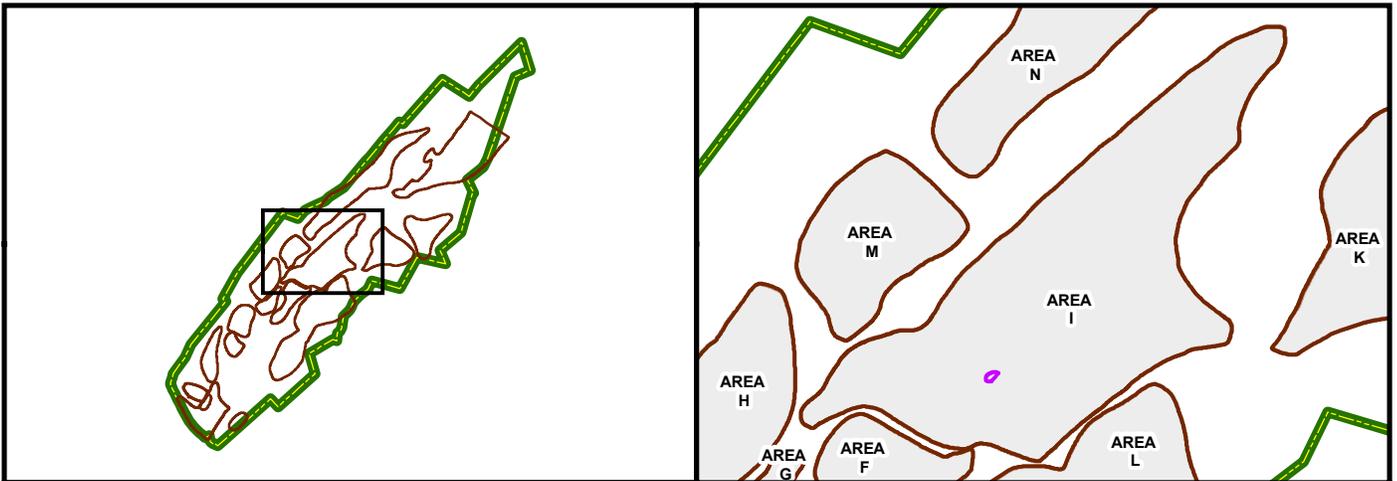
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-8
Site 32 (PICA-073)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L\TMMXD\LUC_Report\FigureSet_A.mxd

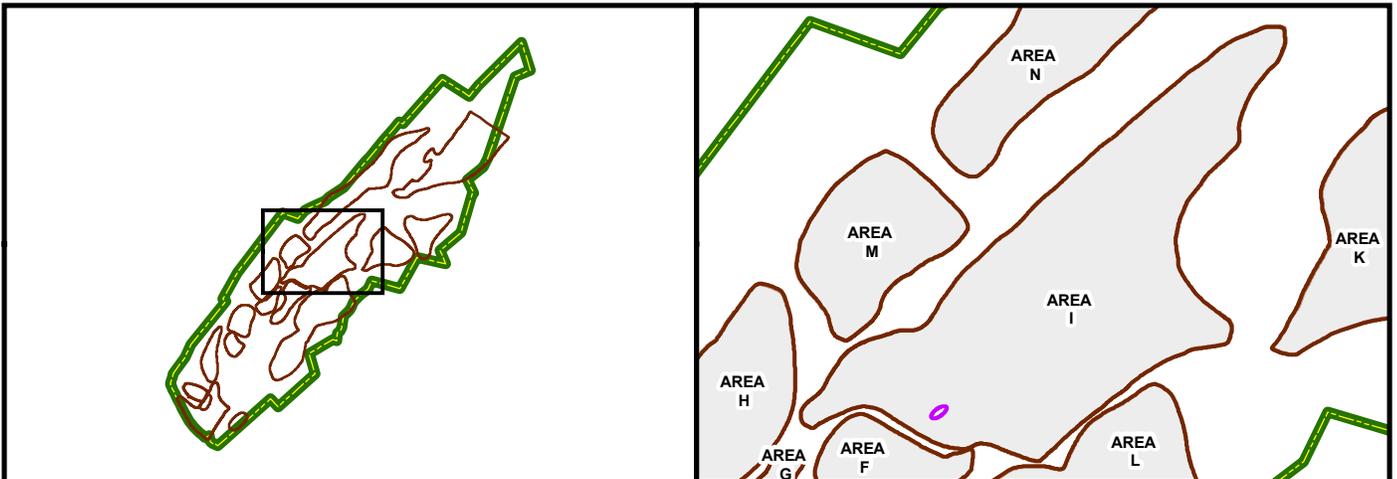
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-9
Site 33 (PICA-074)



\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd

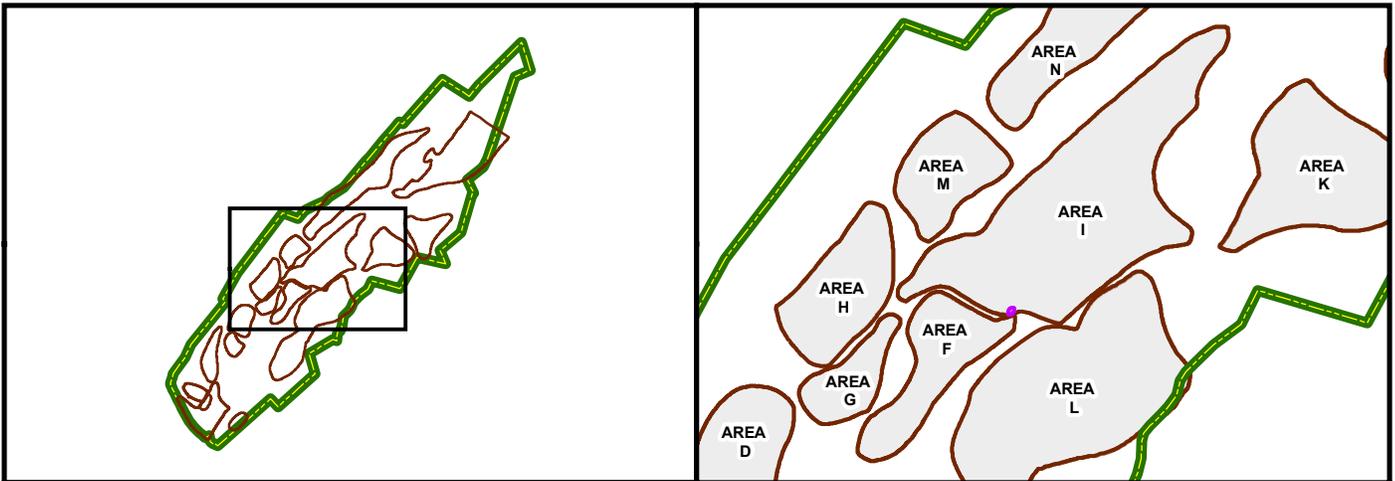
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-10
Site 97 (PICA-140)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L\TMMXD\LUC_Report\FigureSet_A.mxd

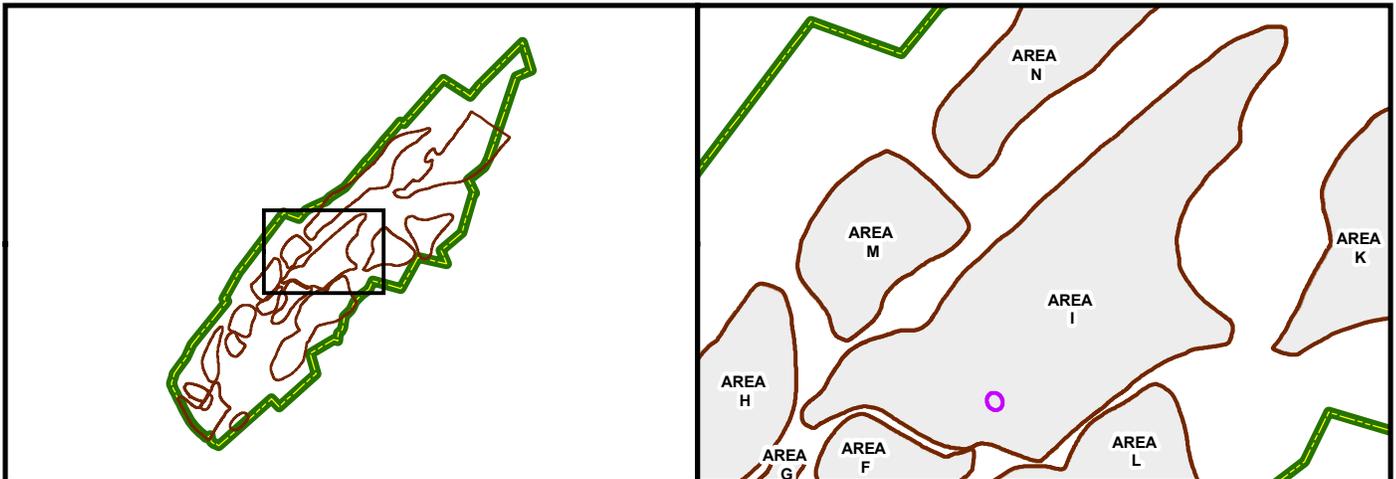
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-11
Site 105 (PICA-142)



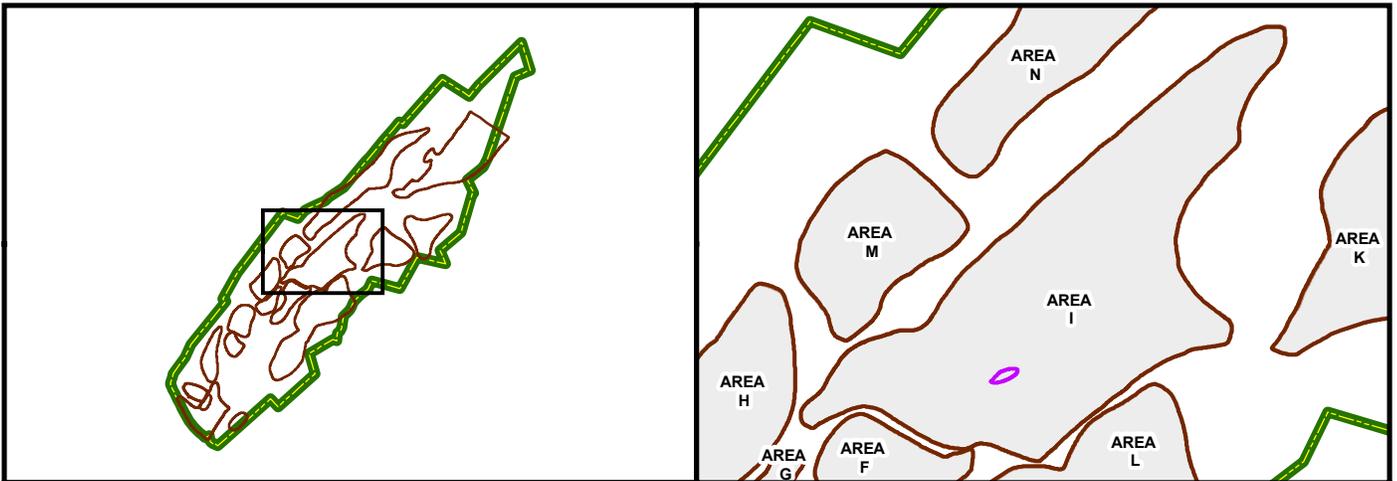
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-12
Site 147 (PICA-064)



\\lovetorgis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L\TMMXD\LUC_Report\FigureSet_A.mxd

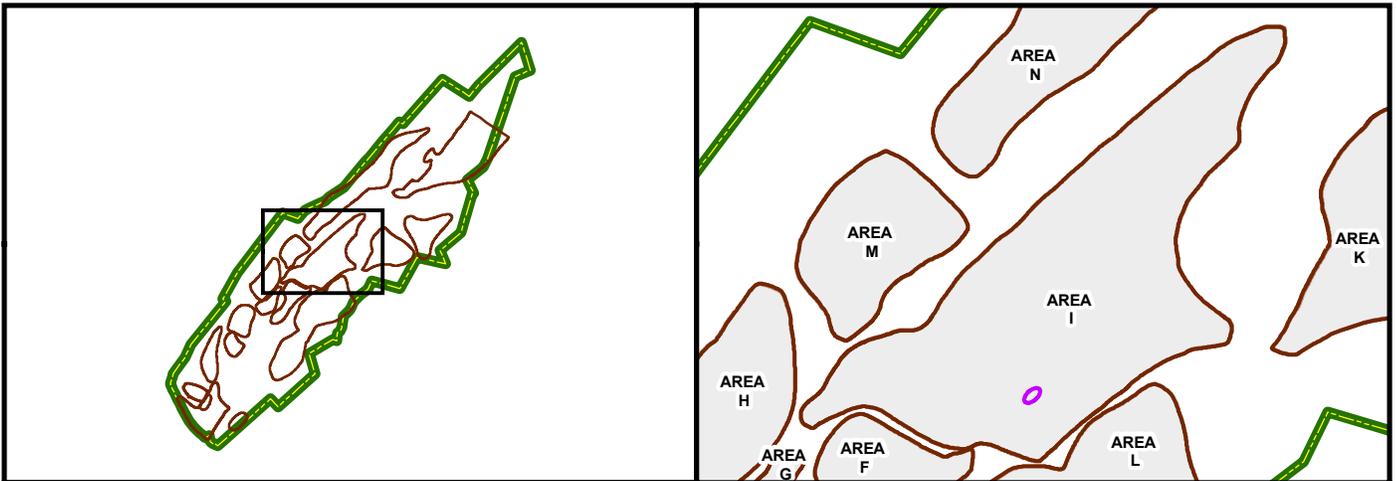
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-13
Site 148 (PICA-148)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXDILUC_Report\FigureSet_A.mxd

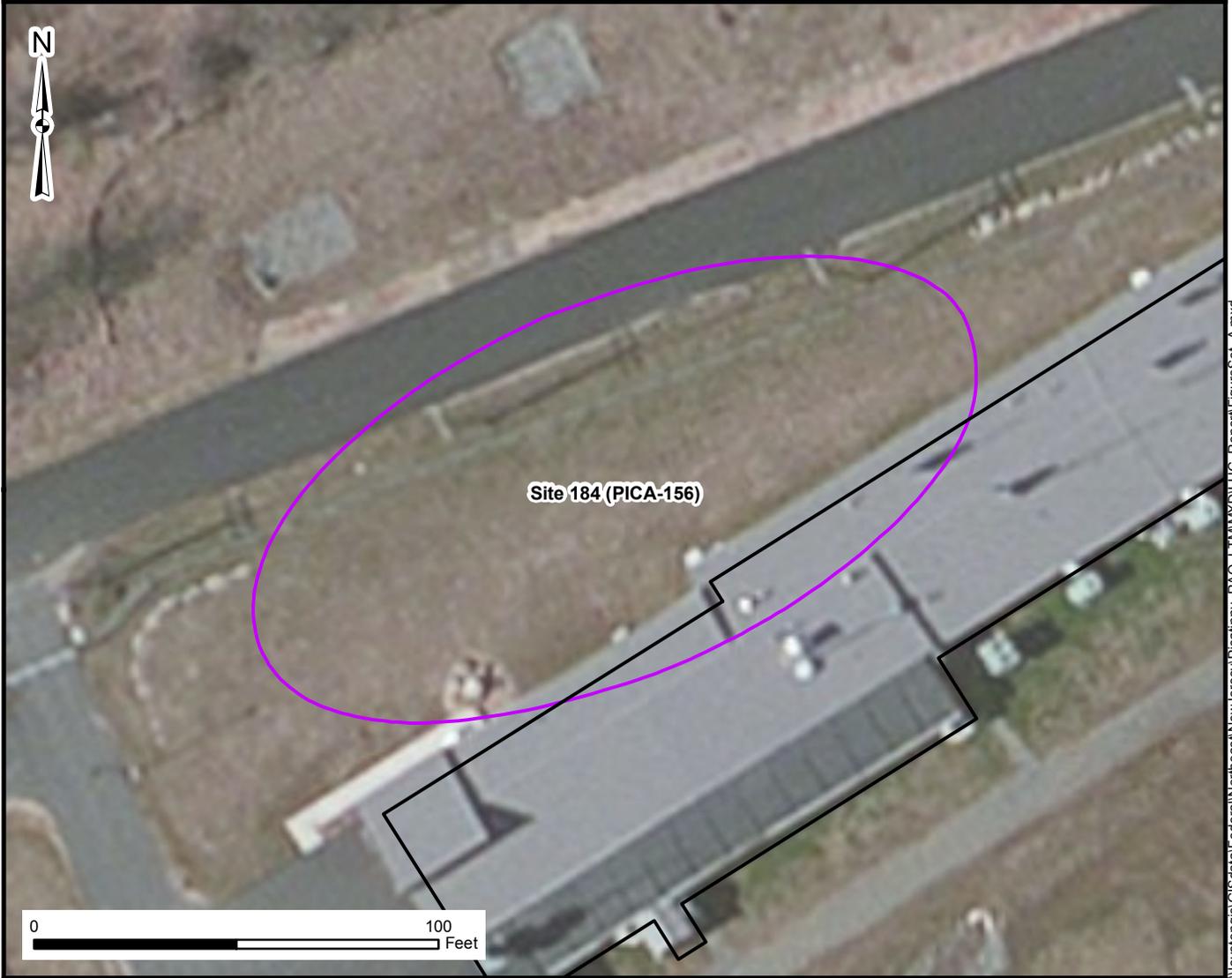
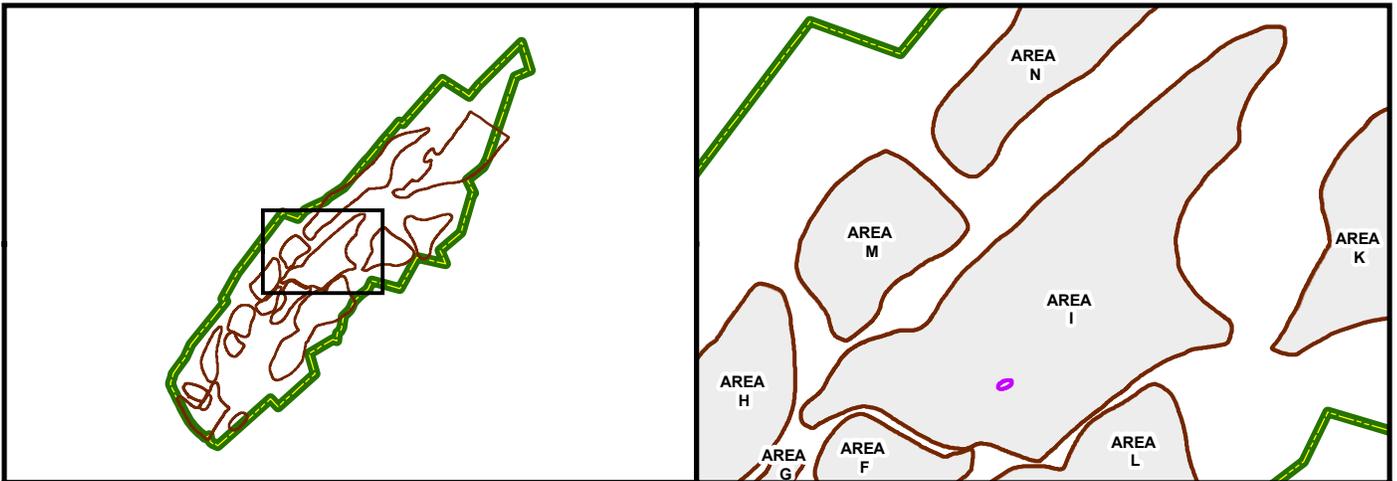
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-14
Site 150 (PICA-150)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXXDILUC_Report\FigureSet_A.mxd

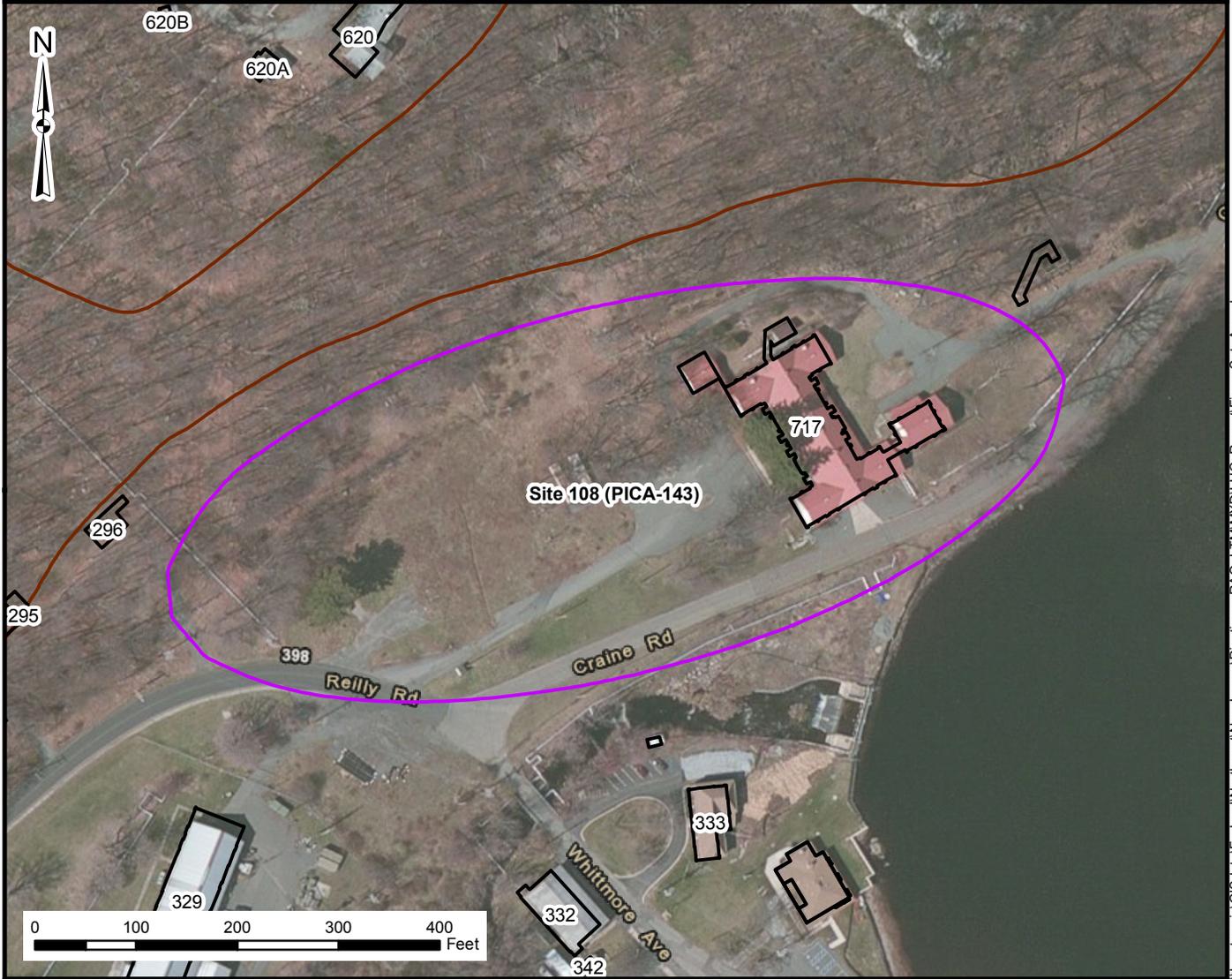
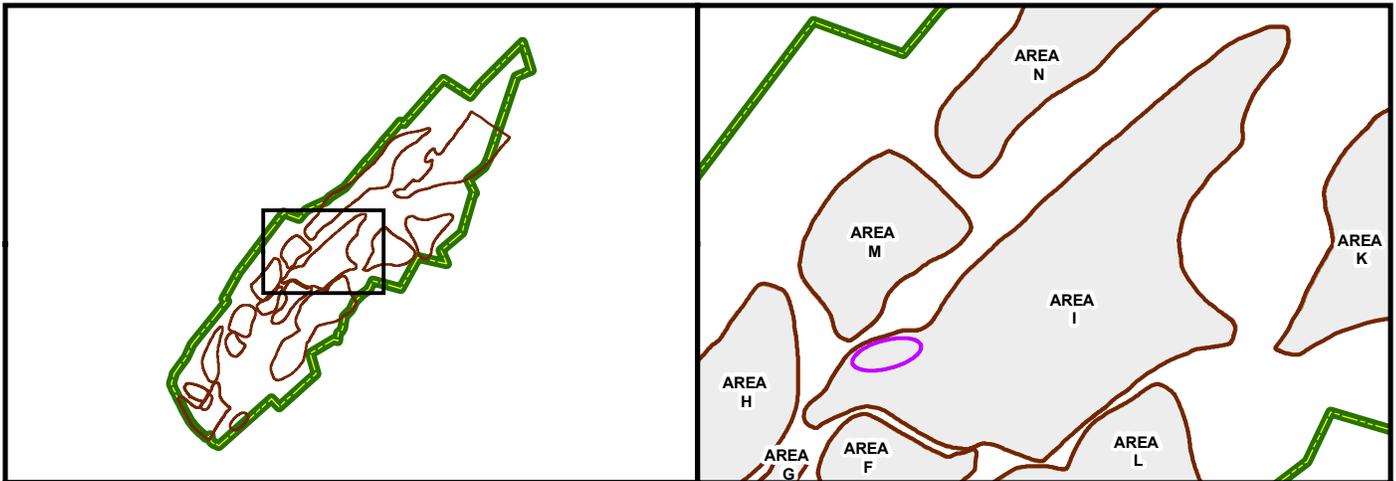
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-15
Site 184 (PICA-156)



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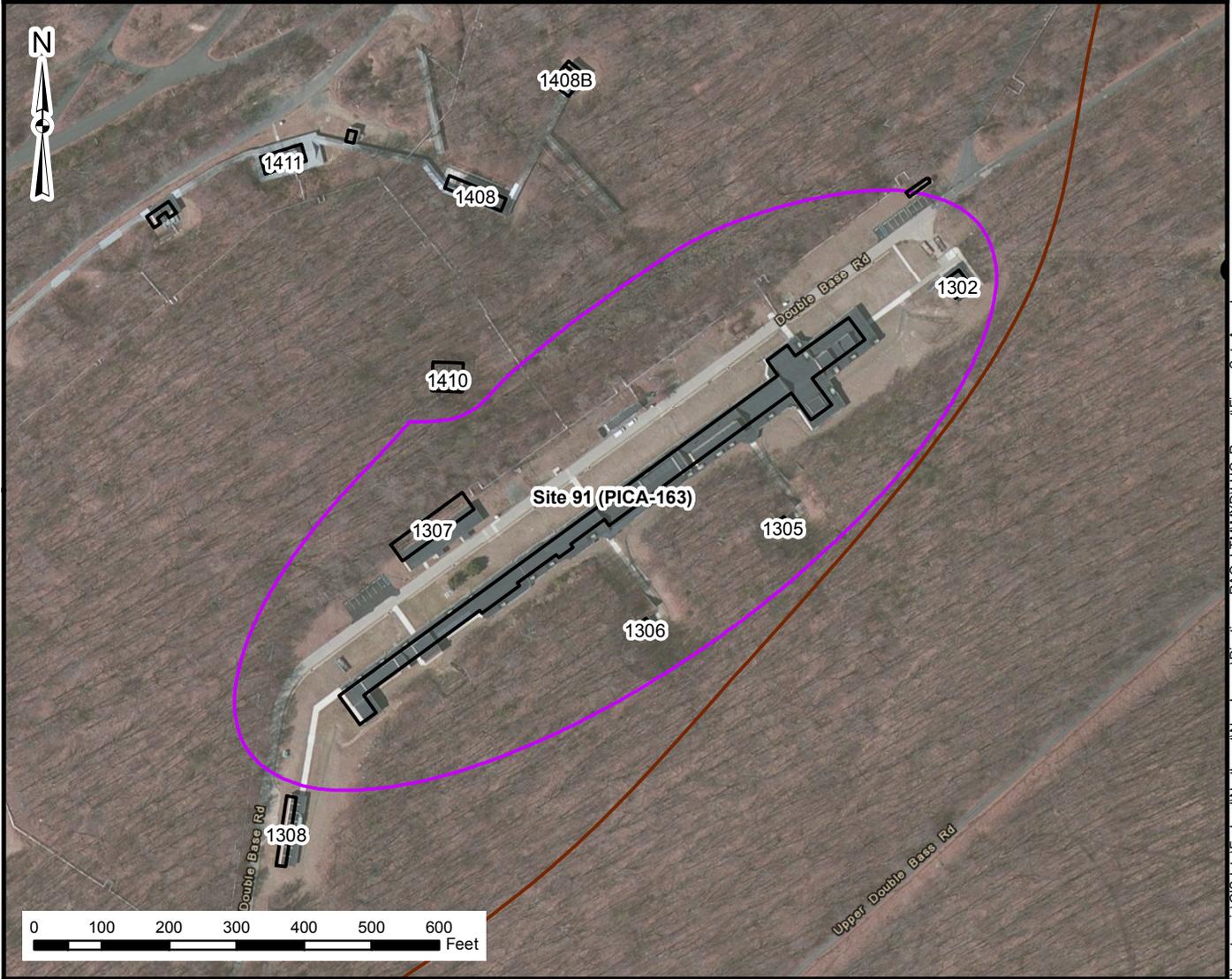
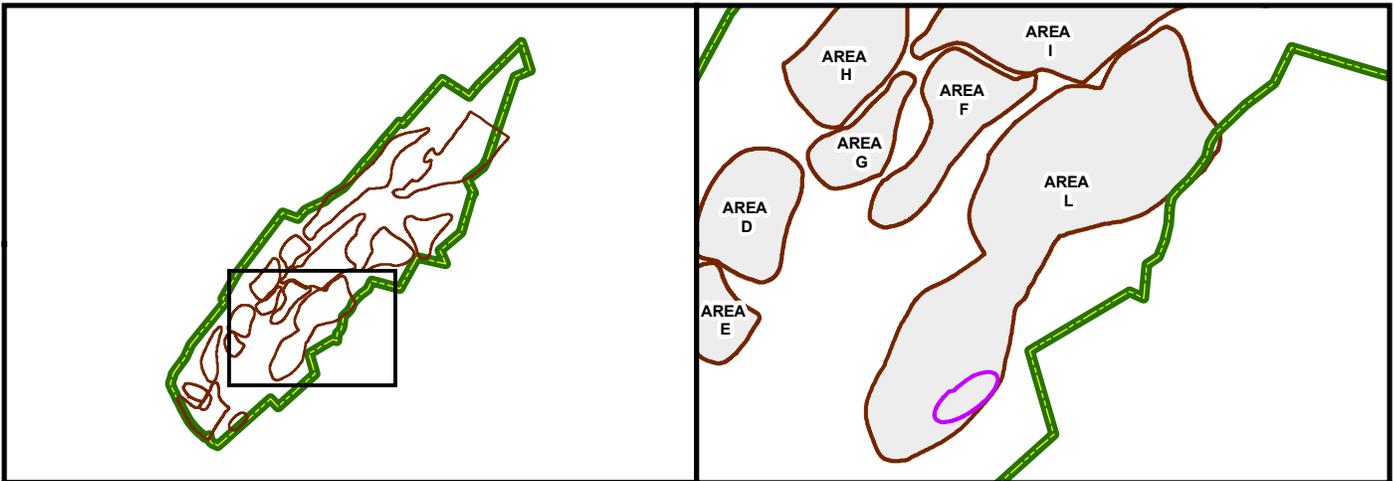
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-16
Site 108 (PICA-143)



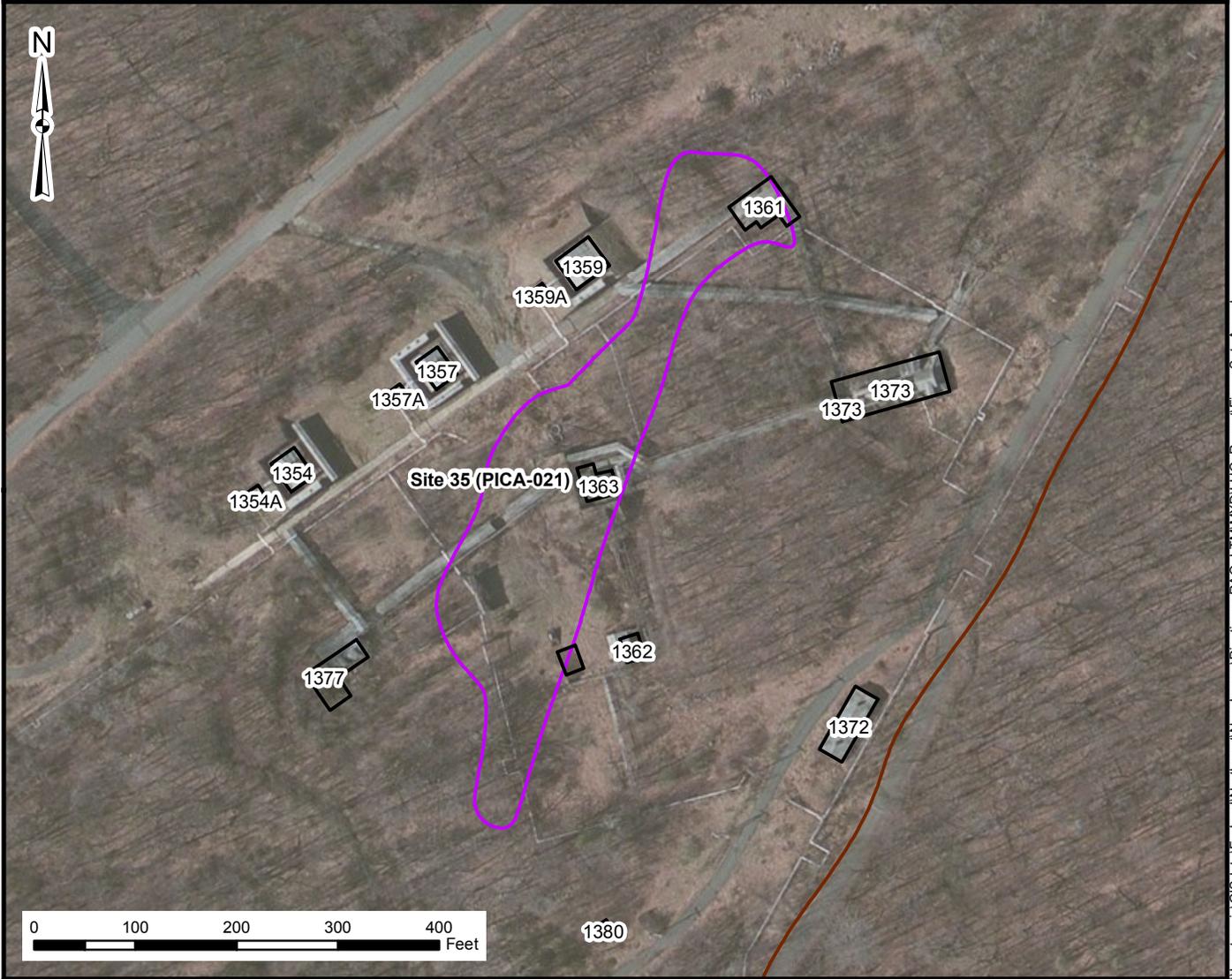
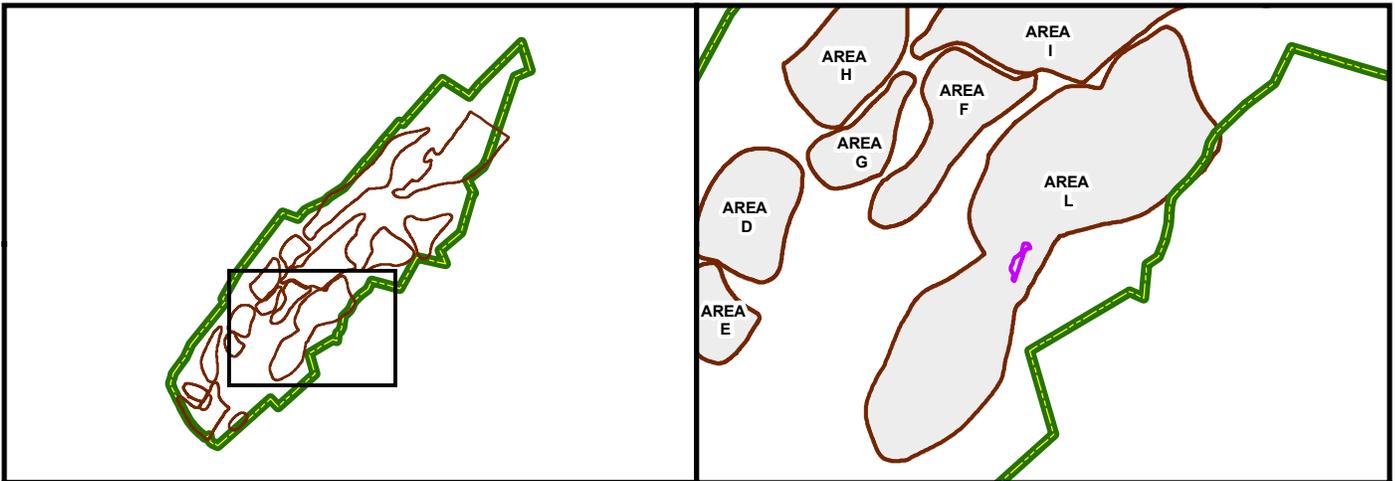
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-17
Site 91 (PICA-163)



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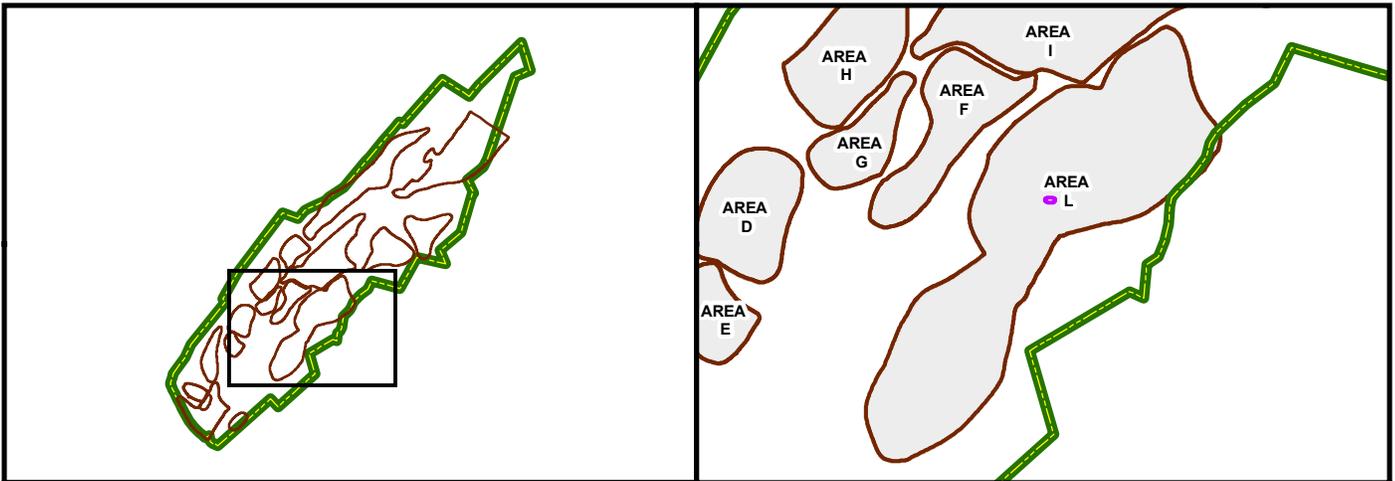
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-18
Site 35 (PICA-021)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXXDILUC_Report\FigureSet_A.mxd

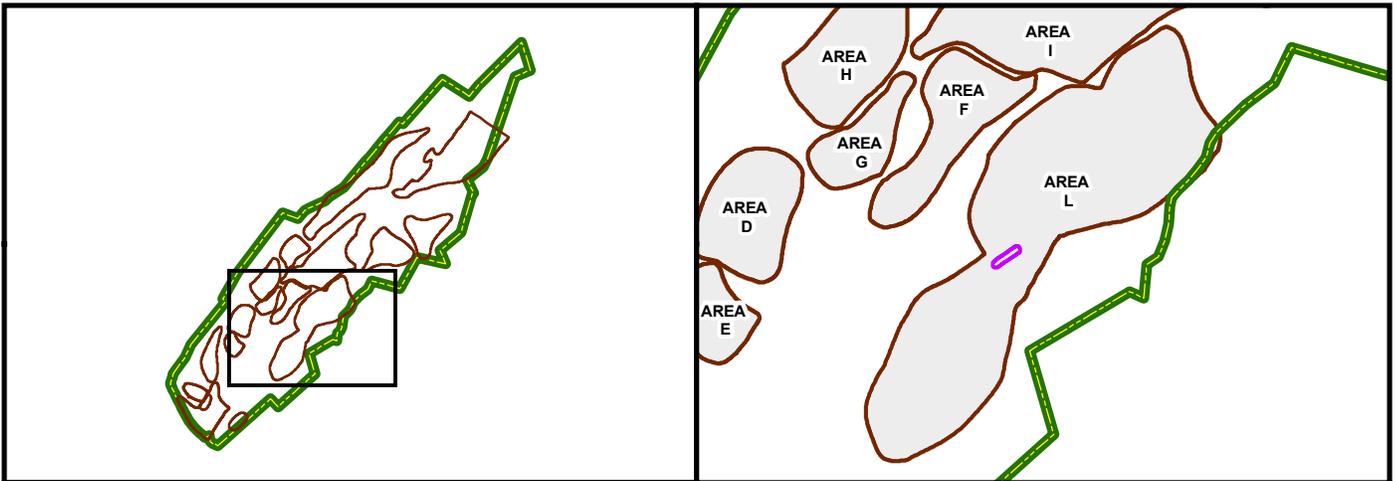
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-19
Site 161 (PICA-172)



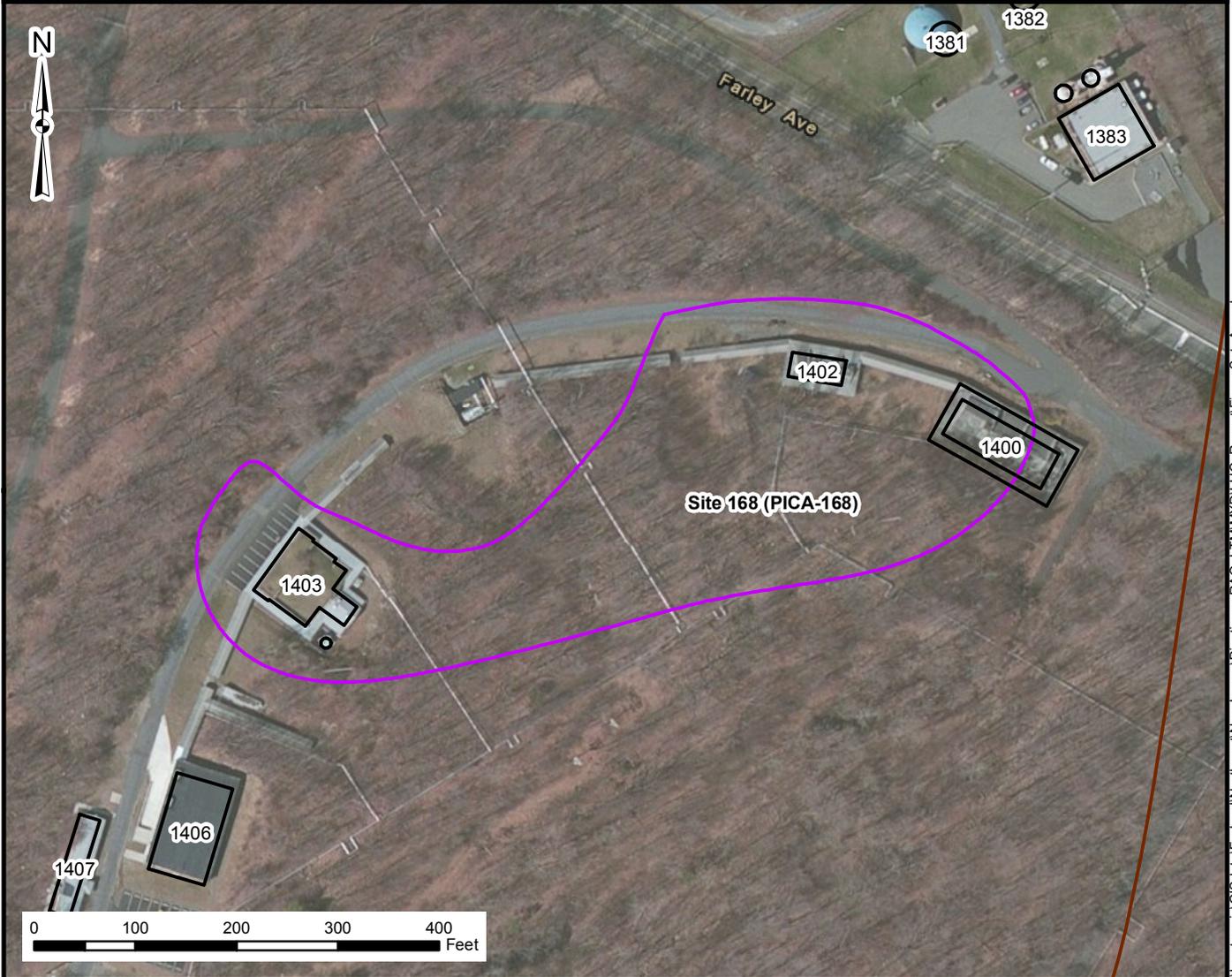
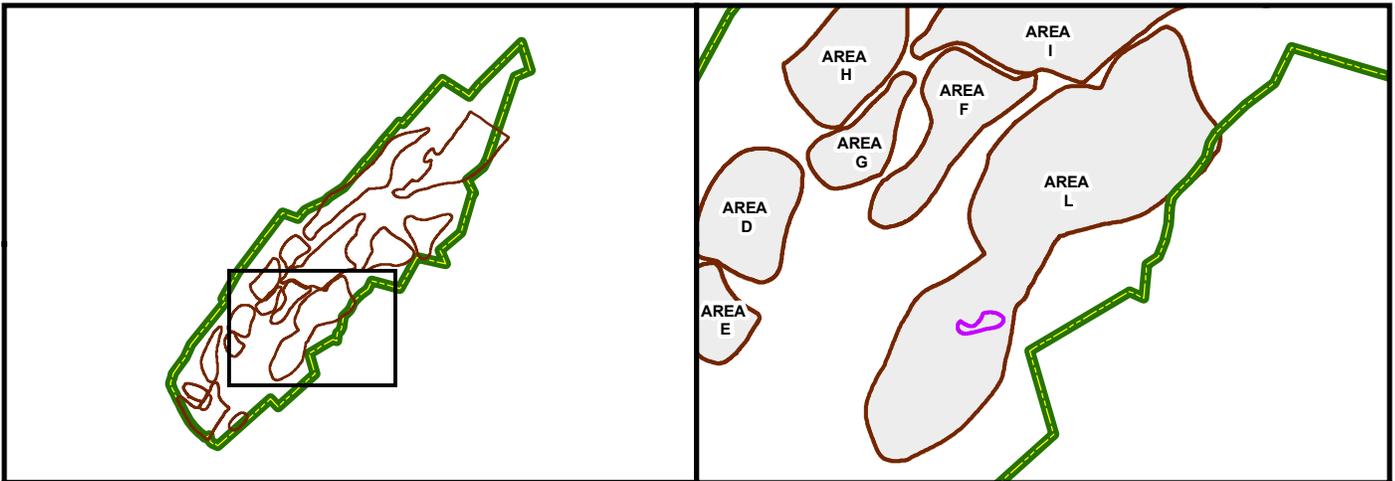
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-20
Site 166 (PICA-174)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd

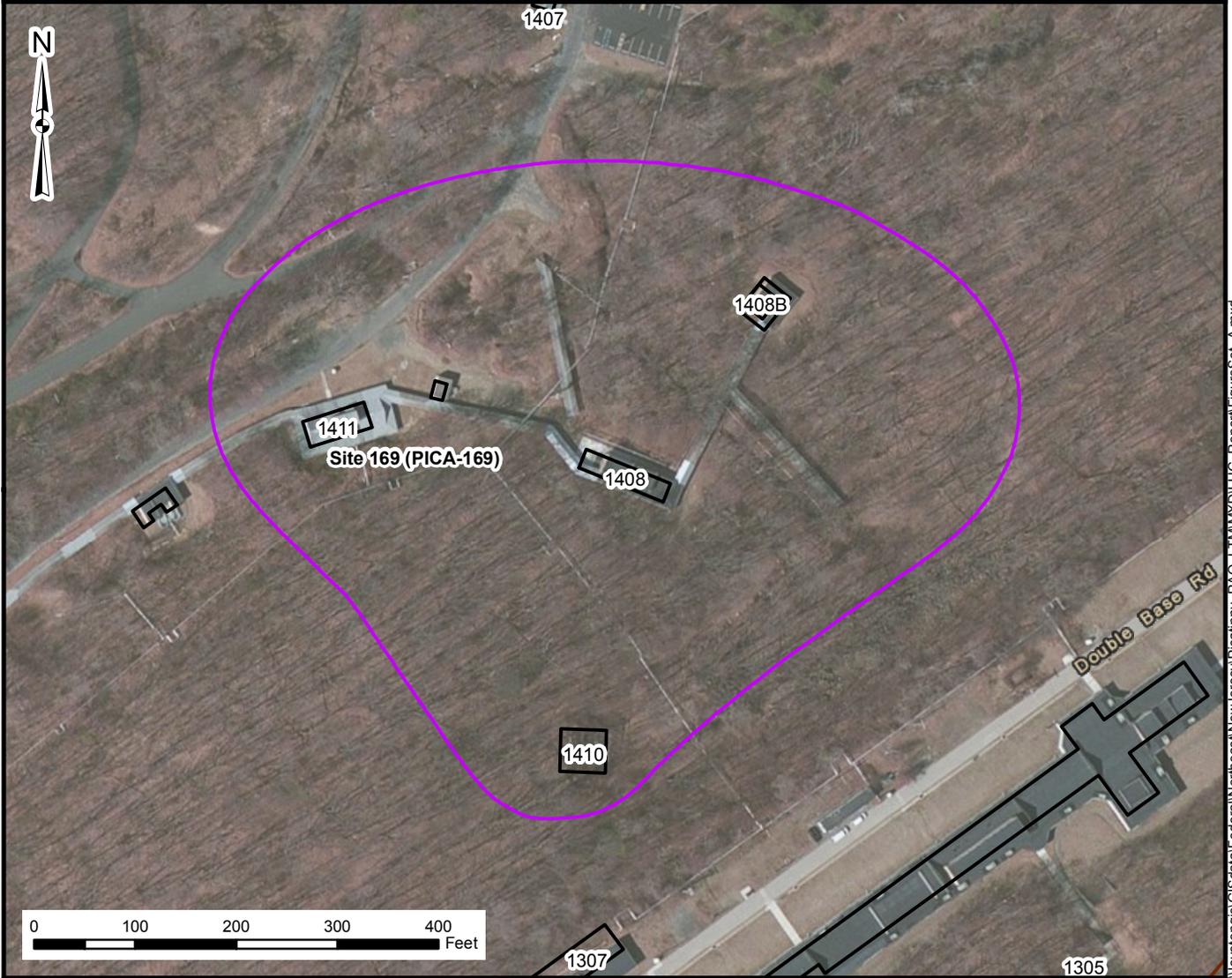
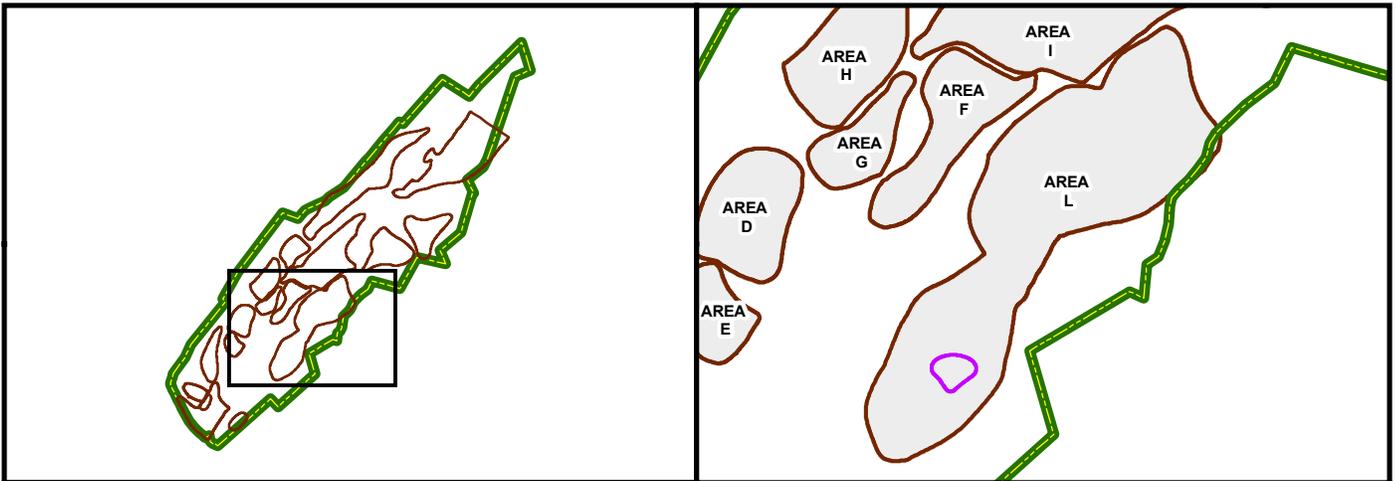
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-21
Site 168 (PICA-168)



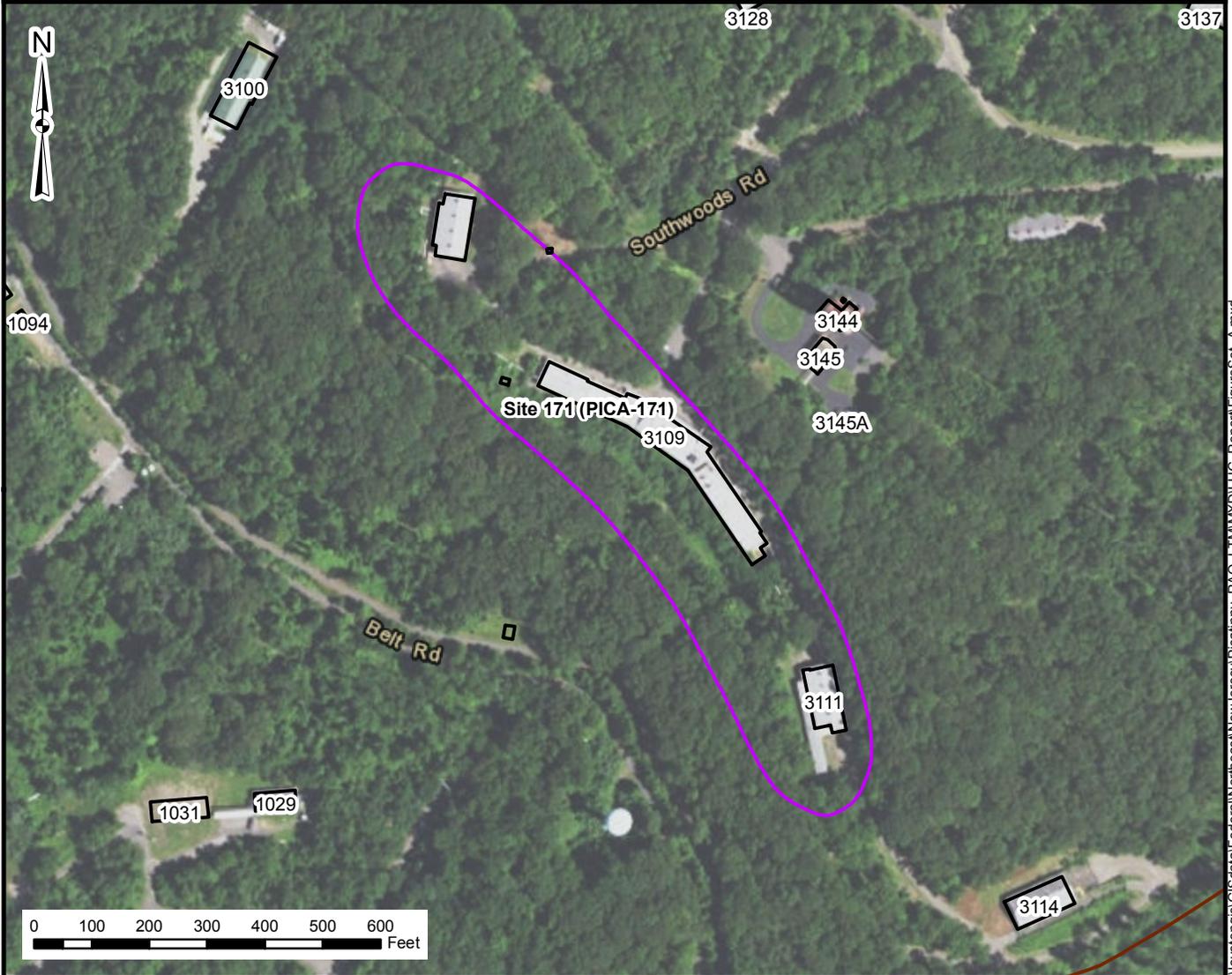
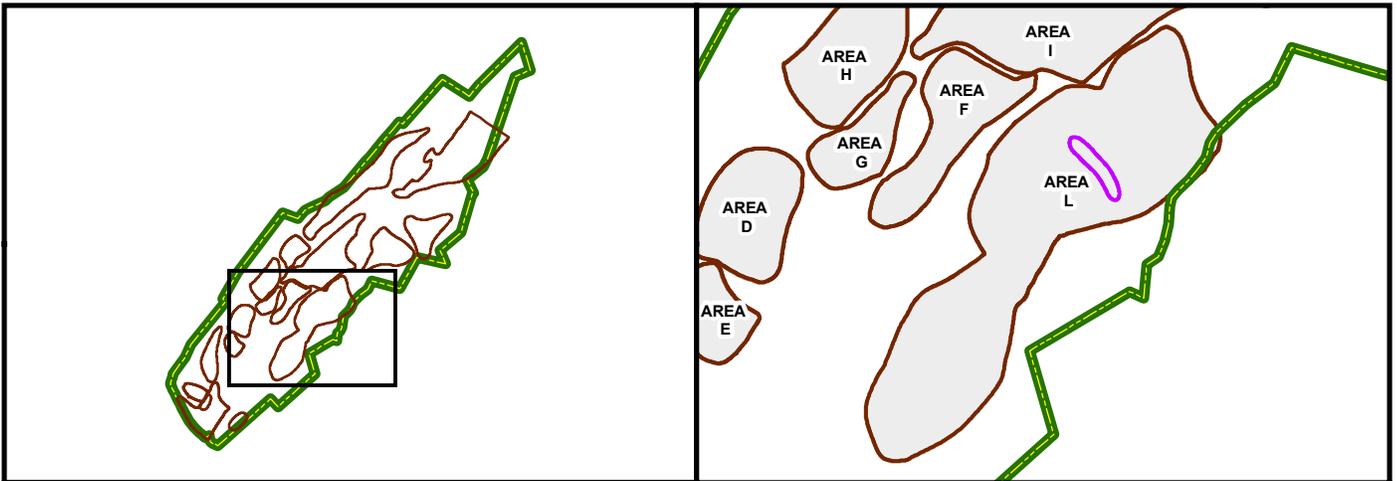
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-22
Site 169 (PICA-169)



\\lovetorgis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd

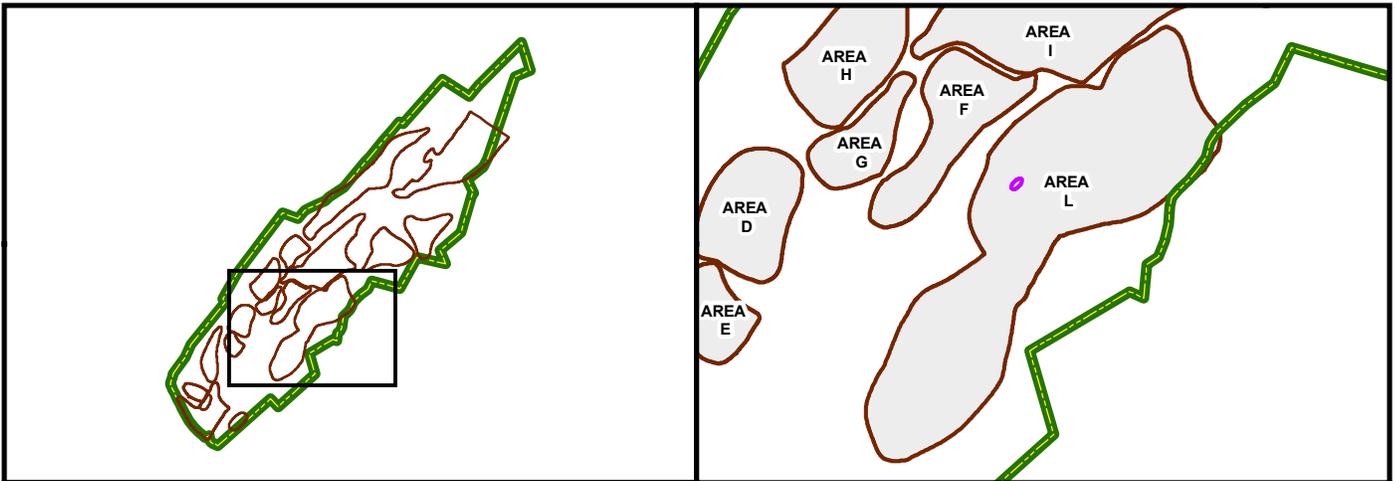
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-23
Site 171 (PICA-171)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMMXDILUC_Report\FigureSet_A.mxd

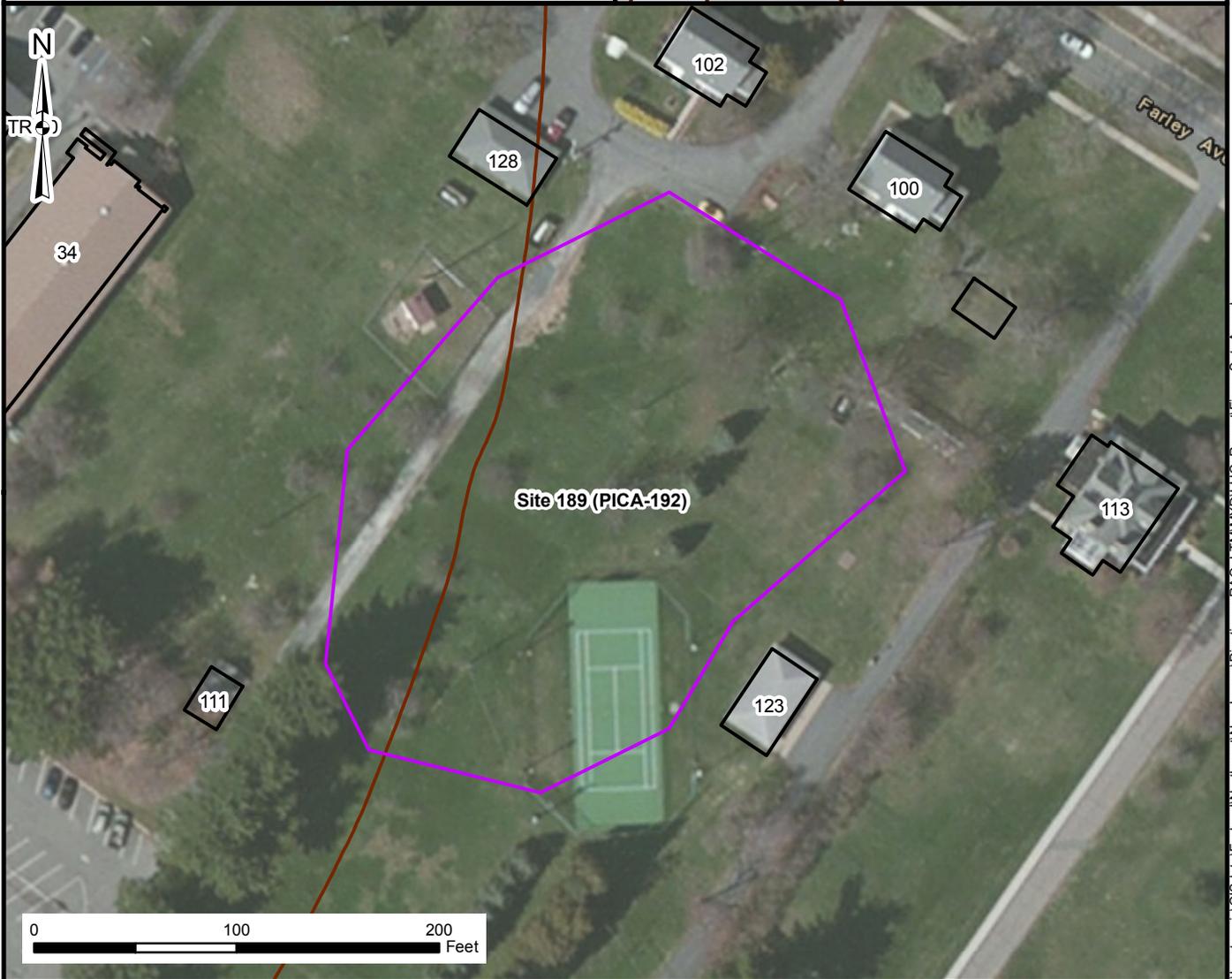
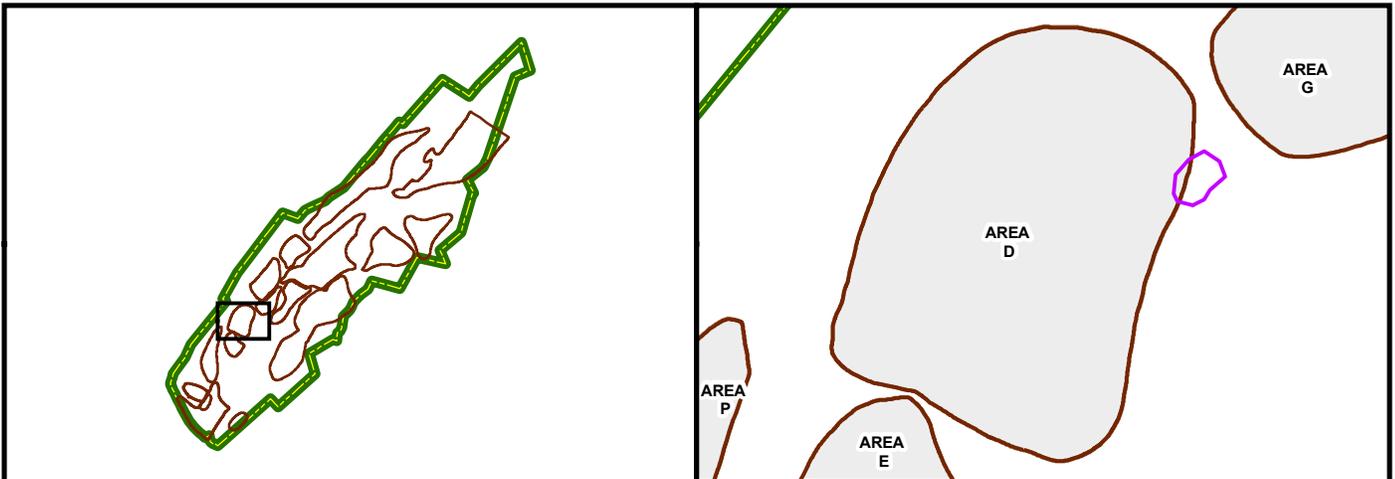
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-24
Site 162 (PICA-173)



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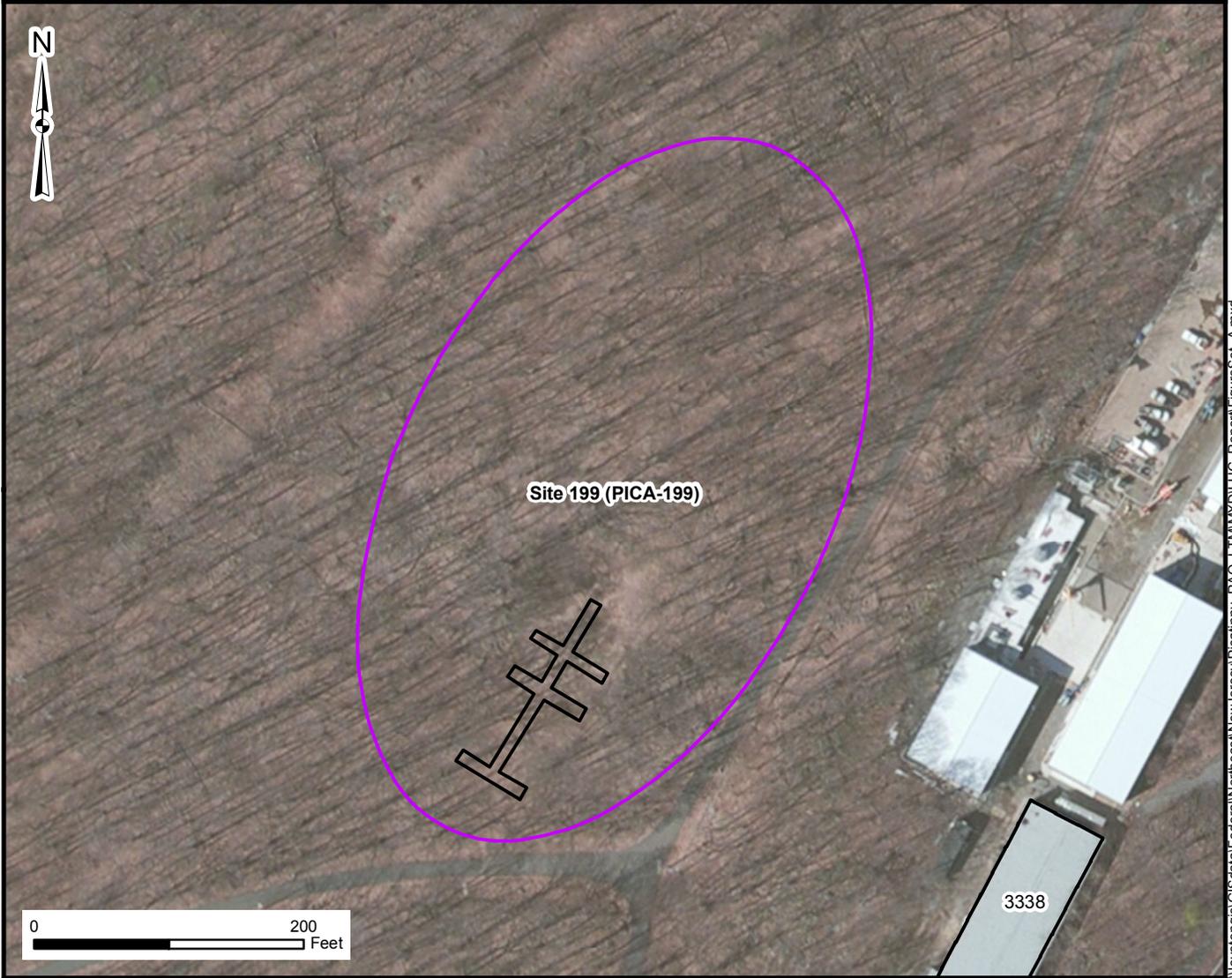
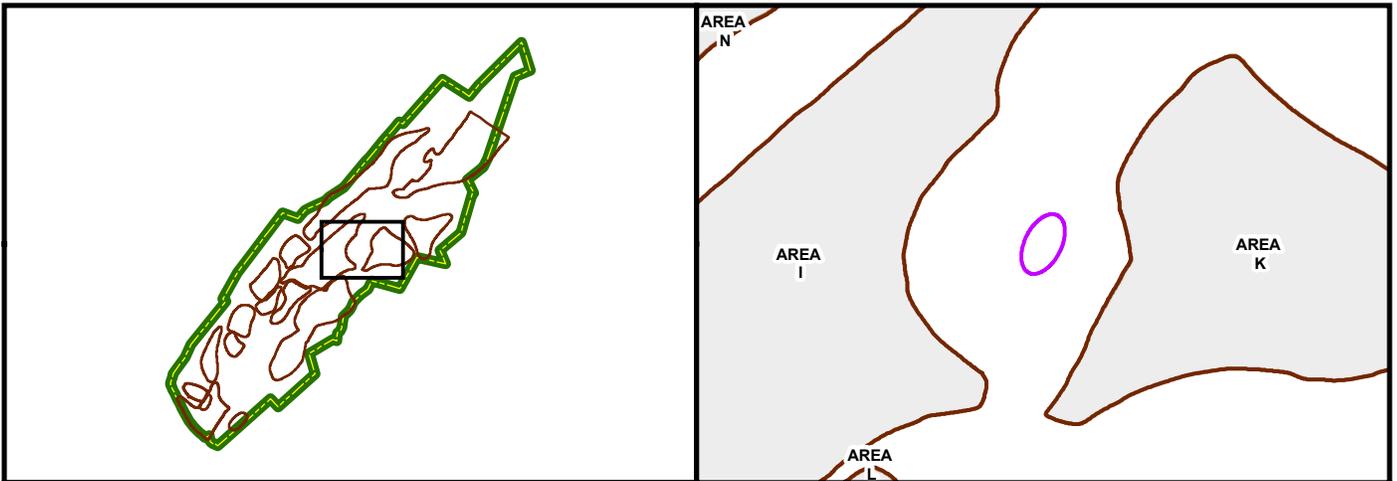
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-25
Site 189 (PICA-192)



Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- Asphalt Cap
- Vegetative Cover



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure T-26
Site 199 (PICA-199)

25-Site Annual Land Use Monitoring Form

For Sites 17 (PICA-001), Site 18 (PICA-001), Site 16 (PICA-006), Site 50 (PICA-022), Sites 63/65 (PICA-047), Site 32 (PICA-073), Site 33 (PICA-074), Site 46 (PICA-085), Site 97 (PICA-140), Site 105 (PICA-142), Site 147 (PICA-064), Site 148 (PICA-148), Site 150 (PICA-150), Site 184 (PICA-056), Site 108 (PICA-143), Site 35 (PICA-021), Site 91 (PICA-163), Site 161 (PICA-172), Site 166 (PICA-174), Site 168 (PICA-168), Site 169 (PICA-169), Site 162 (PICA-173), Site 171 (PICA-171), Site 189 (PICA-192), and Site 199 (PICA-199)

This land use monitoring form is in accordance with the No Further Action with Monitoring of Land Use Record of Decision for Sites within PICA 001, 006, 022, 085, 143, 163, 171, 193, and 199 and No Further Action For PICA 146. The Record of Decision was signed by the Picatinny Commander and USEPA Region 2 Director of the Emergency and Remedial Response Division on 20 March, 2014 and 15 May 2014; respectively.

I. Instructions to Inspector:

The intent of this inspection form is to document land use of the 25-sites included herein and to ensure that the land use remains military/industrial.

1. Physically inspect each site included with the following checklists to verify that land use is currently military or industrial [except for Site 189 (PICA-192) which is a recreational land use] since the last inspection.
2. Complete the inspection checklists.
3. Photograph document each site, ensure that the photos capture the current use of each site as they pertain to a military/industrial use; or of any deviations from military/industrial use.

II. Certification of Land Use

The signature below certifies the following:

- That each site included within the inspection checklist has been inspected by the Army or its representative to verify that the current and the reasonably anticipated future land use of the sites remains military/industrial;
- That existing controls are in place at Picatinny Arsenal to prevent unrestricted use of the sites;
- That the Picatinny Master Plan has been reviewed and/or the Master Planning Office has been consulted to identify planned future use of the sites to ensure that the future use is consistent with military/industrial use;
- The selected "No Further Action" remedy remains protective of human health; and
- The Army will notify the United States Environmental Protection Agency at least 45 days in advance of any proposed land use changes that are inconsistent with military and industrial land use.

Approved by Ted Gabel, Project Manager for
Environmental Restoration

Date _____

25 Site NFA Land Use Inspections

Site: Site 16 PICA-006, Guncotton Line

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	12:25 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active area. Buildings 445, 448, 439, and 452 have been demolished

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 16 PICA-006, Guncotton Line

Site Photographs



Photo 1: Notes
Gravel lot, eastern portion of site 16



Photo 2: Notes
Asphalt road surrounded by dense vegetation.

25 Site NFA Land Use Inspections

Site: Site 17 PICA-001 Northern Tetryl Pits

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	12:31 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Densely vegetated area with vacant building.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 17 PICA-001 Northern Tetryl Pits

Site Photographs



Photo 1: Notes

Dense vegetation between 17th and 18th ave.

25 Site NFA Land Use Inspections

Site: o Site 18 PICA-001 Southern Tetryl Pits

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/14/2015	1:22 PM	John Vrabel	Sovereign	

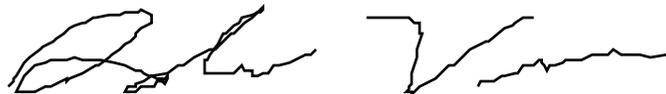
Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly descibe the current site use (e.g. unused vegetated field, vacent lot , research building, etc.):

Site 18 is not active. Surrounding area is densely vegetated.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: ○ Site 18 PICA-001 Southern Tetryl Pits

Site Photographs



Photo 1: Dense vegetation north of building 1031 and building 1029 and above ground piping



Photo 2: Building 1029

25 Site NFA Land Use Inspections

Site: Site 32 PICA-073, Storage Tanks (Building 553)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	8:26 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active area for machine shop, maintenance, dpw

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 32 PICA-073, Storage Tanks (Building 553)

Site Photographs



Photo 1: Notes
Densely vegetated area



Photo 2: Notes
Dense vegetation and unused filling station

25 Site NFA Land Use Inspections

Site: Site 33 PICA-074, Storage Tanks (Former Building 527A)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	9:38 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Non-active area, northwest of the site is densely vegetated. Buildings 527 and 527A have been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 33 PICA-074, Storage Tanks (Former Building 527A)

Site Photographs



Photo 1: Notes
Surface conditions

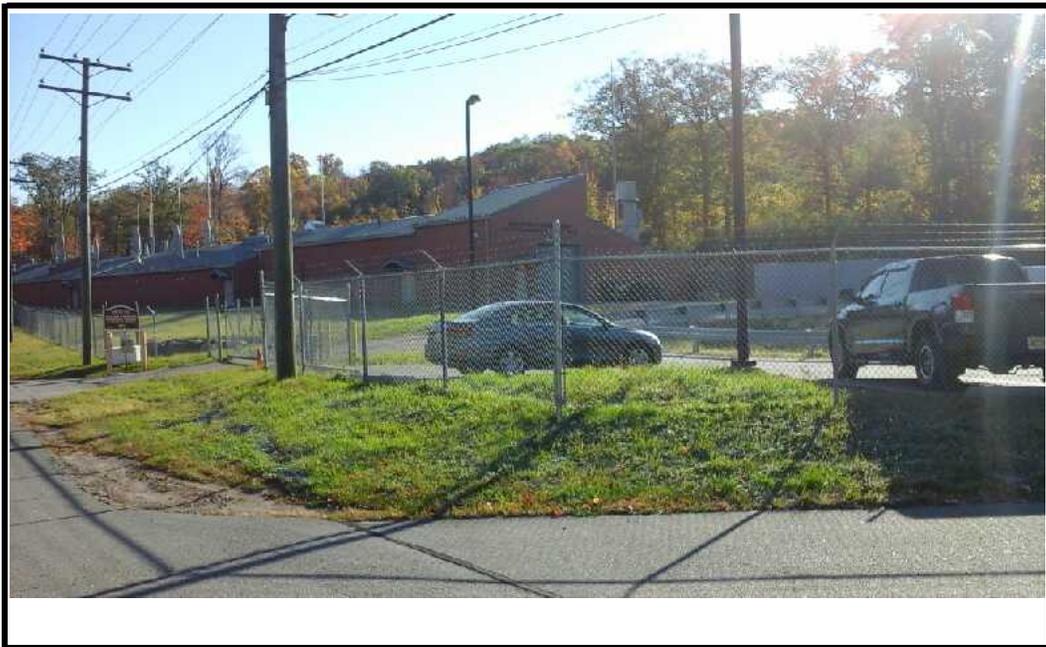


Photo 2: Notes
New building 526 pyrotechnics research and technology complex.

25 Site NFA Land Use Inspections

Site: Site 35 PICA-021 Nitoglycerin Processing Area (Former 1360s Buildings)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/15/2015	9:21 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Site is not active. Buildings have been demolished. Site currently under construction.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

Remove MT Hope steam lines in the 1300 area (project #4642)

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: ^o Site 35 PICA-021 Nitoglycerin Processing Area (Former)

Site Photographs

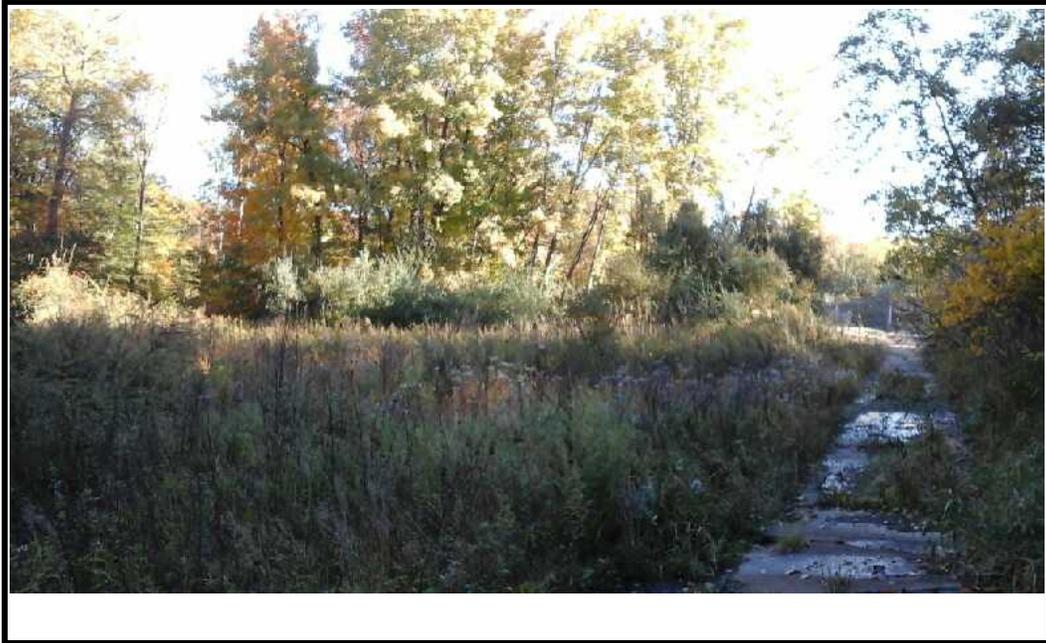


Photo 1: Dense vegetation in the vicinity of former building 1361, 1363 and 1365



Photo 2: Notes

25 Site NFA Land Use Inspections

Site: Site 35 PICA-021 Nitroglycerin Processing Area (Former

Site Photographs



Photo 3: Notes



Photo 4: Notes

25 Site NFA Land Use Inspections

Site: Site 46 PICA-085 Former 90-Day Waste Accumulation Area (Building 507)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	12:14 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Site is actively used 4 storage and sub contractors. Building 506 and 507a have been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 46 PICA-085 Former 90-Day Waste Accumulation Area

Site Photographs



Photo 1: Notes
Vegetated field next to access roads

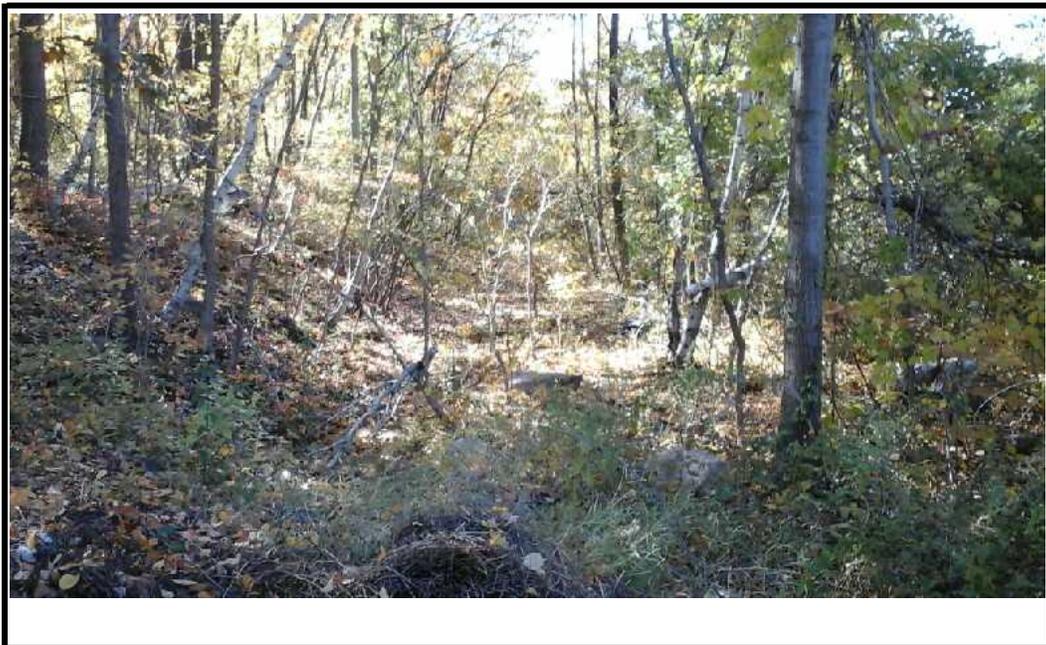


Photo 2: Notes
Dense vegetation

25 Site NFA Land Use Inspections

o Site 46 PICA-085 Former 90-Day Waste Accumulation Area
Site:

Site Photographs

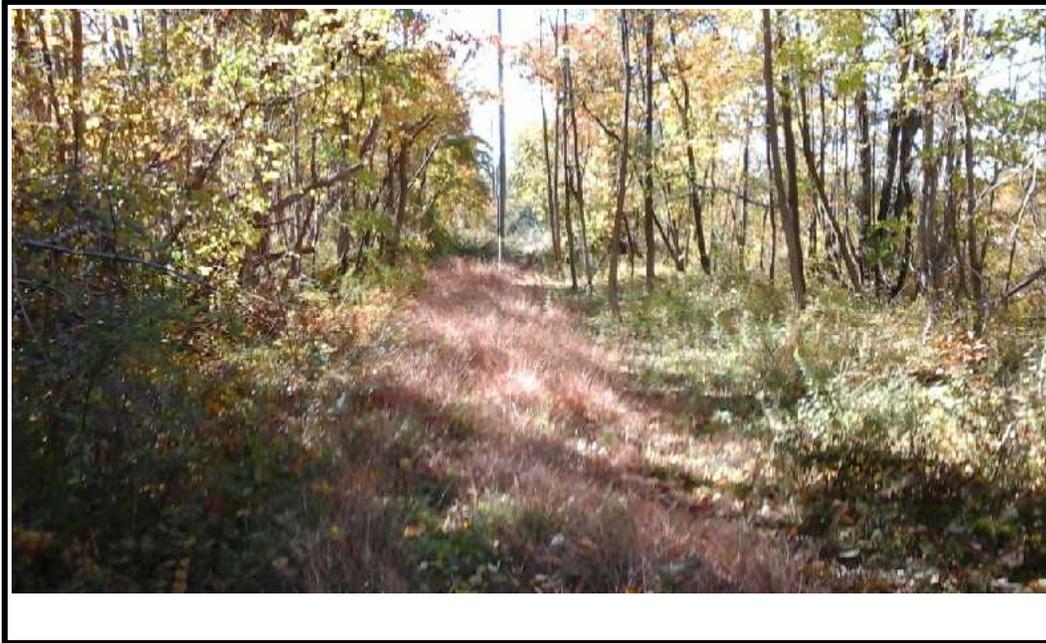


Photo 3: Notes

Wooded area adjacent to grass access road

.

25 Site NFA Land Use Inspections

Site: Site 50 PICA-022 Still House and Hazardous Waste Storage Tank (Former Build

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	9:18 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Site currently vacant. Buildings 527, 523, 519, 519a, and 521 have been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

Pour concrete walkways in front of B1408C, B1417, B1420 (Project # 5064).

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 50 PICA-022 Still House and Hazardous Waste Storage Area
Site:

Site Photographs

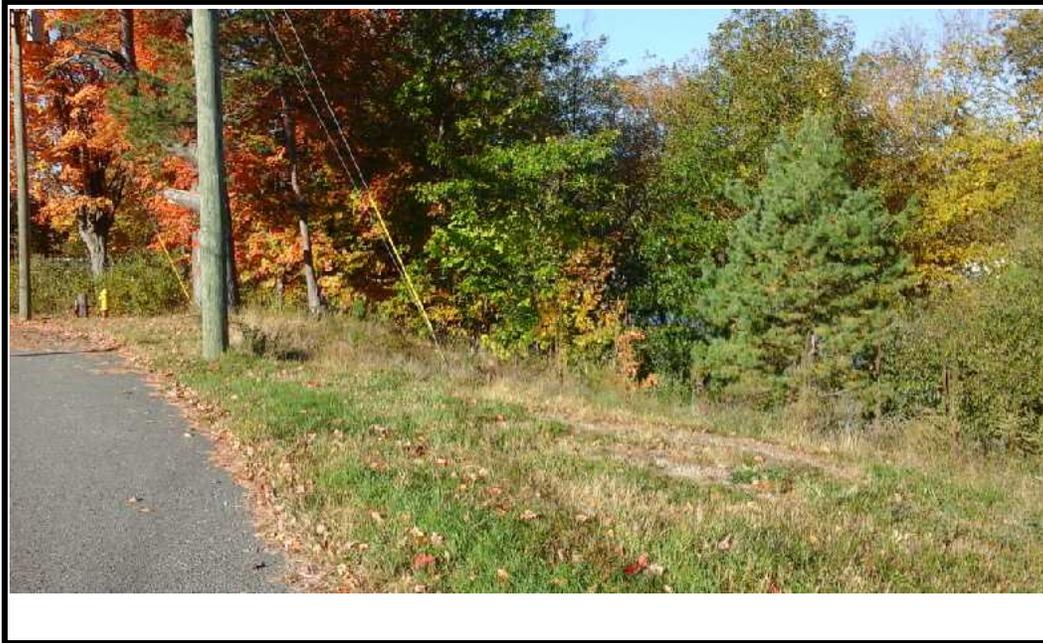


Photo 1: Notes

Location of former building, wooded area adjacent to access road.



Photo 2: Notes

Wooded area and grass field

25 Site NFA Land Use Inspections

Site: Site 63/65 PICA-047 Stream and Power Plant (Former Building 506)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	12:38 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Site is active. American Water office trailer located onsite.

Have there been any changes to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

Yes, American Water office now located in the gravel lot

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 63/65 PICA-047 Stream and Power Plant (Former Building 506)
Site:

Site Photographs



Photo 1: Notes
Gravel lot. Waste storage area in background.



Photo 2: Notes
Former location of building 506. American Water office trail now here.

25 Site NFA Land Use Inspections

Site: Site 91 PICA-163 Rocket Motor Assembly Area (Building 1301)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	2:29 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active area

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 91 PICA-163 Rocket Motor Assembly Area (Building 1301)
Site:

Site Photographs



Photo 1: Notes
Building 1307



Photo 2: Notes
Building 1307 on left and building 1301 on right

25 Site NFA Land Use Inspections

Site: Site 97 PICA-140 Post Engineering Maintenance Shop (Building 501)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	12:48 PM	John Vrabel	John Vrabel	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Site is active, vegetation to the north west of site. Buildings 439 and 506 have been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 97 PICA-140 Post Engineering Maintenance Shop (Building 501)
Site:

Site Photographs



Photo 1: Notes
Building 501

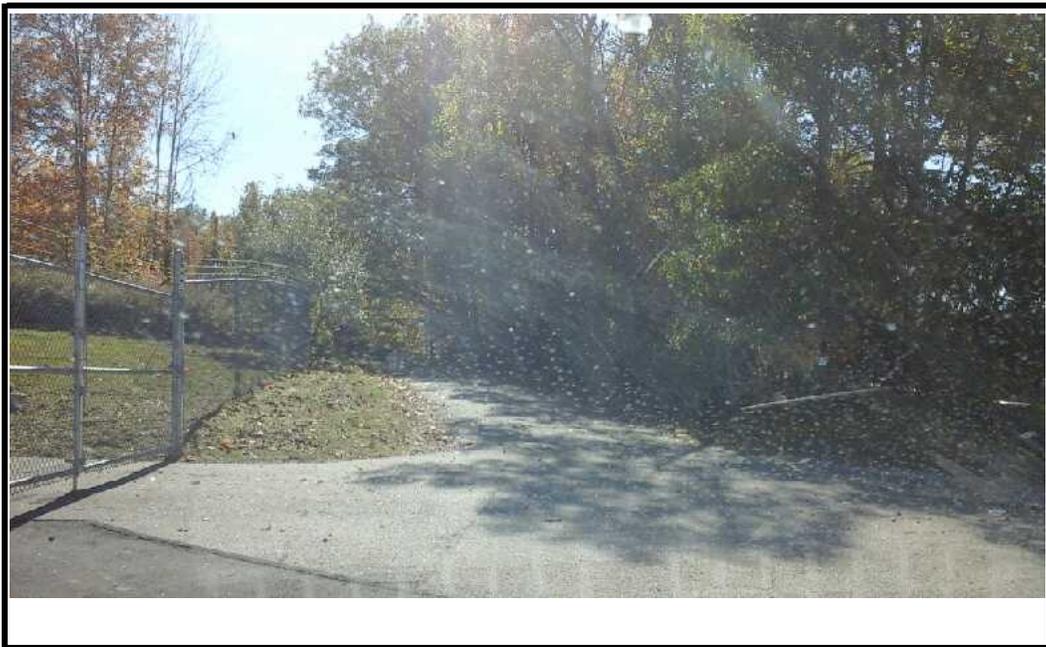


Photo 2: Notes
Asphalt access road

25 Site NFA Land Use Inspections

Site: Site 105 PICA-142 Propellant Plant (Former Building 511)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	12:54 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Densely vegetated. Building 510 is currently active.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

o□ Site 105 PICA-142 Propellant Plant (Former Building 511)
Site:

Site Photographs



Photo 1: Notes

Dense vegetation northeast of Bott rd.

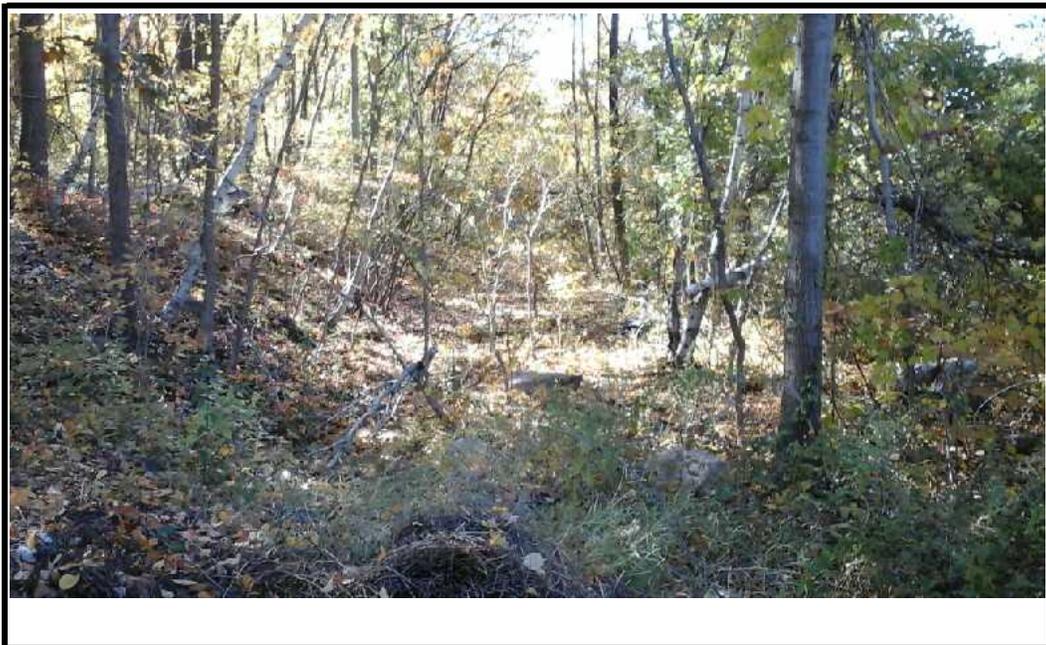


Photo 2: Notes

Dense vegetation northeast of Bott rd.

25 Site NFA Land Use Inspections

Site: Site 108 PICA-143 Ordinance Facilities and Flare Testing Laboratory

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	1:13 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active site, building 732 has been demolished.

There is a soil/rock pile located here. Area is inside the Robinson

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 108 PICA-143 Ordinance Facilities and Flare Testing Laboratory
Site:

Site Photographs



Photo 1: Notes
Former location of building 732.

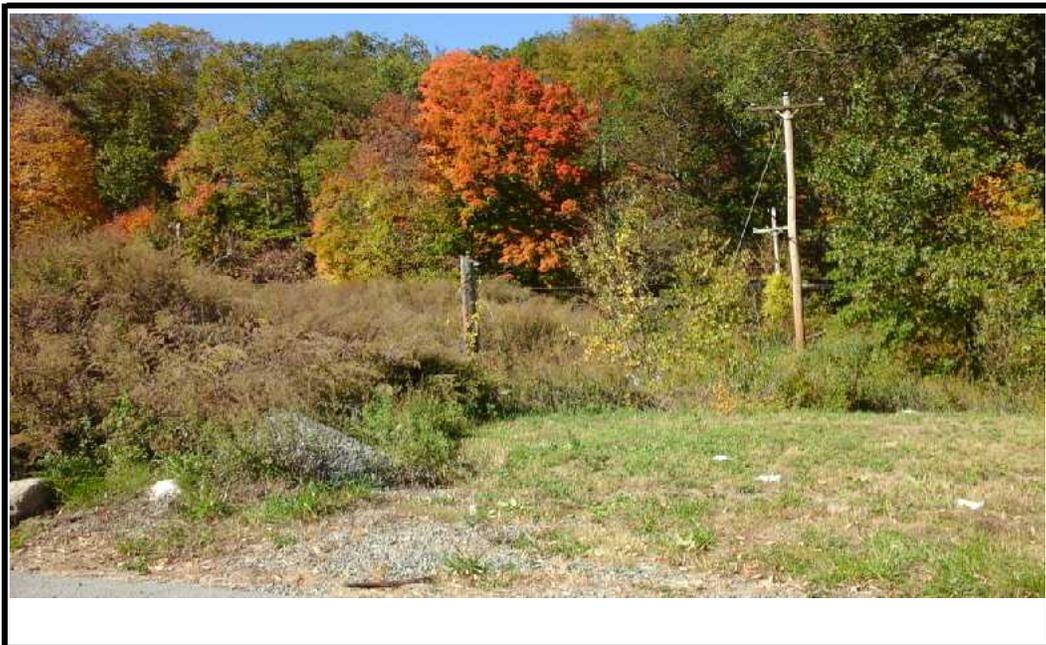


Photo 2: Notes
Former location of building 732.

25 Site NFA Land Use Inspections

o Site 108 PICA-143 Ordinance Facilities and Flare Testing Laboratory
Site:

Site Photographs

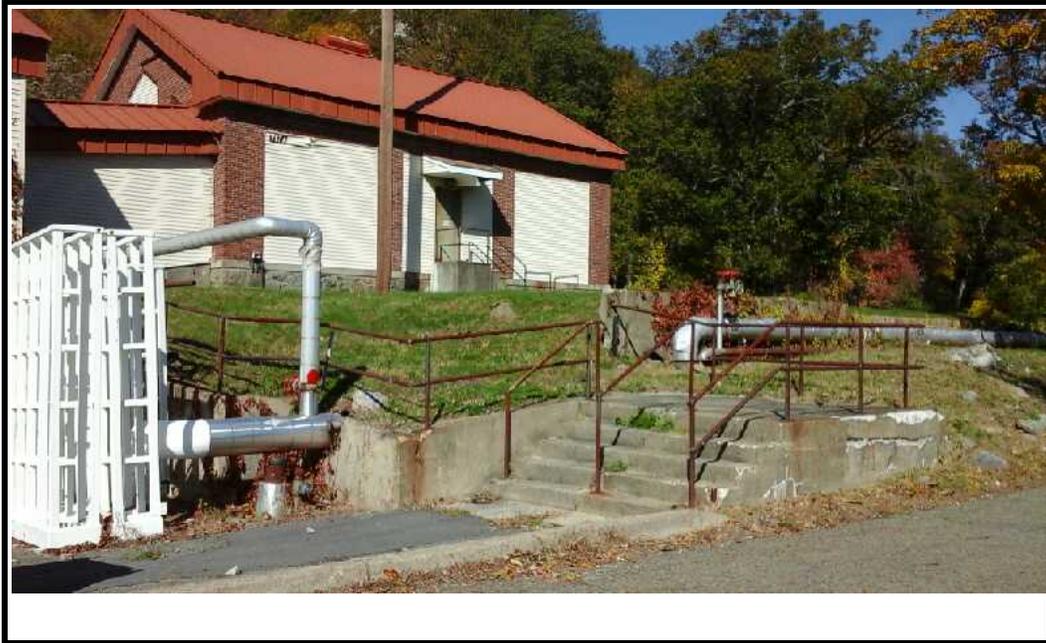


Photo 3: Notes
Building 717A



Photo 4: Notes
Building 717

25 Site NFA Land Use Inspections

Site: Site 147 PICA-064 Poach House (Former Building 520)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	9:33 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Buildings 520 and 520B have been demolished

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 147 PICA-064 Poach House (Former Building 520)

Site Photographs



Photo 1: Notes

Dense vegetation beyond the building. former location of buildings 520 and 520B

25 Site NFA Land Use Inspections

Site: Site 148 PICA-148 Nitrocellulose Production Facility (Former Building 527)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	9:48 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

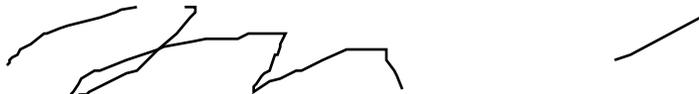
Site 148 currently has no activity. Dense vegetation to the north west.

Building 527 and 525 and 523 have been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 148 PICA-148 Nitrocellulose Production Facility (Former Building 527)
Site:

Site Photographs



Photo 1: Notes
Former location of building 527



Photo 2: Notes
Former location of building 527

25 Site NFA Land Use Inspections

Site: Site 150 PICA-150 Propellant Plant (Former Building 555)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	8:35 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Currently not active. Densely vegetated. Buildings 555 and 540 have been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 150 PICA-150 Propellant Plant (Former Building 555)
Site:

Site Photographs

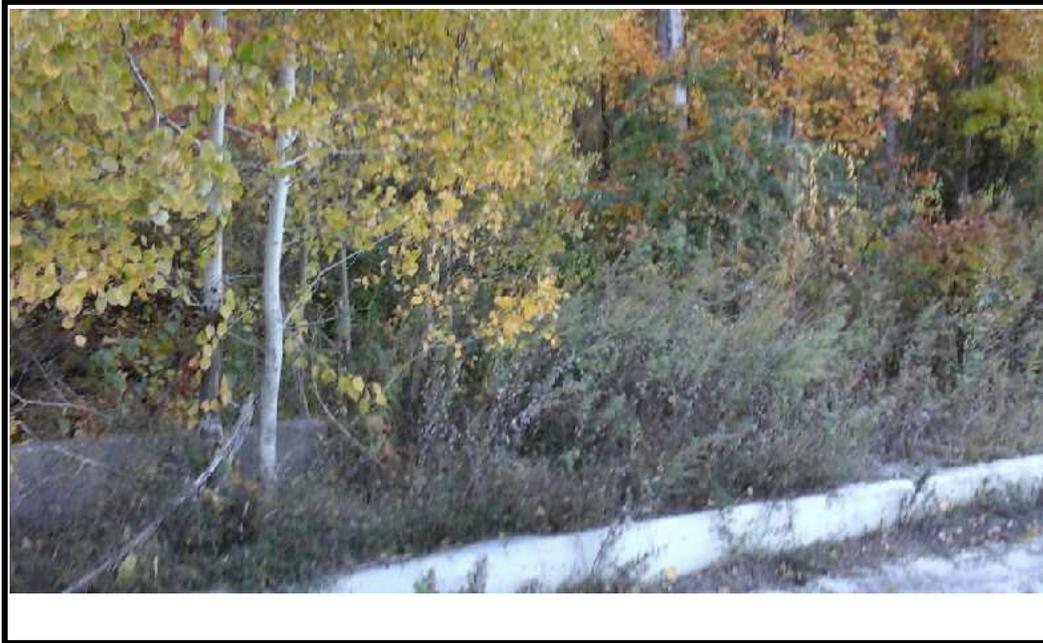


Photo 1: Notes

Dense vegetation and remaining concrete associated with building 555



Photo 2: Notes

Former location of building 555 from 21st avenue

25 Site NFA Land Use Inspections

Site: Site 161 PICA-172 Nitration Building (Former Building 1031)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/14/2015	1:28 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Site 161 is not active. Surrounding are densely vegetated

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 161 PICA-172 Nitration Building (Former Building 10)

Site Photographs



Photo 1: Notes
Former location of building 1031



Photo 2: Notes
Former location of building 1031 with ell in the background

25 Site NFA Land Use Inspections

Site: Site 162 PICA-173 Buildings 1070, 1071 and 1071C

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/14/2015	1:01 PM	John Vrabel	Sovereign	

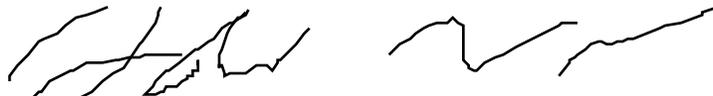
Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Densely vegetated with no current use

Have there been any changes to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 162 PICA-173 Buildings 1070, 1071 and 1071C

Site Photographs



Photo 1: Notes
Asphalt road surrounded by dense vegetation



Photo 2: Notes
Remaining concrete associated with former structure

25 Site NFA Land Use Inspections

Site: Site 166 PICA-174 Storage Magazines (Buildings 1354, 1357 and 1359)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/15/2015	9:27 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Buildings have been demolished. Site densely vegetated. Site is currently under construction.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

Currently under constuction. Refer to photos. Two excavators present.

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 166 PICA-174 Storage Magazines
Site:

Site Photographs



Photo 1: Notes

Remaining concrete path along former location of buildings 1350, 1354, 1357, and 1359



Photo 2: Notes

Construction activity near by.

25 Site NFA Land Use Inspections

Site: □ Site 166 PICA-174 Storage Magazines (Buildings 1354,

Site Photographs



Photo 3: Notes

Construction activity near by.



Photo 4: Notes

Construction activity near by.

25 Site NFA Land Use Inspections

Site: Site 168 PICA-168 (Former Buildings 1400, 1402 and 1403)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	2:15 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active testing and development area. Building 1400 has been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 168 PICA-168 (Former Buildings 1400, 1402 and 14

Site Photographs



Photo 1: Notes

Building 1403 with dense vegetation to the east



Photo 2: Notes

Parking lot associated with building 1403, building 1407 in background.

25 Site NFA Land Use Inspections

Site: Site 168 PICA-168 (Former Buildings 1400, 1402 and 14

Site Photographs

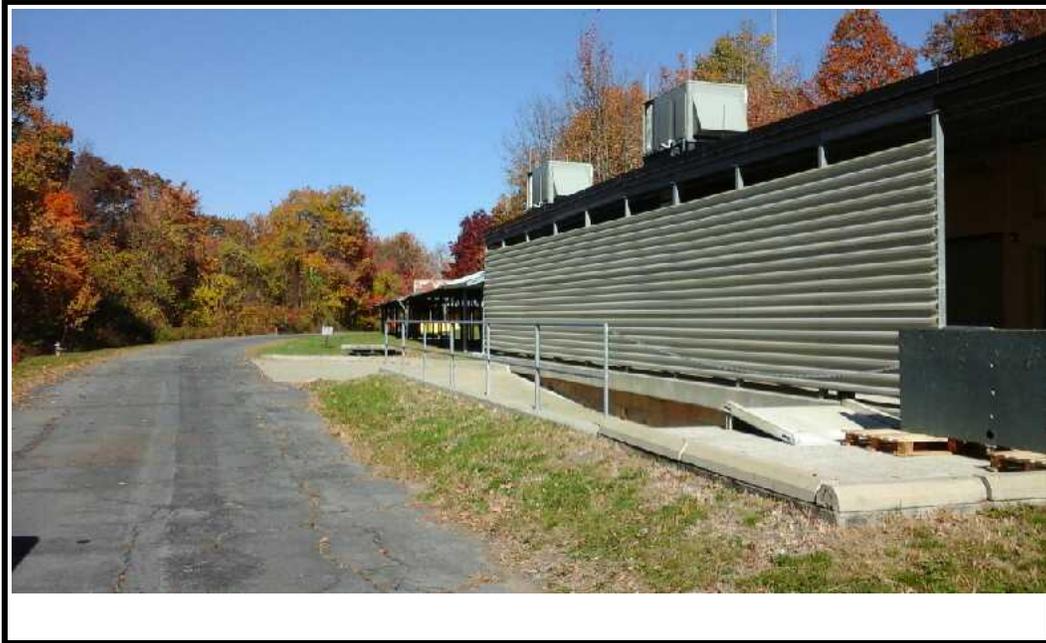


Photo 3: Notes

Building 1406 looking north down Spicer ave



Photo 4: Notes

Building 1406 parking lot

25 Site NFA Land Use Inspections

Site: Site 169 PICA-169 Propellant Plants (Buildings 1408, 1408A to C, 1409 and 14

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	2:22 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active area. Building 1409 has been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 169 PICA-169 Propellant Plants (Buildings 1408, 14

Site Photographs



Photo 1: Notes
Building 1411B surrounded by dense vegetation



Photo 2: Notes
Portions of building 1411 along Spicer ave

25 Site NFA Land Use Inspections

Site: Site 171 PICA-171 Ordinance Facilities (Buildings 3106, 3109 and 3111)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/14/2015	12:43 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Yes. Active test and development area.

Have there been any changes to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

B-3114 brush and tree cutting/trimming maintenance. Project number 3674.

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 171 PICA-171 Ordinance Facilities (Buildings 3106,

Site Photographs



Photo 1: Notes
Building 3111 with asphalt access road and dense vegetation



Photo 2: Notes
Building 3109 and secure storage area

25 Site NFA Land Use Inspections

Site: Site 171 PICA-171 Ordinance Facilities (Buildings 3106,

Site Photographs



Photo 3: Notes
Access road to building 309

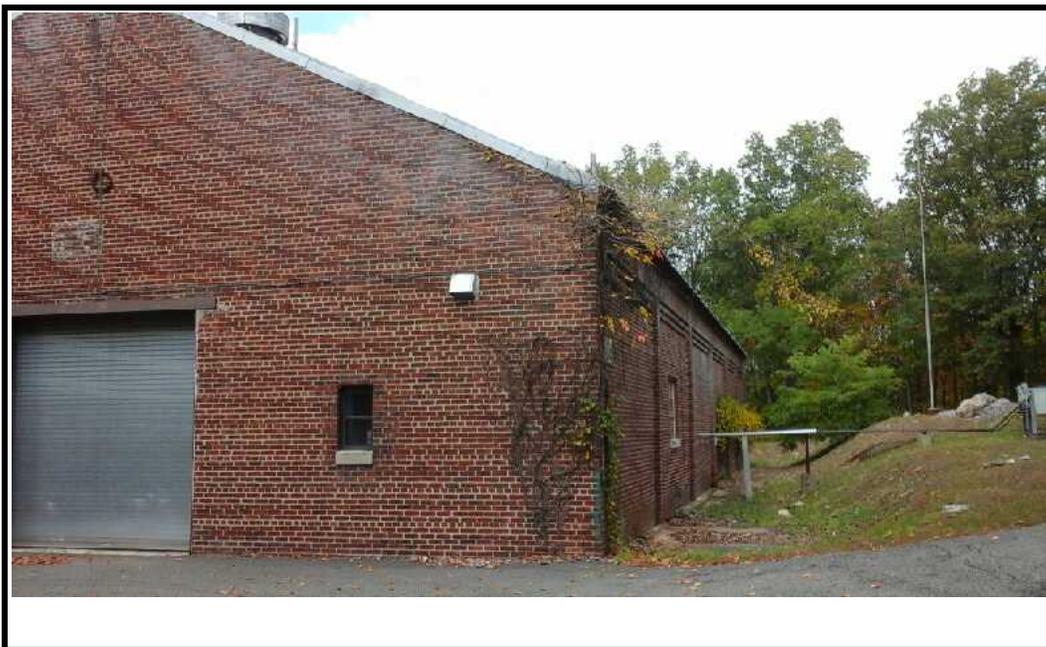


Photo 4: Notes
Building 1306 and surrounding vegetation

25 Site NFA Land Use Inspections

Site: Site 184 PICA-056 Refrigeration and Inert Gas Plant (Former Building 523)

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	9:26 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Building 526 is an active Pyro building. Buildings 523, 519, and 521 have been demolished.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

o Site 184 PICA-056 Refrigeration and Inert Gas Plant
Site:

Site Photographs



Photo 1: Notes
Former location of building 523

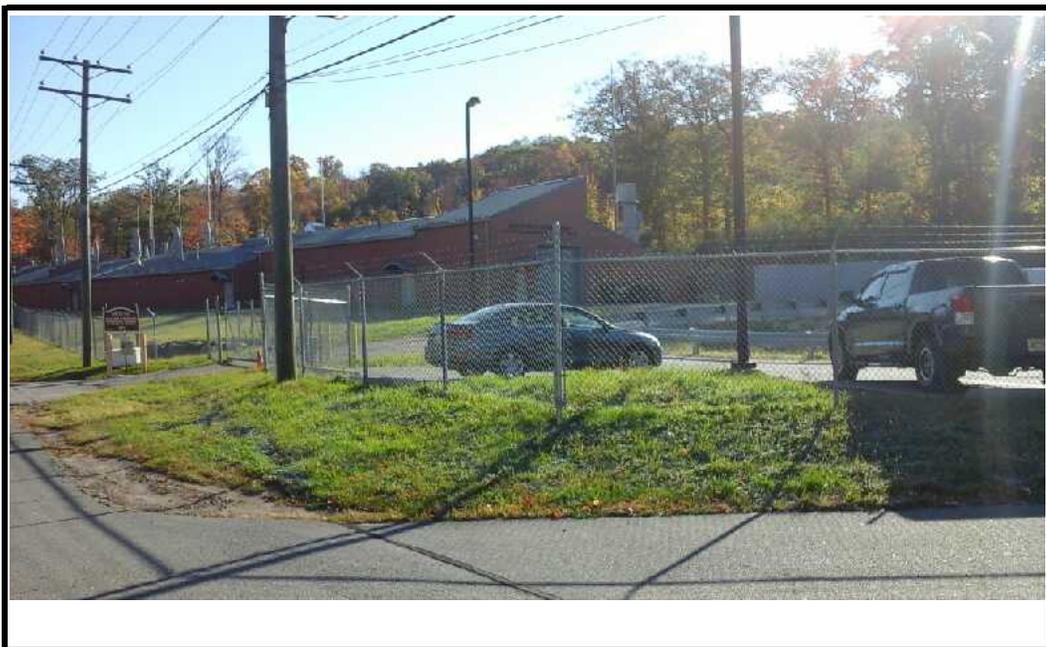


Photo 2: Notes
Newly constructed pyrotechnics research and technology complex. Building 526

25 Site NFA Land Use Inspections

Site: Site 189 PICA-192, Apple Tree Recreation Area

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/14/2015	2:02 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Area is between the orchard and the tennis courts. There is an active pump house located here.

Have there been any changes to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

Remove road behind quarters 102 (project # 4716).

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 189 PICA-192, Apple Tree Recreation Area

Site Photographs



Photo 1: Notes

Surface condition; no indication of intrusive activities or change to land use



Photo 2: Notes

Building 134 and adjacent orchard

25 Site NFA Land Use Inspections

Site: Site 189 PICA-192, Apple Tree Recreation Area

Site Photographs



Photo 3: Notes
Surface condition direction toward Farley Avenue



Photo 4: Notes
Surface condition, orchard trees

25 Site NFA Land Use Inspections

Site: Site 199 PICA-199 Abandoned Pistol Range and Former Manure Dumping Area

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	2:08 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Densely vegetated area. Not active.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



25 Site NFA Land Use Inspections

Site: Site 199 PICA-199 Abandoned Pistol Range and Former Manure Dumping Area

Site Photographs



Photo 1: Notes
Densely vegetated area

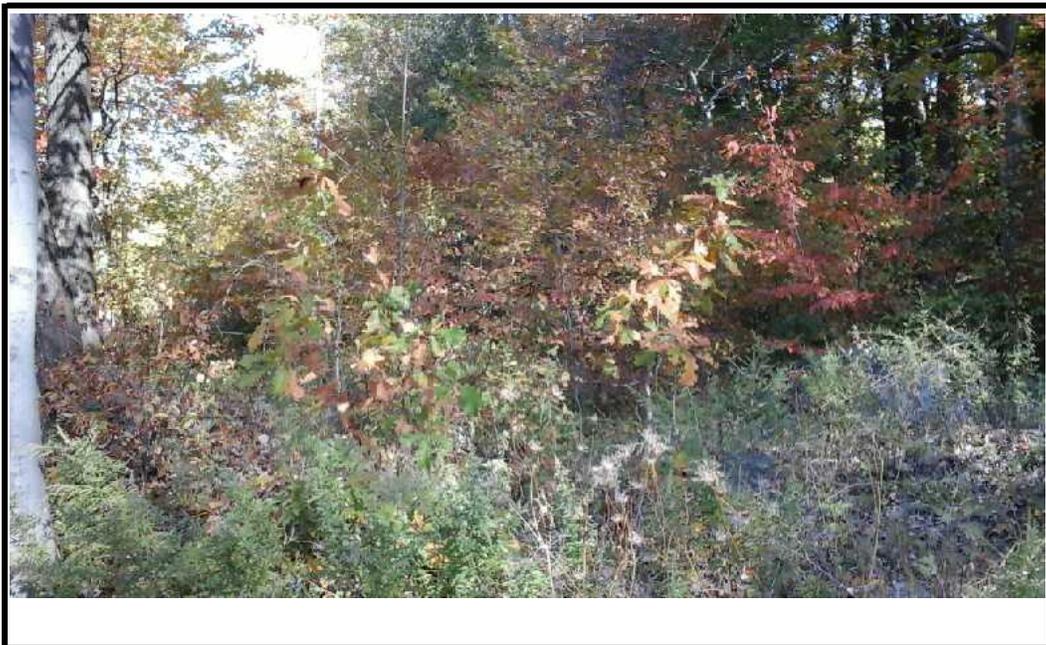


Photo 2: Notes
Densely vegetated area

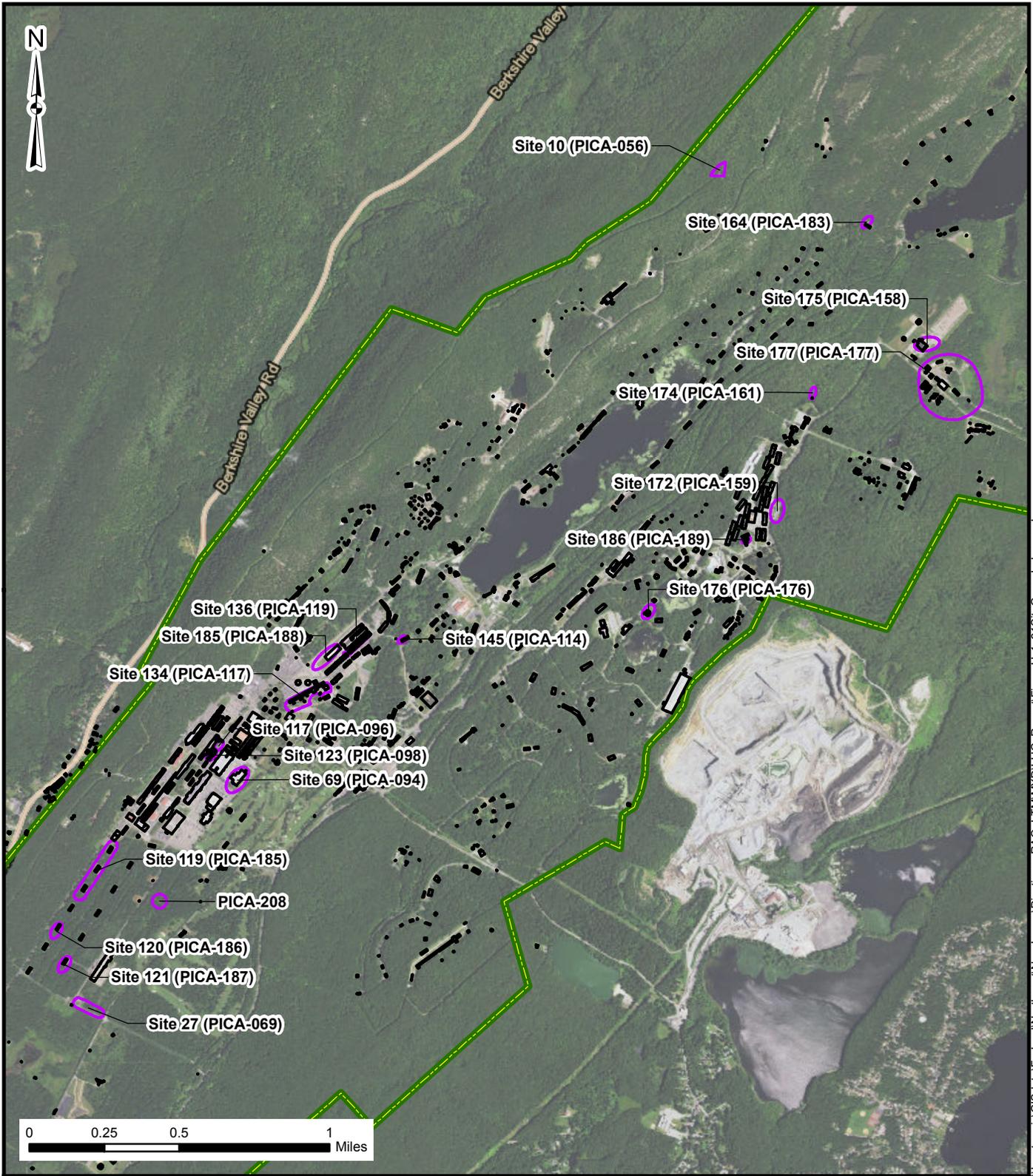
Appendix U

21 NFA Sites, Site Figures*
21 NFA Sites, Site Photographs*
21 NFA Sites, Inspection Form*

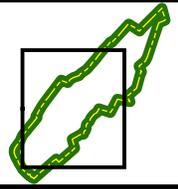
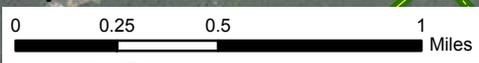
***NOTE: Includes**

Site 69 (PICA-094), Site 117 (PICA-096), Site 123 (PICA-098), Site 60 (PICA-101), Site 145 (PICA-114), Site 134 (PICA-117), Site 136 (PICA-119), Site 185 (PICA-188), Site 175 (PICA-158), Site 172 (PICA-159), Site 174 (PICA-161), Site 186 (PICA-89), Site 176 (PICA-176), Site 177 (PICA-177), Site 10 (PICA-056), Site 164 (PICA-183), Site 27 (PICA-69), Site 119 (PICA-185), Site 120 (PICA-186), Site 121 (PICA-187), and PICA Site 208

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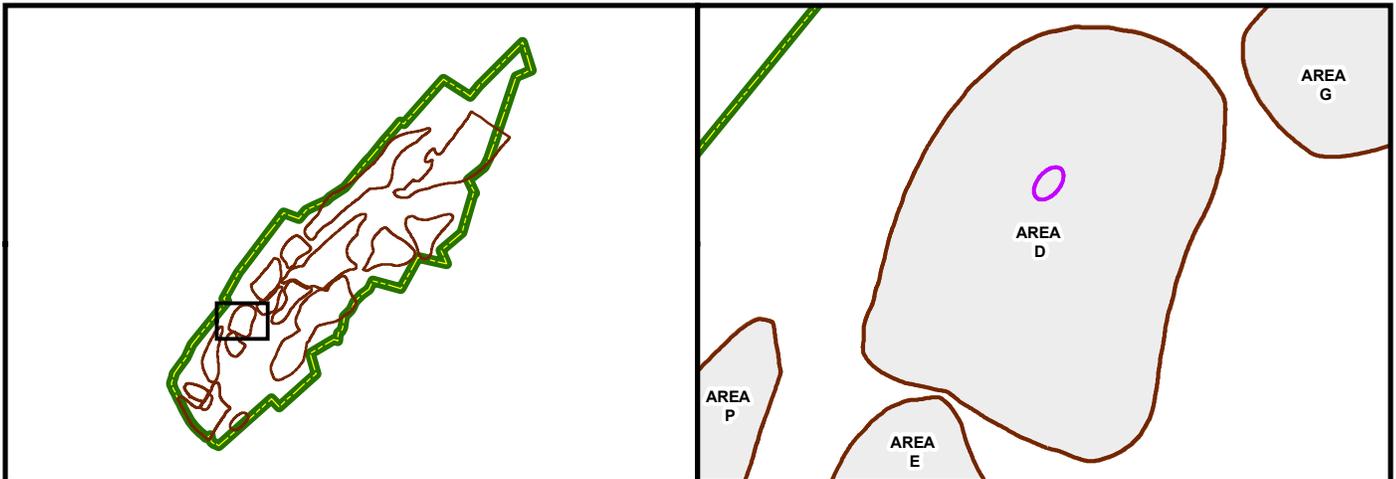


- Legend**
- Installation Boundary
 - Approximate Site Location
 - Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-1
21 Site Group Index Map



\\ovetorgis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXXDLUC_Report\FigureSet_A.mxd

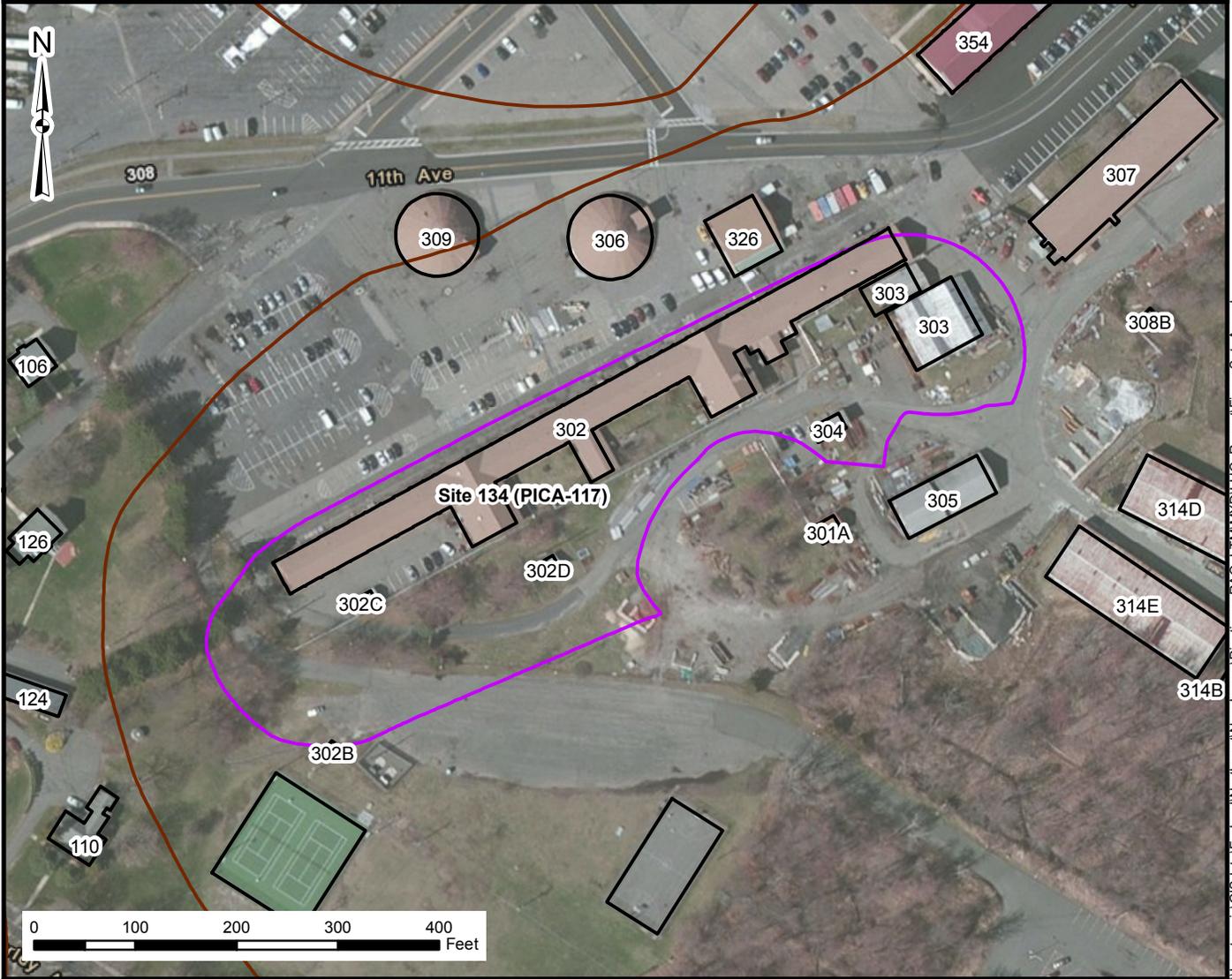
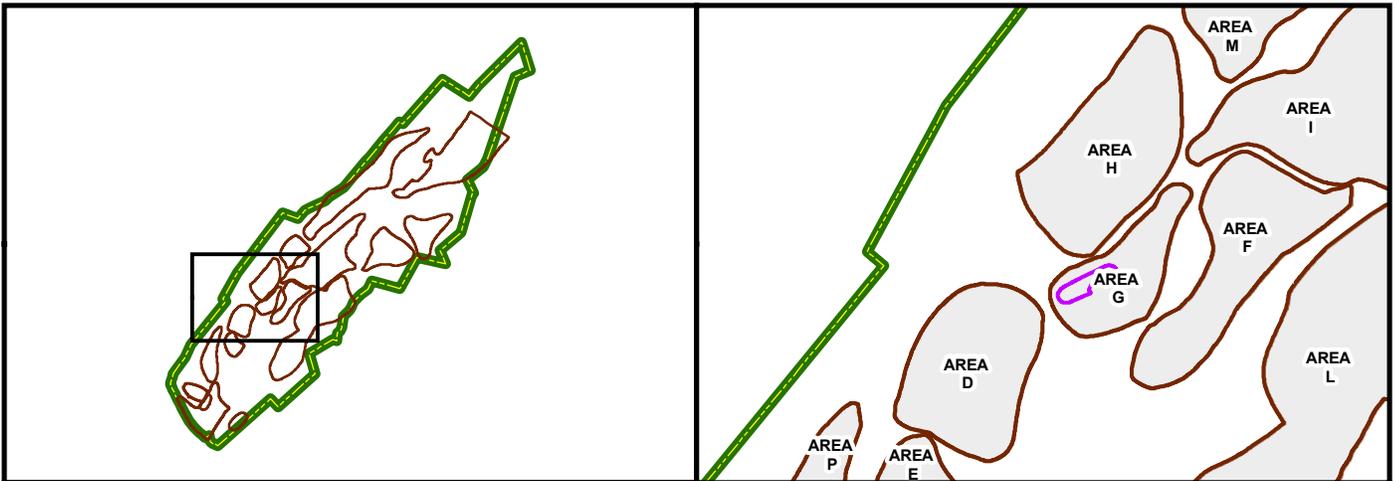
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-2
Site 117 (PICA-096)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\MMXD\LUC_Report\FigureSet_A.mxd

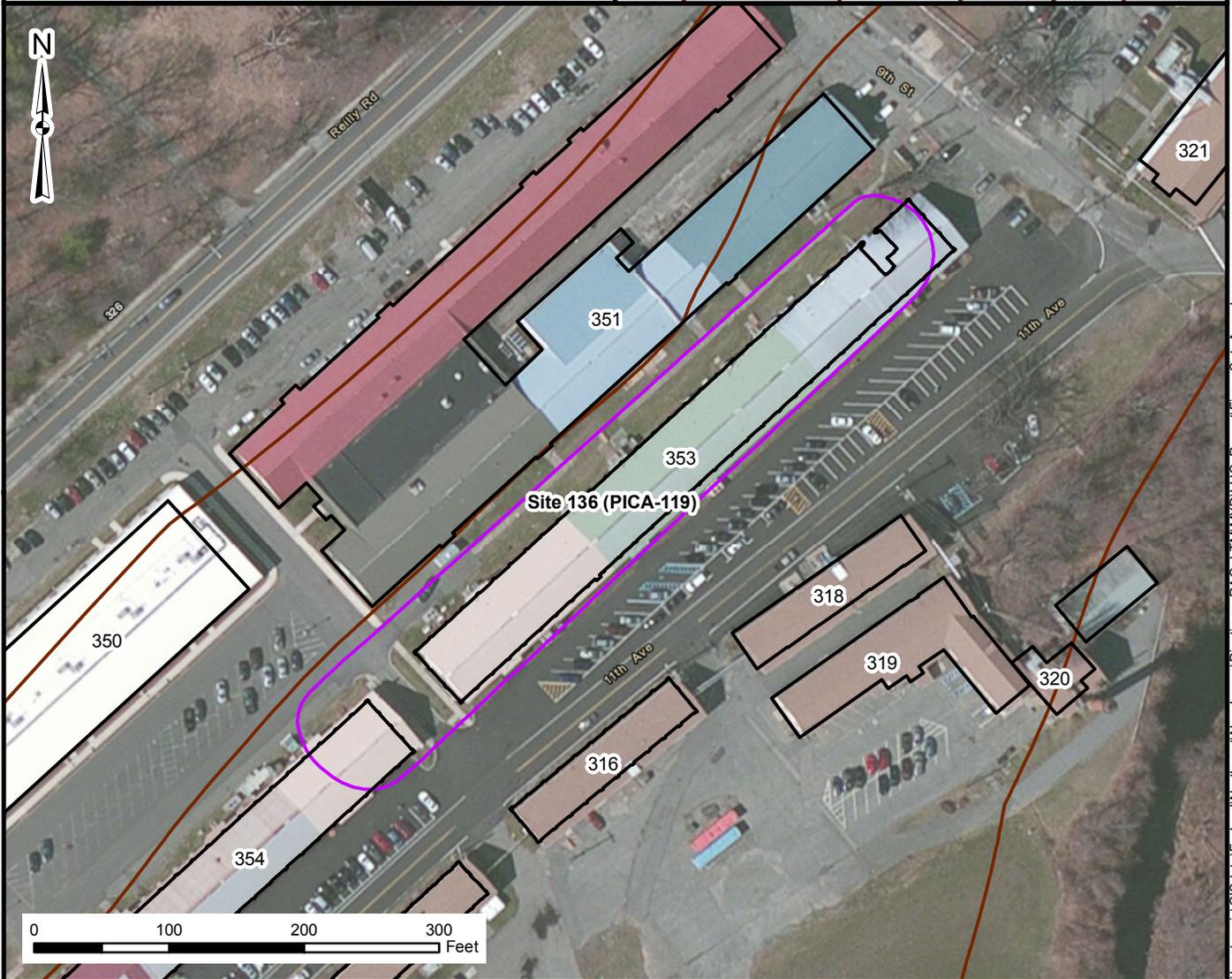
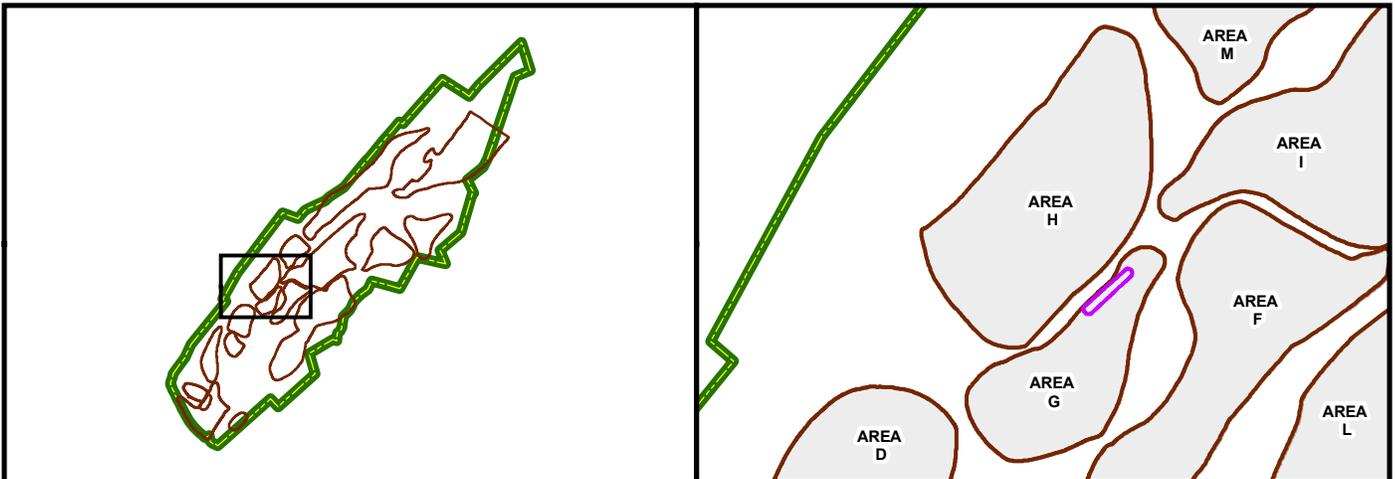
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-3
Site 134 (PICA-117)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd

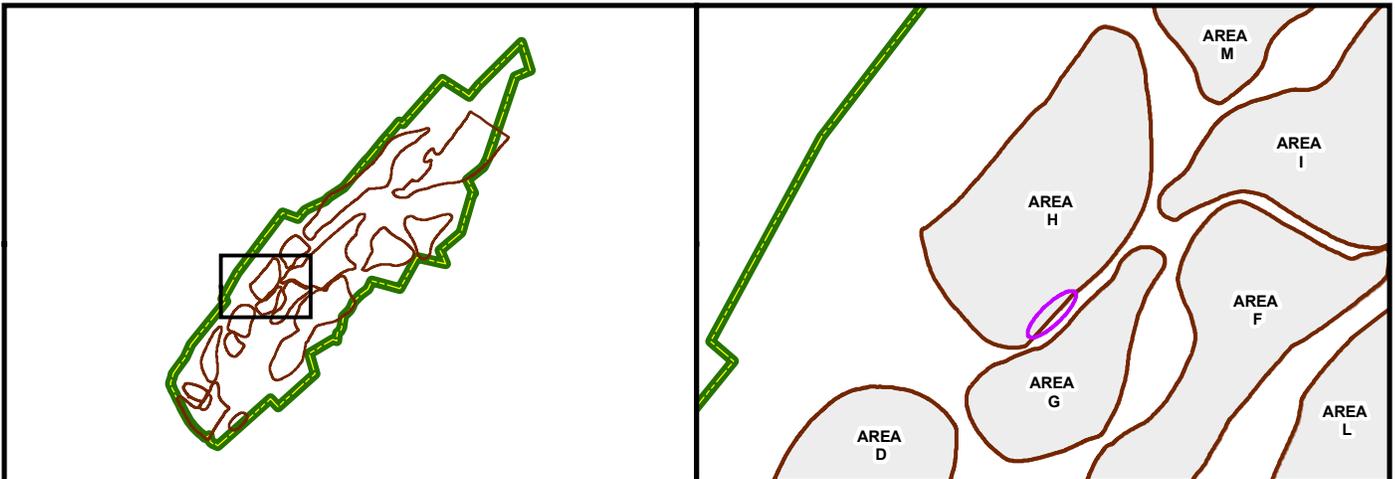
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-4
Site 136 (PICA-119)



Legend

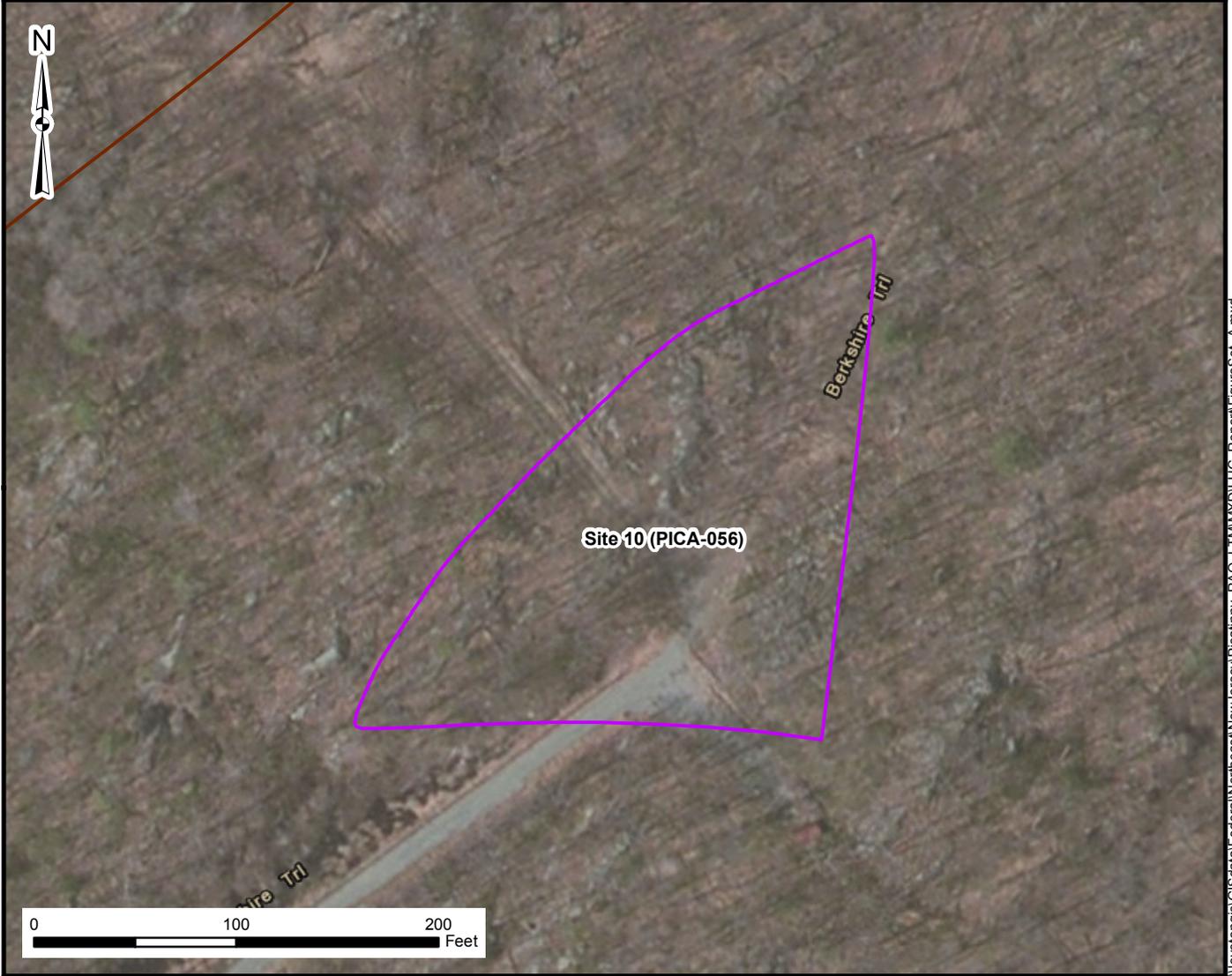
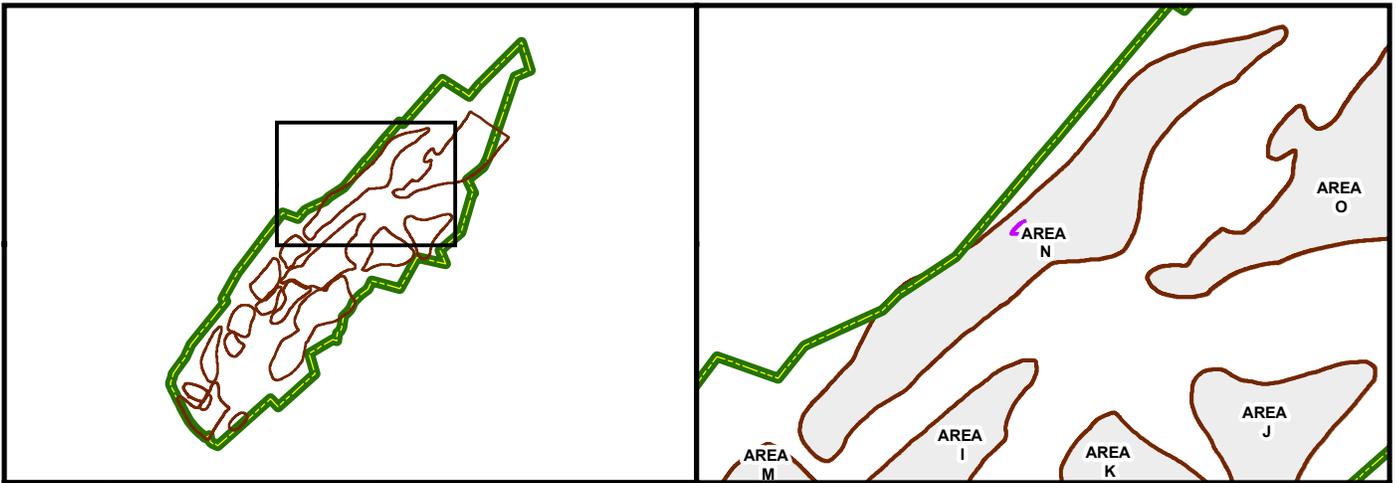
-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-5
Site 185 (PICA-188)

\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd



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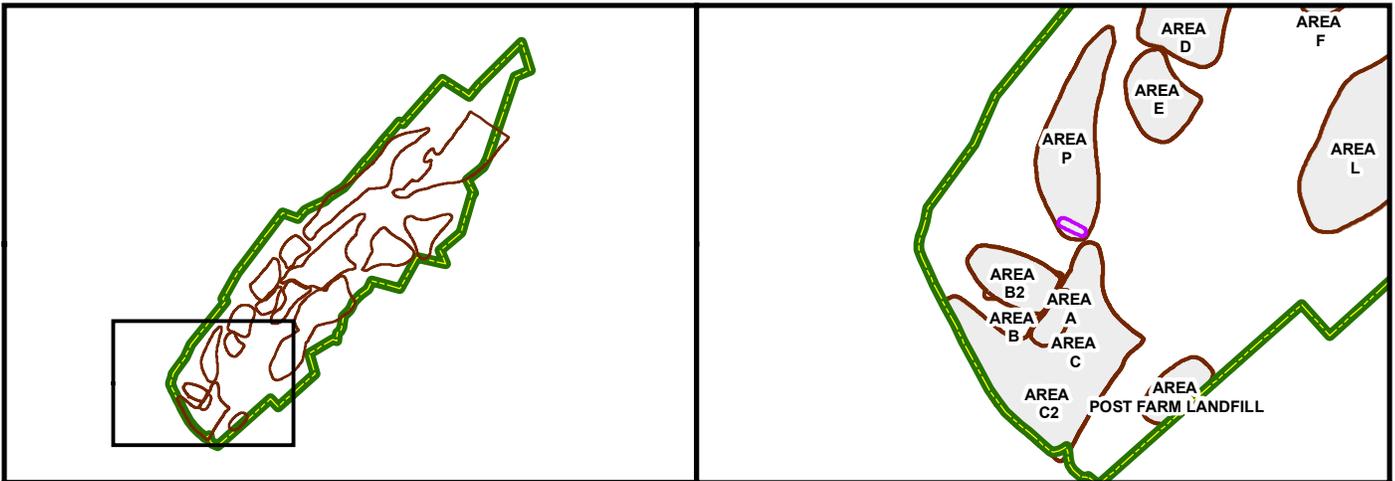
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-6
Site 10 (PICA-056)



\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_L\TMMXD\LUC_Report\FigureSet_A.mxd

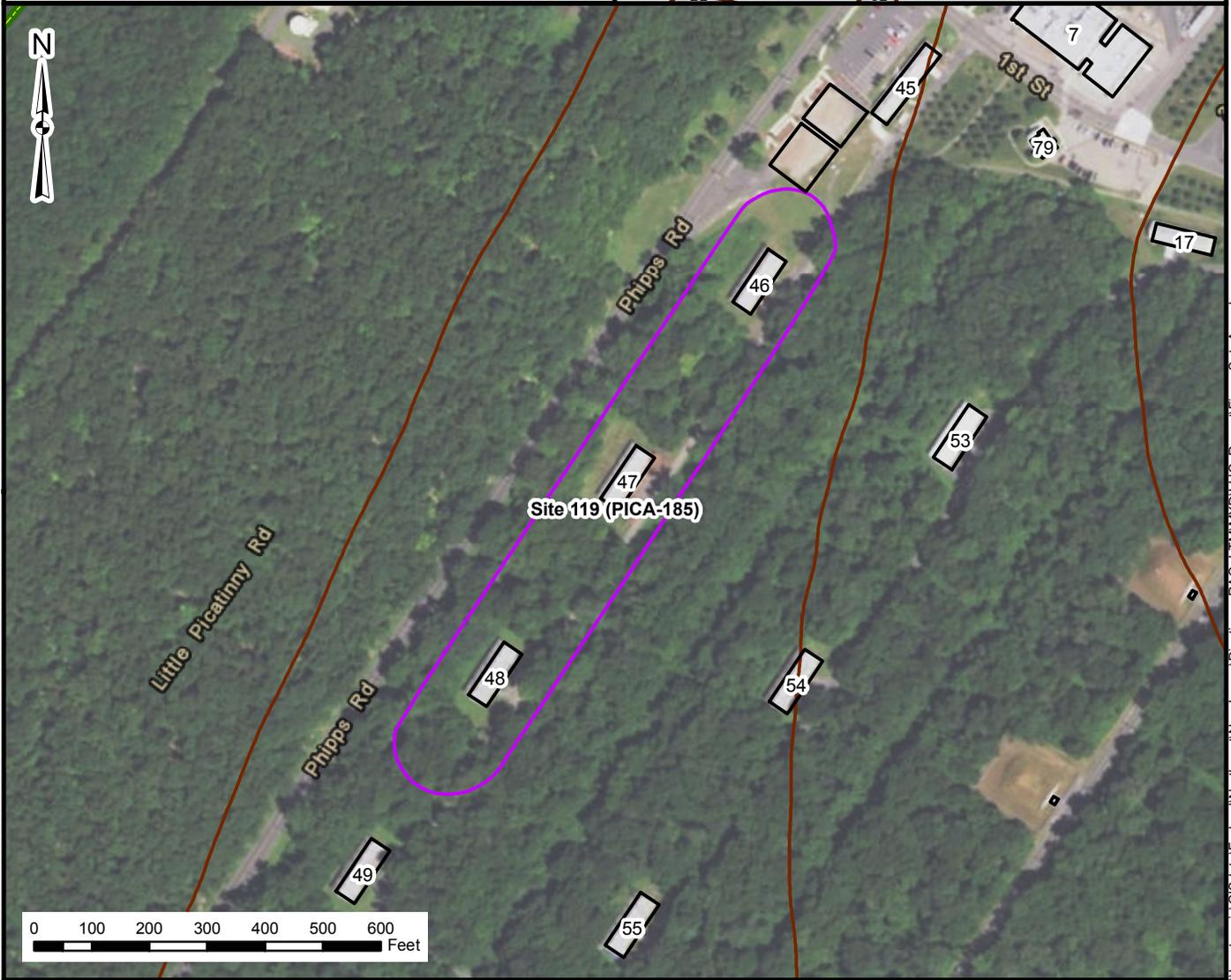
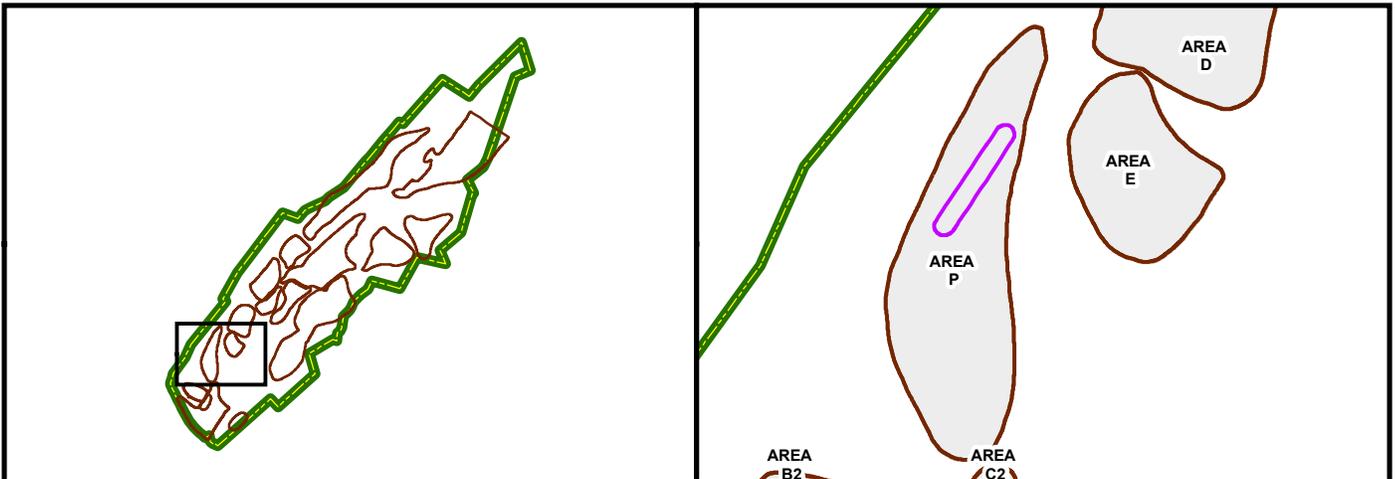
Legend

- Installation Boundary
- Area Boundary
- Approximate Site Location
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-7
Site 27 (PICA-069)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picaatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd

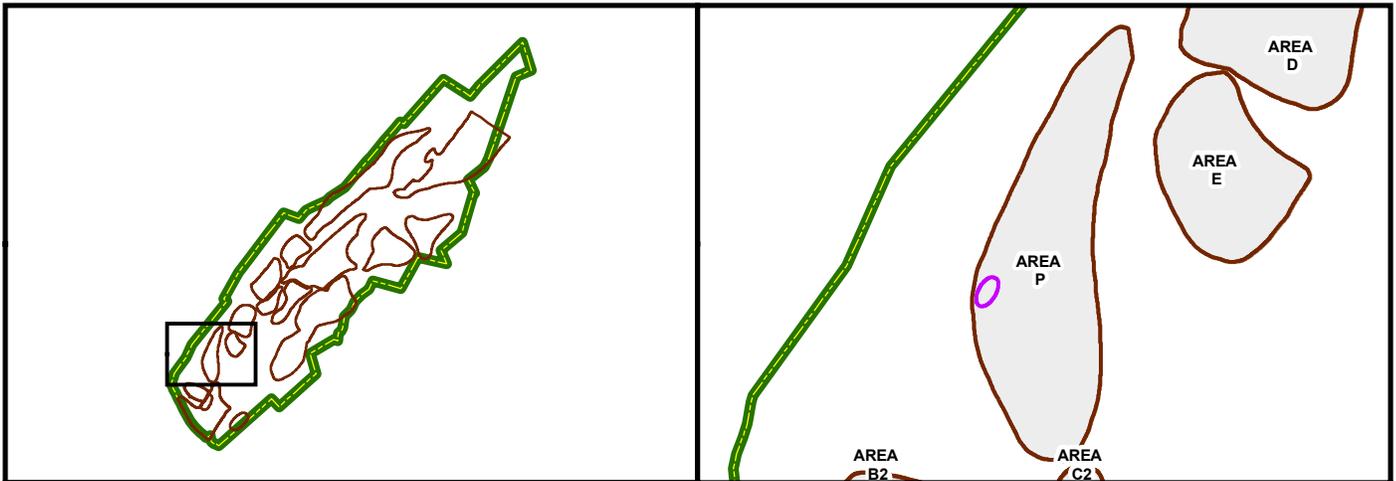
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-8
Site 119 (PICA-185)



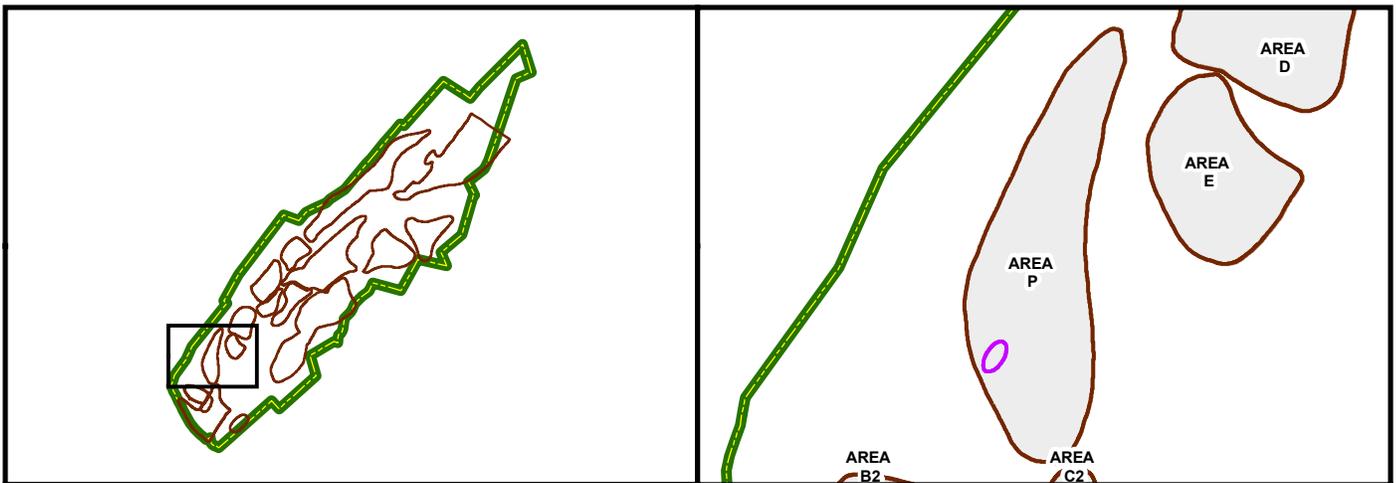
Legend

- Installation Boundary
- Area Boundary
- Approximate Site Location
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-9
Site 120 (PICA-186)



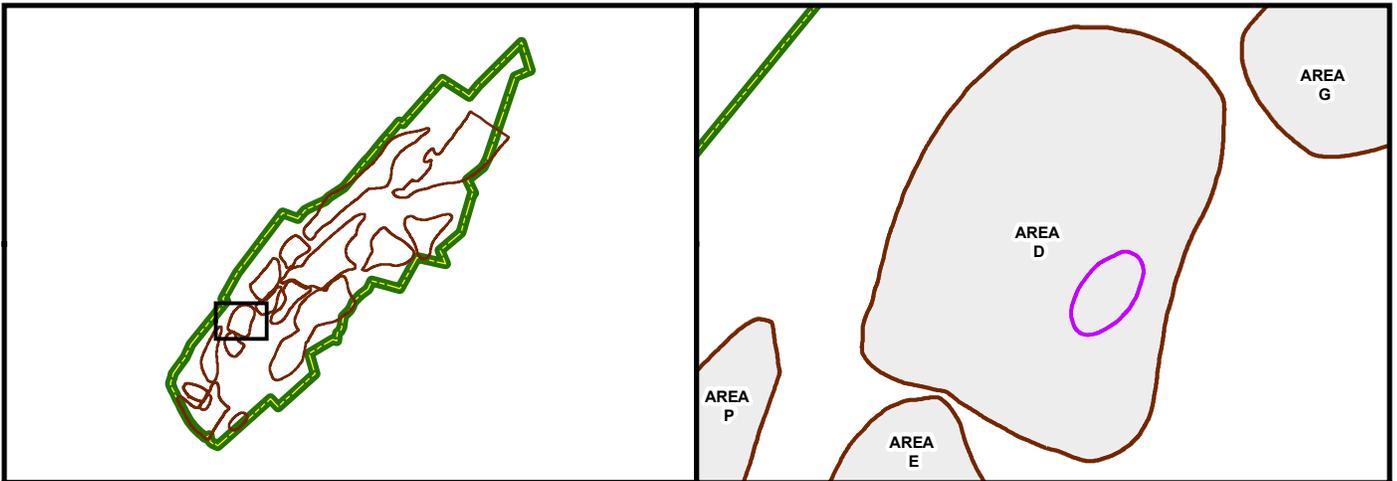
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-10
Site 121 (PICA-187)



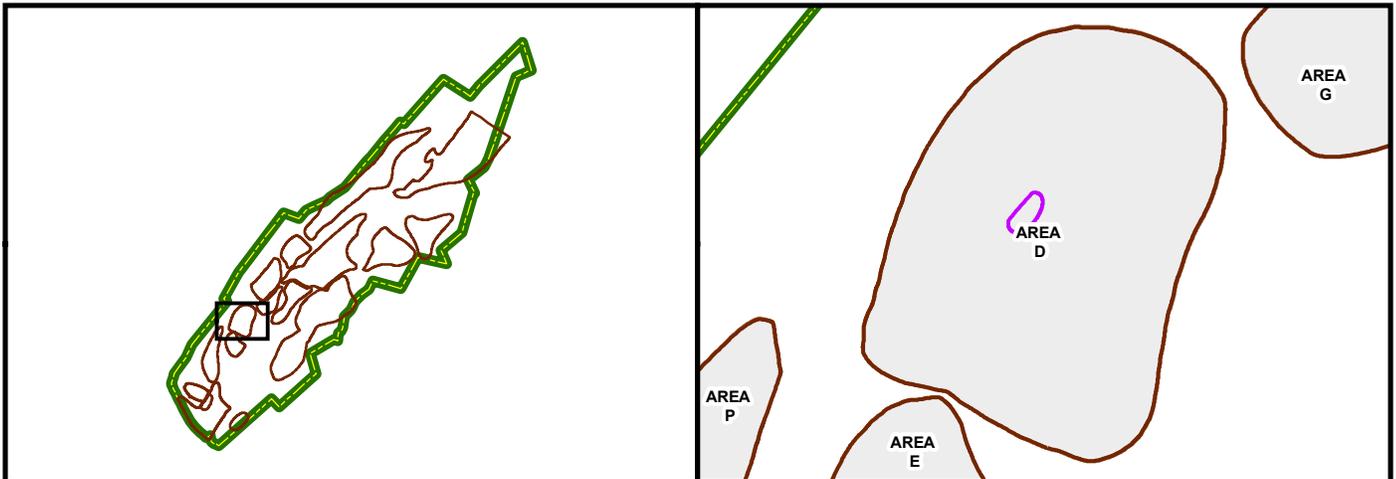
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-11
Site 69 (PICA-094)



Legend

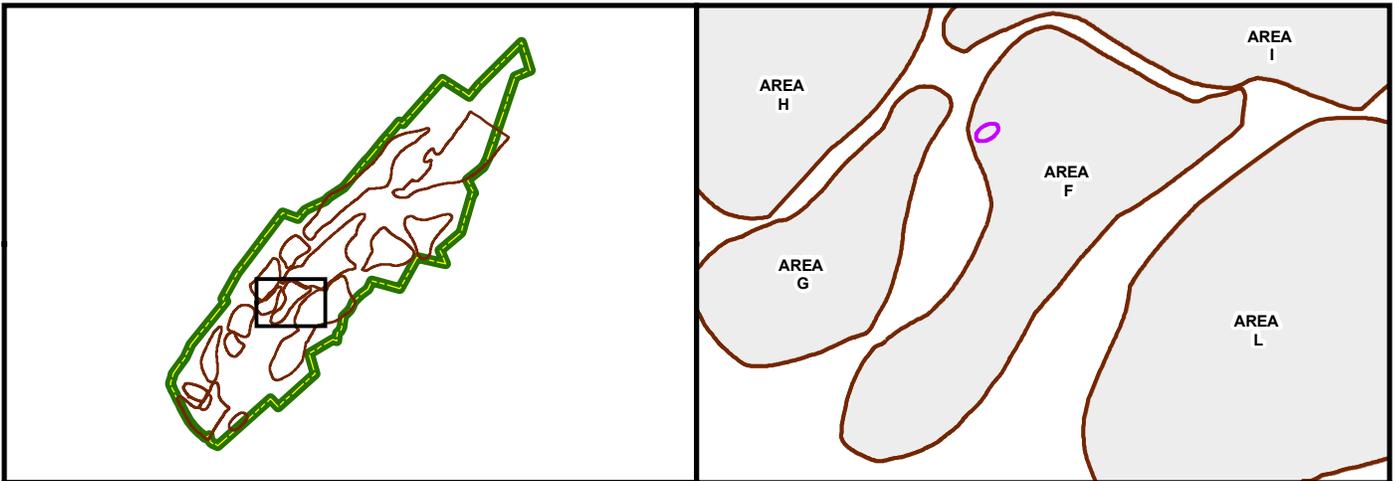
- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-12
Site 123 (PICA-098)

\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd



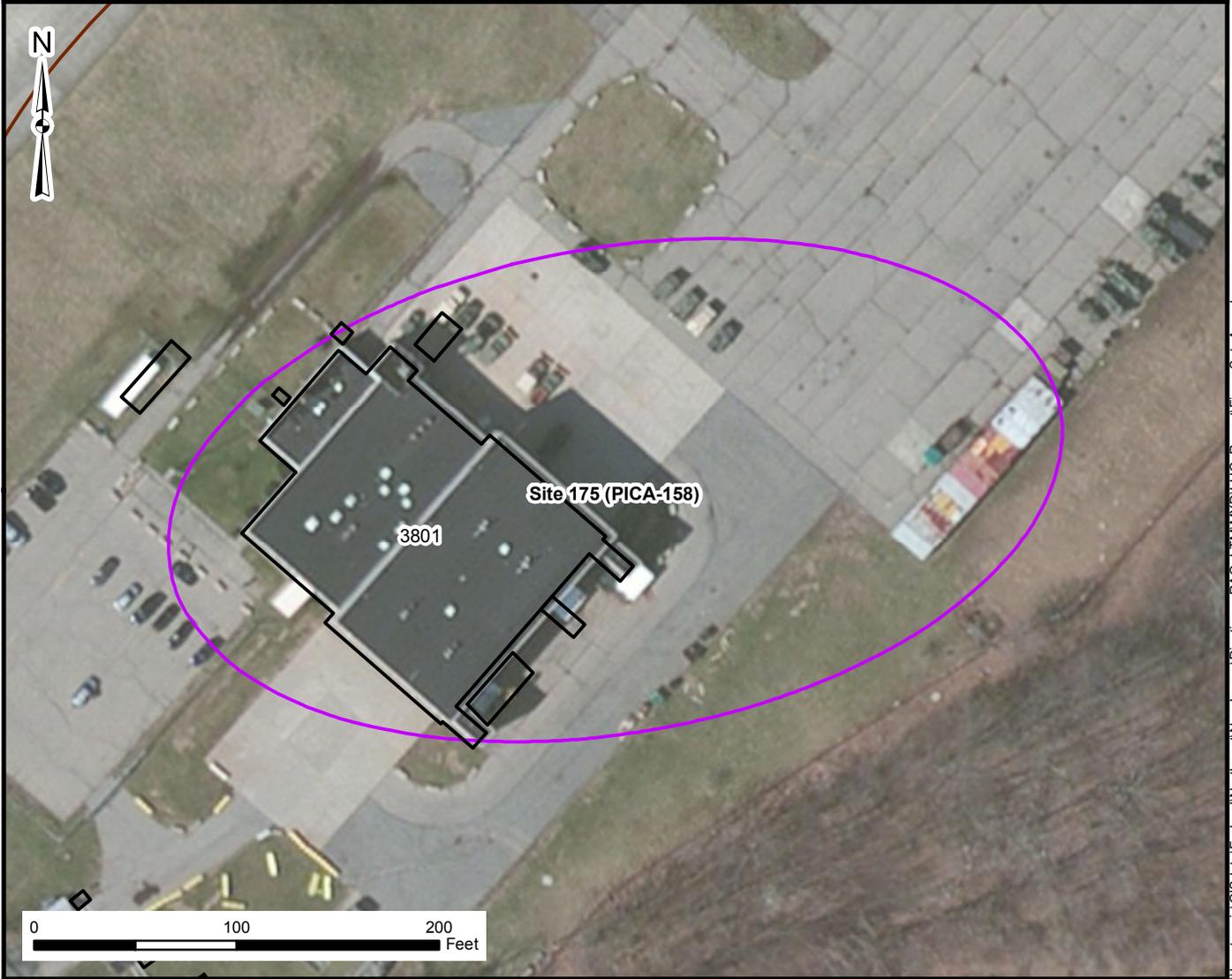
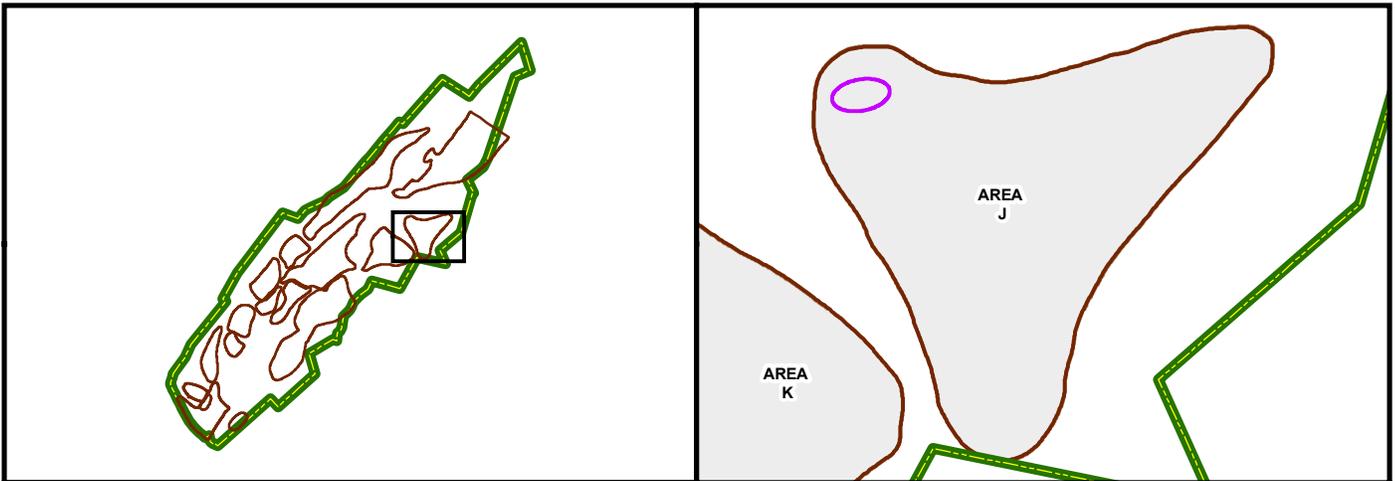
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-13
Site 145 (PICA-114)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatiny_RAO_L1\TMXDILUC_Report\FigureSet_A.mxd

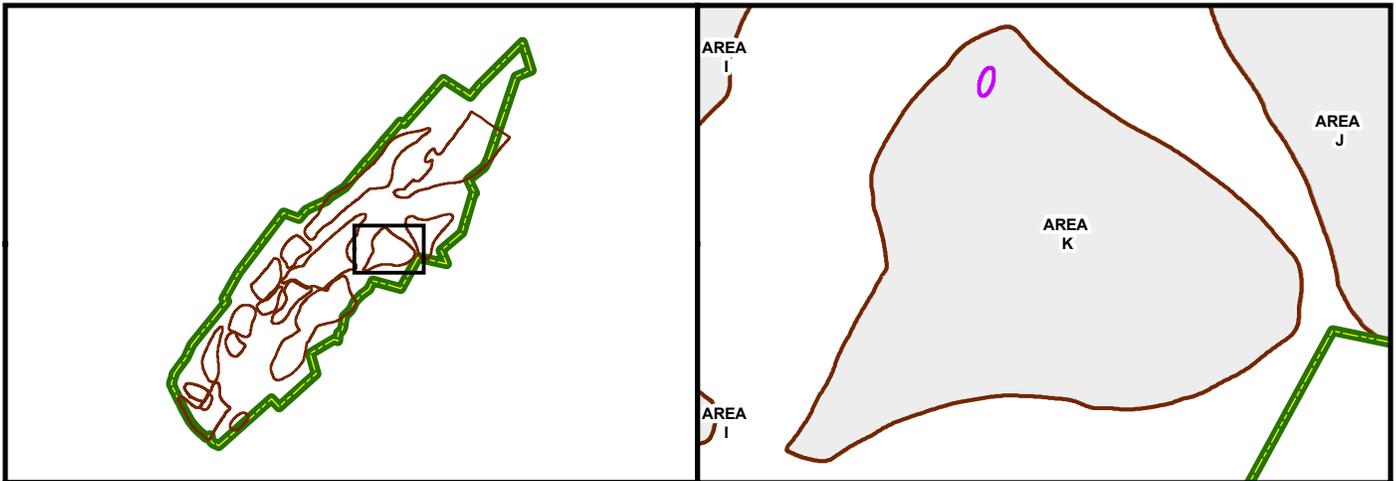
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-14
Site 175 (PICA-158)



\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_L1\TMXXD\LUC_Report\FigureSet_A.mxd

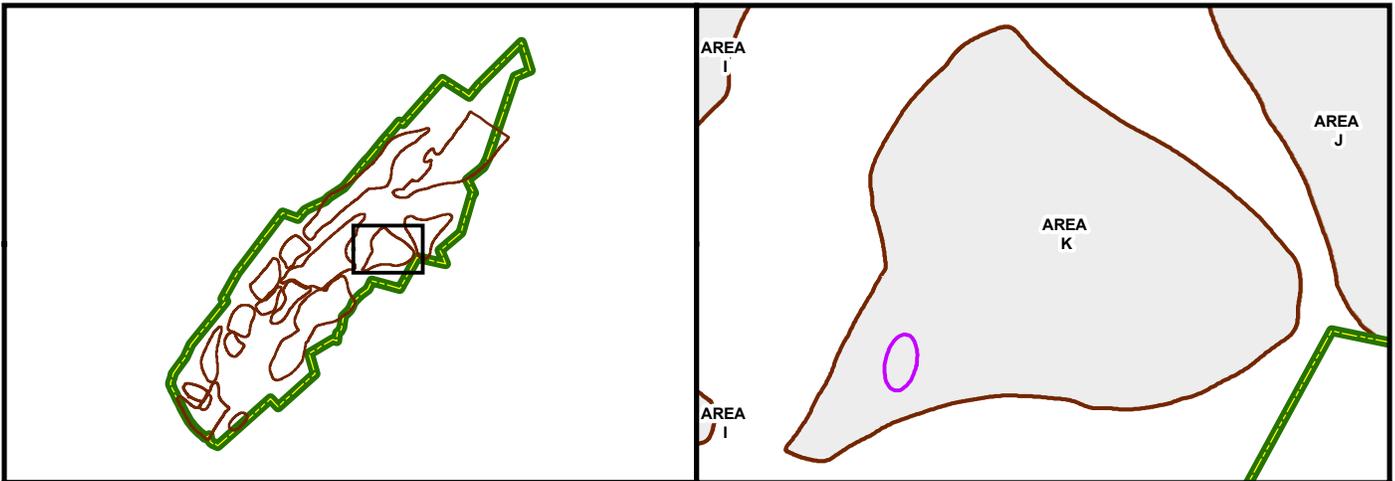
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-15
Site 174 (PICA-161)



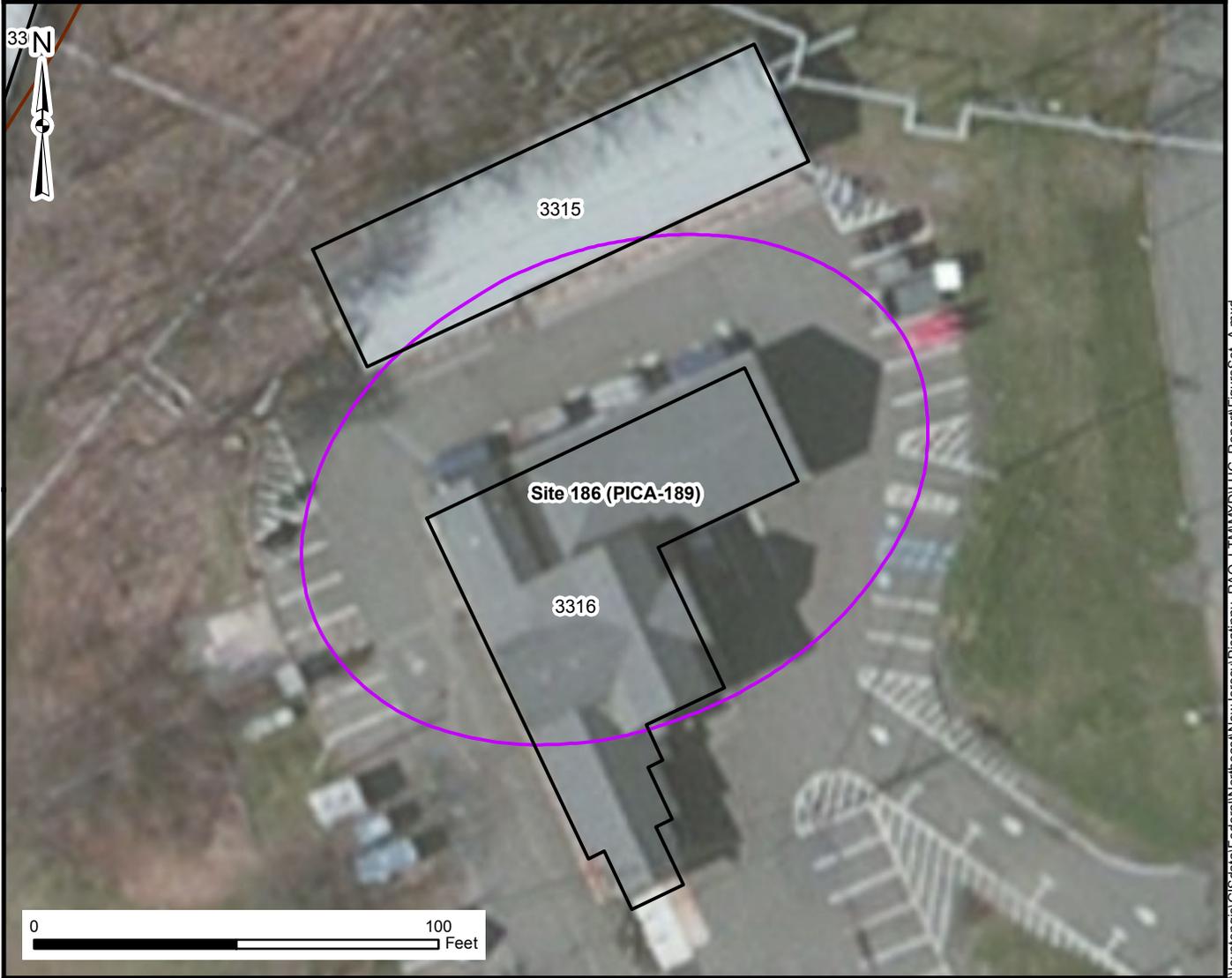
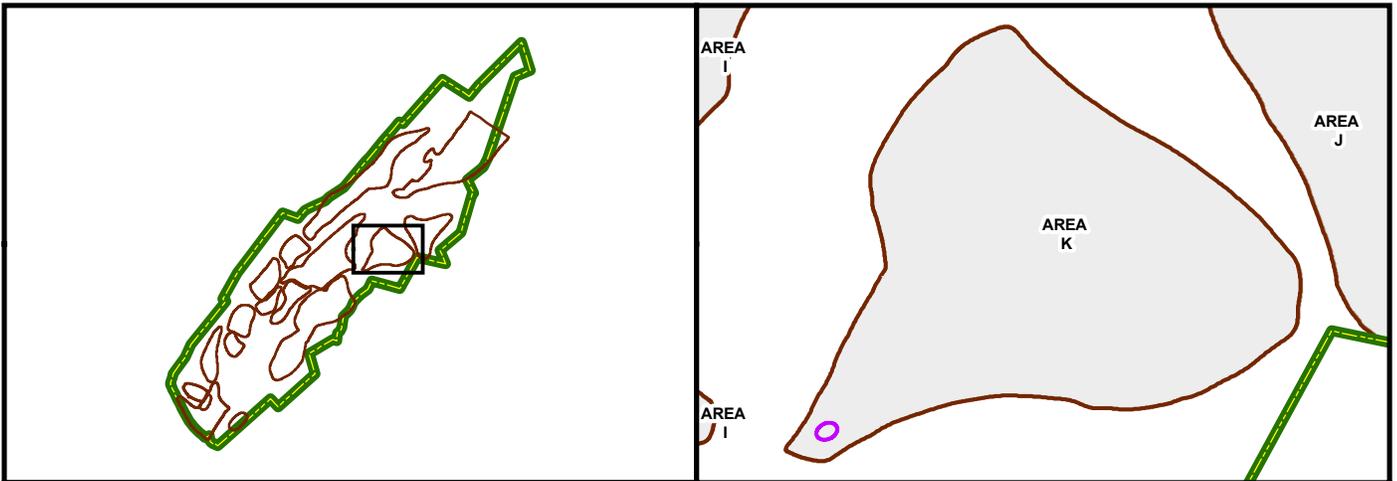
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-16
Site 172 (PICA-159)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatiny_RAO_L1\TMXXDILUC_Report\FigureSet_A.mxd

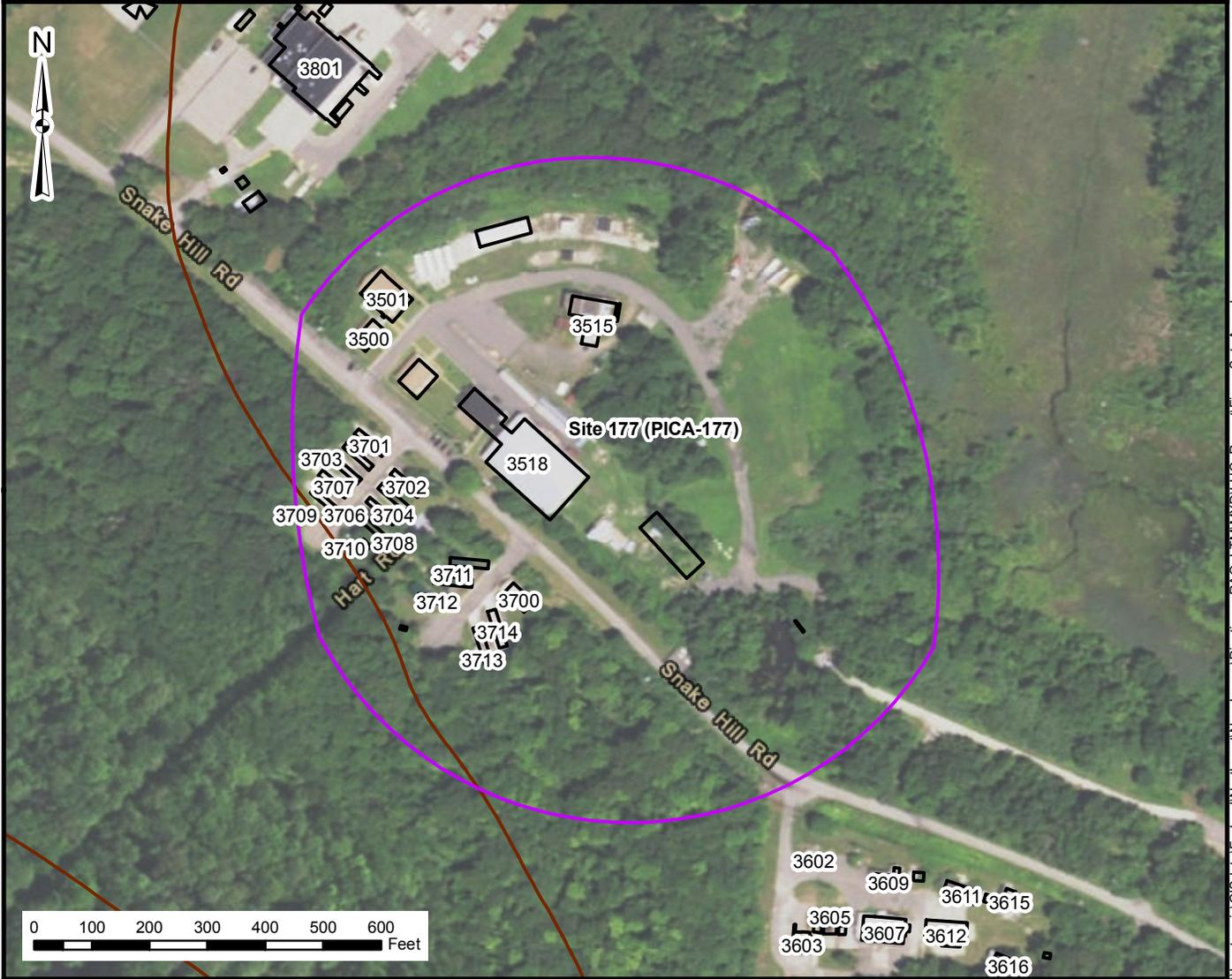
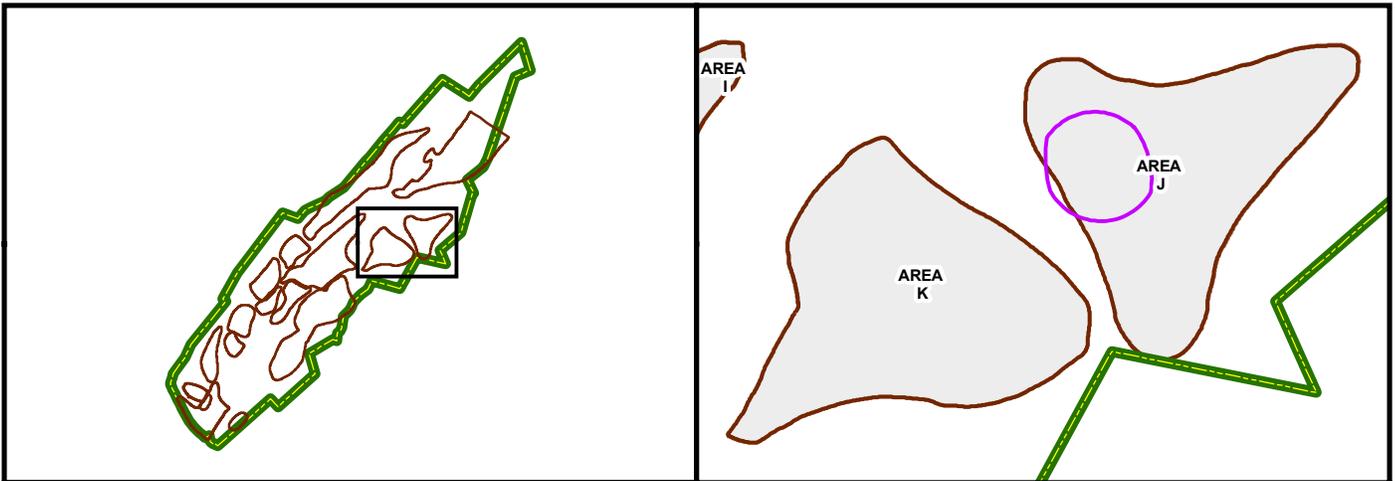
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-17
Site 186 (PICA-189)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXD\LUC_Report\FigureSet_A.mxd

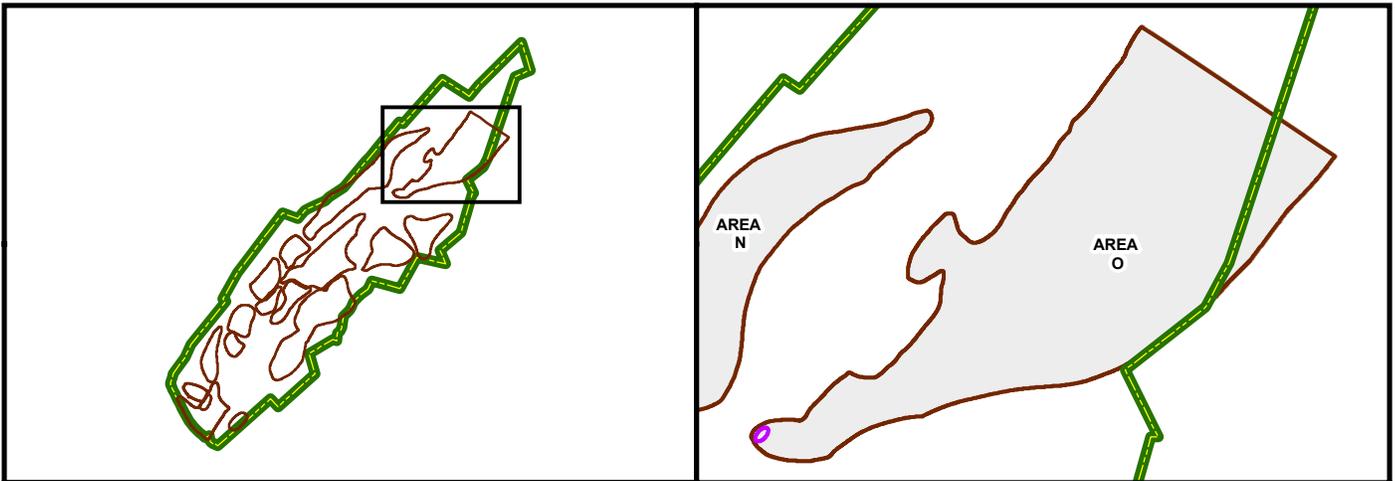
Legend

- Installation Boundary
- Approximate Site Location
- Area Boundary
- Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-18
Site 177 (PICA-177)



\\lovetorgis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXXDILUC_Report\FigureSet_A.mxd

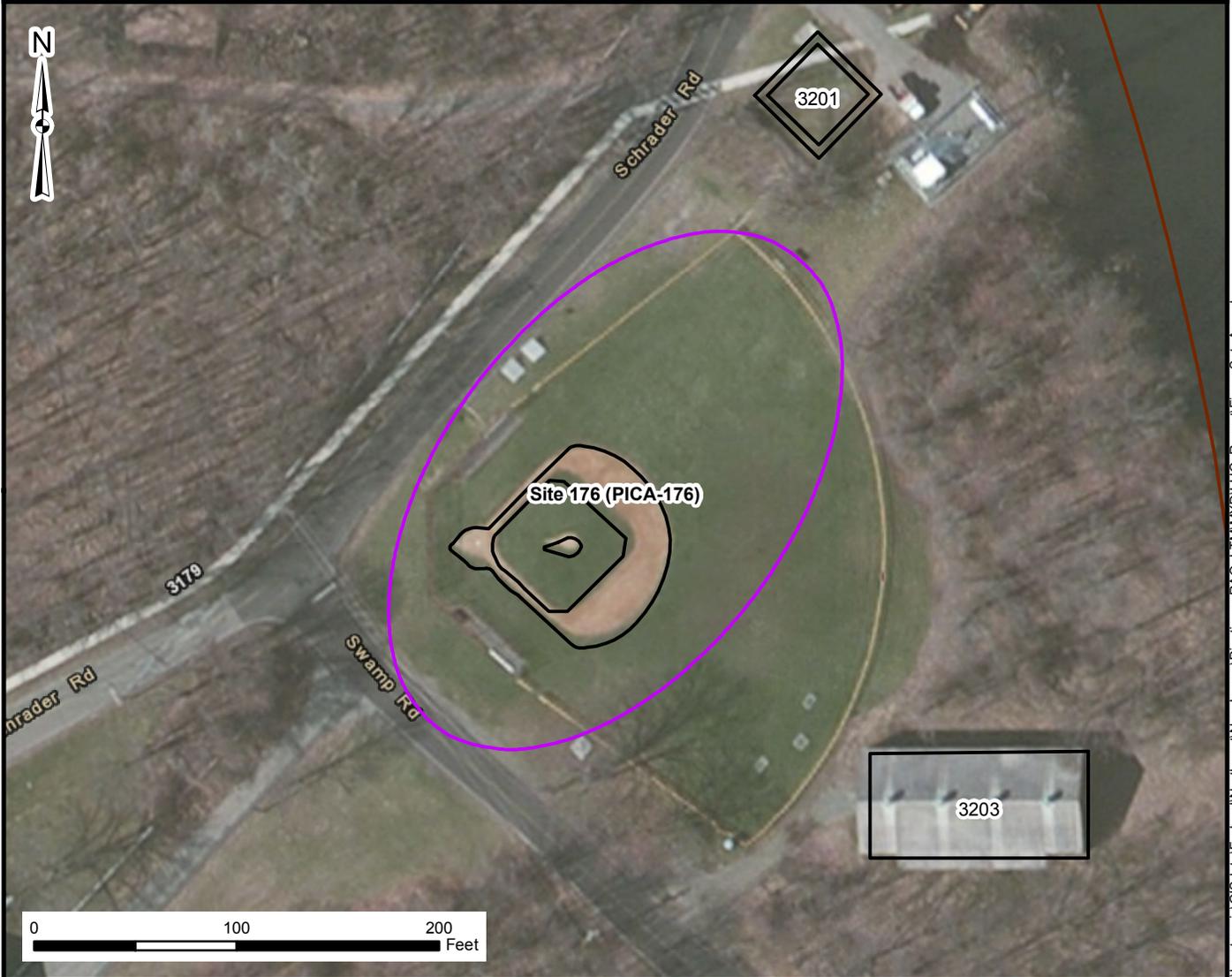
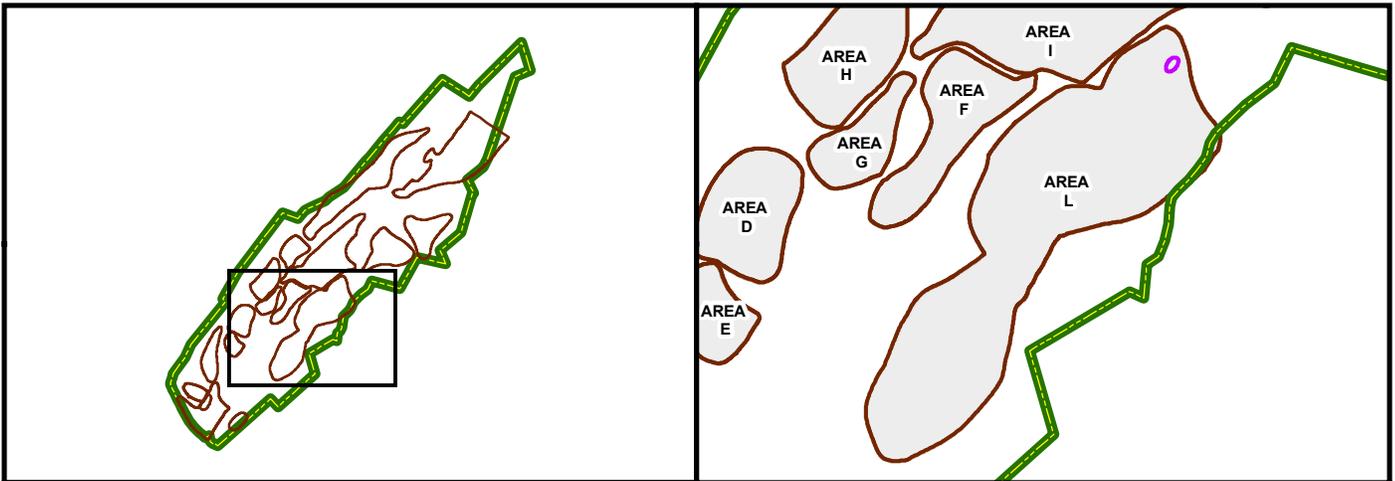
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-19
Site 164 (PICA-183)



\\lovetongis\GIS\data\Federal\Northeast\New Jersey\Picatiny_RAO_L\TMMXDILUC_Report\FigureSet_A.mxd

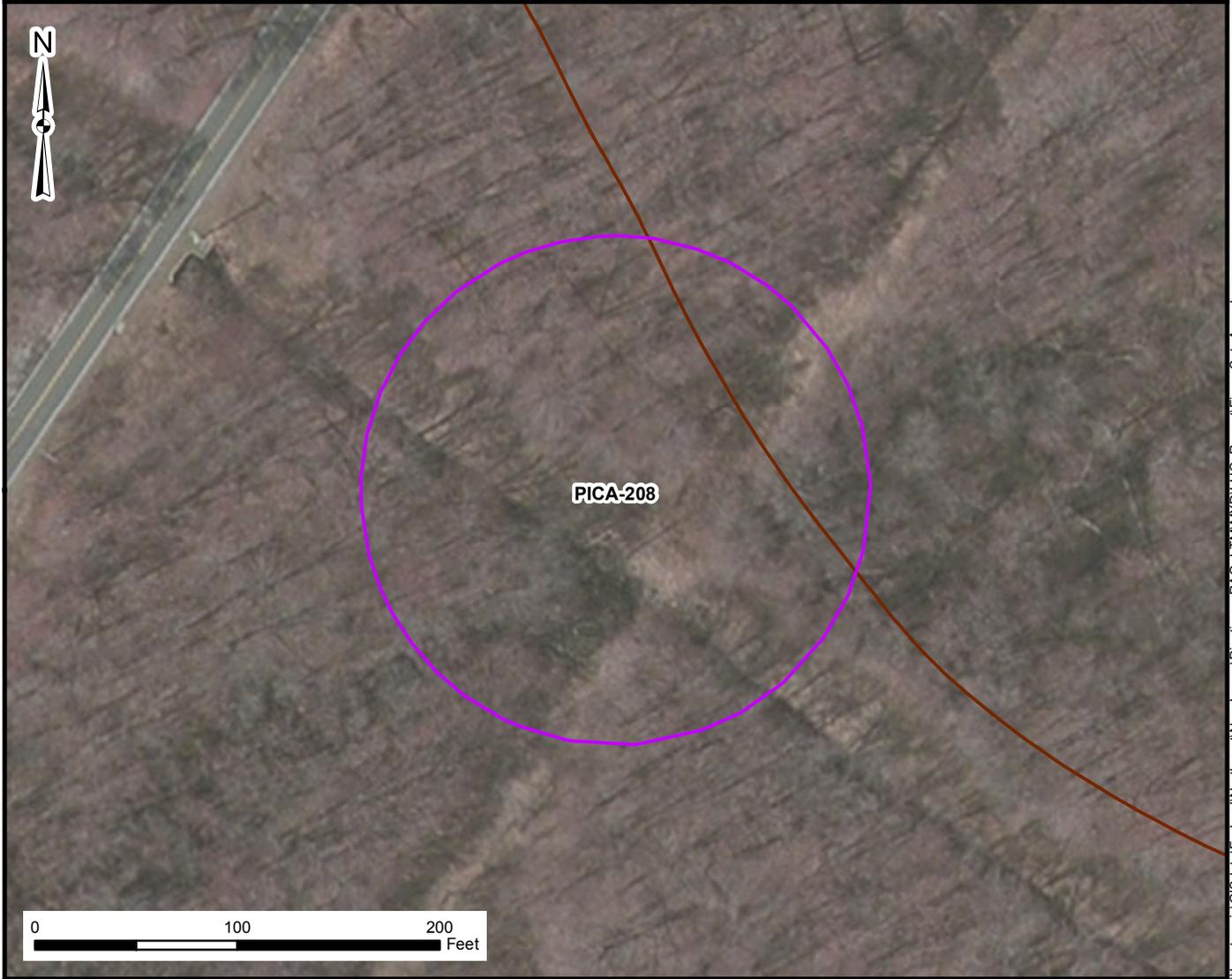
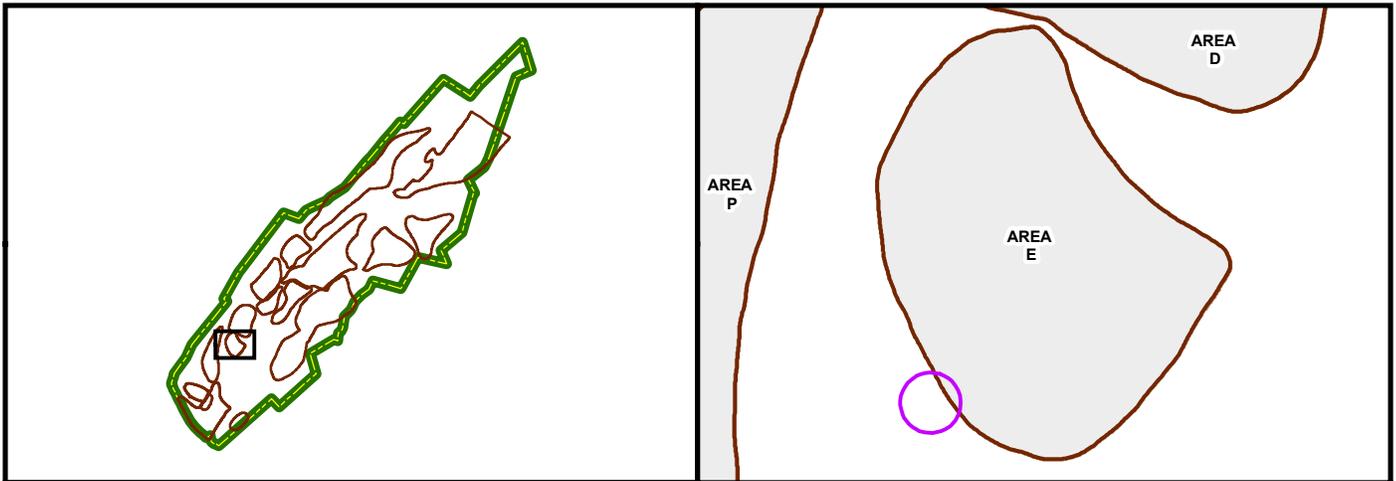
Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary
-  Building



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure U-20
Site 176 (PICA-176)



\\lovetongis\GISdata\Federal\Northeast\New Jersey\Picatinny_RAO_L1\TMXXD\LUC_Report\FigureSet_A.mxd

Legend

-  Installation Boundary
-  Approximate Site Location
-  Area Boundary



ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

**Figure U-21
PICA-208**

21-Site Annual Land Use Monitoring Form

For three sites in Area D (69, 117, and 123); two sites in Area F, (60 and 145); three sites in Area G (134, 136, and 185); one site in Area J (175); three sites in Area K (172, 174, and 186); two sites in Area L (176 and 177); one site in Area N (10); one site in Area O (164); and five sites in Area P (27, 119, 120, 121, and PICA Site 208)

This land use monitoring form is in accordance with the No Further Action with Monitoring of Land Use Record of Decision for Sites 21 Sites within PICA-096 and No Further Action for Site 60. The Record of Decision was signed by the Picatinny Commander and USEPA Region 2 Director of the Emergency and Remedial Response Division on DATE TBD and DATE TBD; respectively.

I. Instructions to Inspector:

The intent of this inspection form is to document land use of the 21-sites included herein and to ensure that the land use remains military/industrial.

1. Physically inspect each site included with the following checklists to verify that land use is currently military or industrial [except for Site 60 which can be released for unrestricted use] since the last inspection.
2. Complete the inspection checklists.
3. Photograph document each site, ensure that the photos capture the current use of each site as they pertain to a military/industrial use; or of any deviations from military/industrial use.

II. Certification of Land Use

The signature below certifies the following:

- That each site included within the inspection checklist has been inspected by the Army or its representative to verify that the current and the reasonably anticipated future land use of the sites remains military/industrial;
- That existing controls are in place at Picatinny Arsenal to prevent unrestricted use of the sites;
- That the Picatinny Master Plan has been reviewed and/or the Master Planning Office has been consulted to identify planned future use of the sites to ensure that the future use is consistent with military/industrial use;
- The selected "No Further Action" remedy remains protective of human health; and
- The Army will notify the United States Environmental Protection Agency at least 45 days in advance of any proposed land use changes that are inconsistent with military and industrial land use.

Approved by Ted Gabel, Project Manager for
Environmental Restoration

Date _____

21 Site NFA Land Use Inspections

Site: Area N, Site 10, PICA-056, Chemical Burial Pit

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
11/3/2015	2:30 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Secured area, vegetated, fenced

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area N, Site 10, PICA-053, Chemical Burial Pit

Site Photographs



Photo 1: Notes

Location of chemical burial pit surrounded by security fence, above ground storage tank.



Photo 2: Notes

Monitoring well adjacent to chemical burial pit.

21 Site NFA Land Use Inspections

Site: Area P, Site 27, PICA-069, Building T-90

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	4:03 PM	John Vrabel	John Vrabel	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Equipment storage

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area P, Site 27, PICA-069, Building T-90

Site Photographs



Photo 1: Notes

Location of former building T-90, currently used as equipment storage.



Photo 2: Notes

Location of former building T -90, currently used as equipment storage.

21 Site NFA Land Use Inspections

Site: Area F, Site 60, PICA-101, Building 163

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	12:07 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active industrial area

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area F, Site 60, PICA-101, Building 163

Site Photographs



Photo 1: Notes

Photography laboratory, building 163 with maintained grass area.

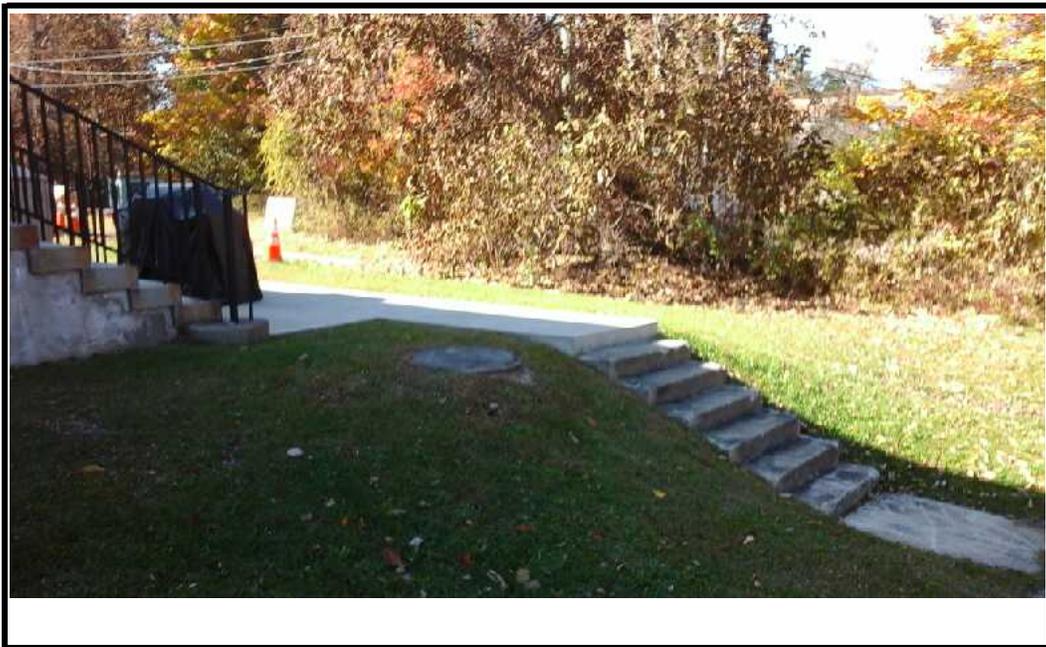


Photo 2: Notes

Photography laboratory with maintained grass area.

21 Site NFA Land Use Inspections

Site: Area F, Site 60, PICA-101, Building 163

Site Photographs

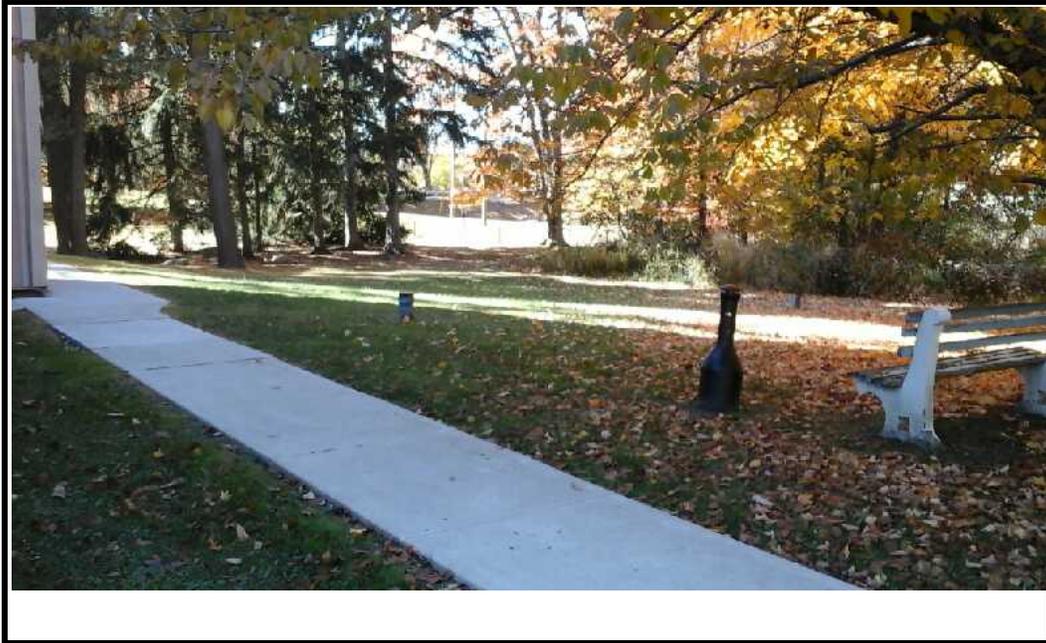


Photo 3: Notes

Photography laboratory with maintained grass area.

21 Site NFA Land Use Inspections

Site: Area D, Site 69, PICA-094, Building 92

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	10:46 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Office building

Have there been any changes to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No. Previous years photo was possibly taken at the incorrect location.

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area D, Site 69, PICA-094, Building 92

Site Photographs



Photo 1: Notes

Active office building. Building 92.

21 Site NFA Land Use Inspections

Site: Area D, Site 117, PICA-96, Building 22

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	11:12 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Grass field surrounded by office buildings.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area D, Site 117, PICA-96, Building 22

Site:

Site Photographs



Photo 1: Notes

Building 22, former precision machine shop and active downtown area

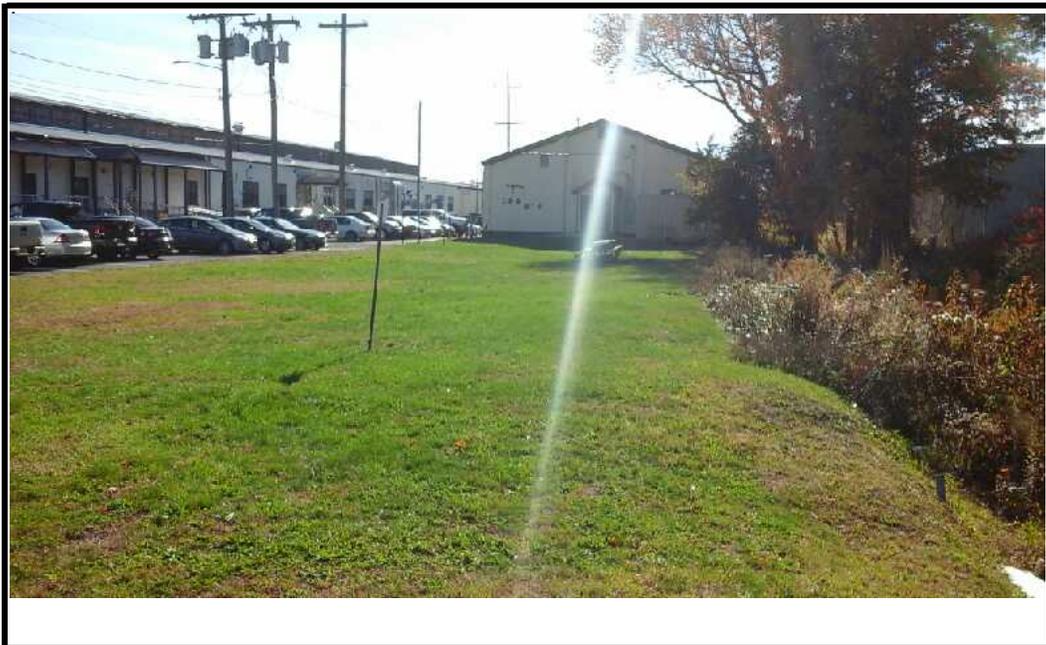


Photo 2: Notes

Former precision machine shop and active downtown area.

21 Site NFA Land Use Inspections

Site: Area P, Site 119, PICA-185, Buildings 46, 47, 48

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	9:46 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Storage magazine

Have there been any changes to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

Building 48 under construction, currently no roof on building.

Inspectors Signature:



21 Site NFA Land Use Inspections

Area P, Site 119, PICA-185, Buildings 46, 47, 48

Site:

Site Photographs



Photo 1: Notes

Building 48 storage magazine and surrounding soil cover. Under construction.



Photo 2: Notes

Building 47 storage magazine.

21 Site NFA Land Use Inspections

Area P, Site 119, PICA-185, Buildings 46, 47, 48
Site:

Site Photographs

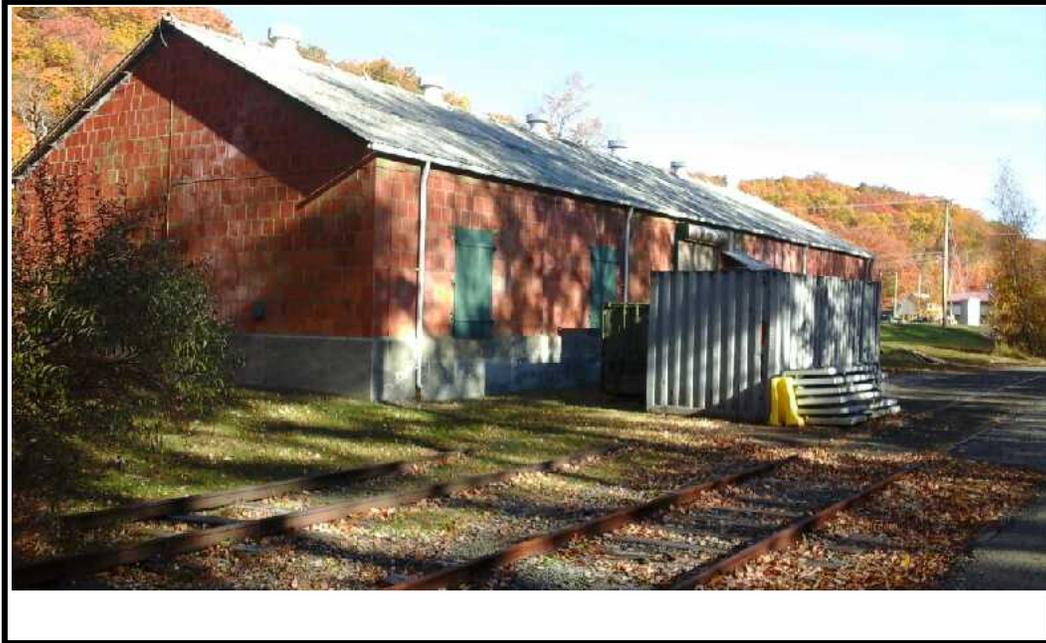


Photo 3: Notes

Building 46 storage magazine.

21 Site NFA Land Use Inspections

Site: Area P, Site 120, PICA-186, Building 50

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	9:30 AM	John Vrabel	John Vrabel	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Magazine building

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area P, Site 120, PICA-186, Building 50

Site:

Site Photographs



Photo 1: Notes

Building 50 storage magazine and surrounding soil cover

21 Site NFA Land Use Inspections

Site: Area P, Site 121, PICA-187, Building 57

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	9:58 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Storage magazine

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area P, Site 121, PICA-187, Building 57

Site:

Site Photographs



Photo 1: Notes

Building 57 storage magazine.



Photo 2: Notes

Building 57 storage magazine.

21 Site NFA Land Use Inspections

Site: Area D, Site 123, PICA-098, Building 64

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	11:18 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Office building

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area D, Site 123, PICA-098, Building 64

Site Photographs



Photo 1: Notes

Building 64, former metal plating shop in downtown area

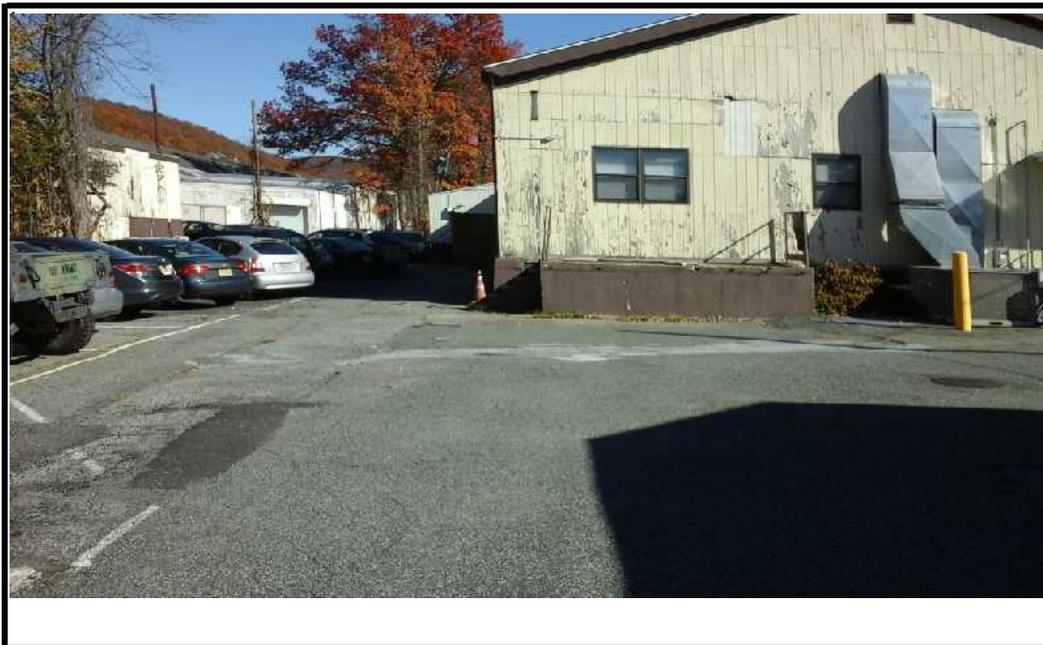


Photo 2: Notes

Building 64, former metal plating shop in downtown area.

21 Site NFA Land Use Inspections

Site: Area G, Site 134, PICA-117, Building 302

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/14/2015	8:33 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Yes. Active service shops with asphalt parking lot and salt stores domes.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area G, Site 134, PICA-029, Building 302

Site Photographs



Photo 1: Notes

Building 302, active service shops and asphalt parking lot.

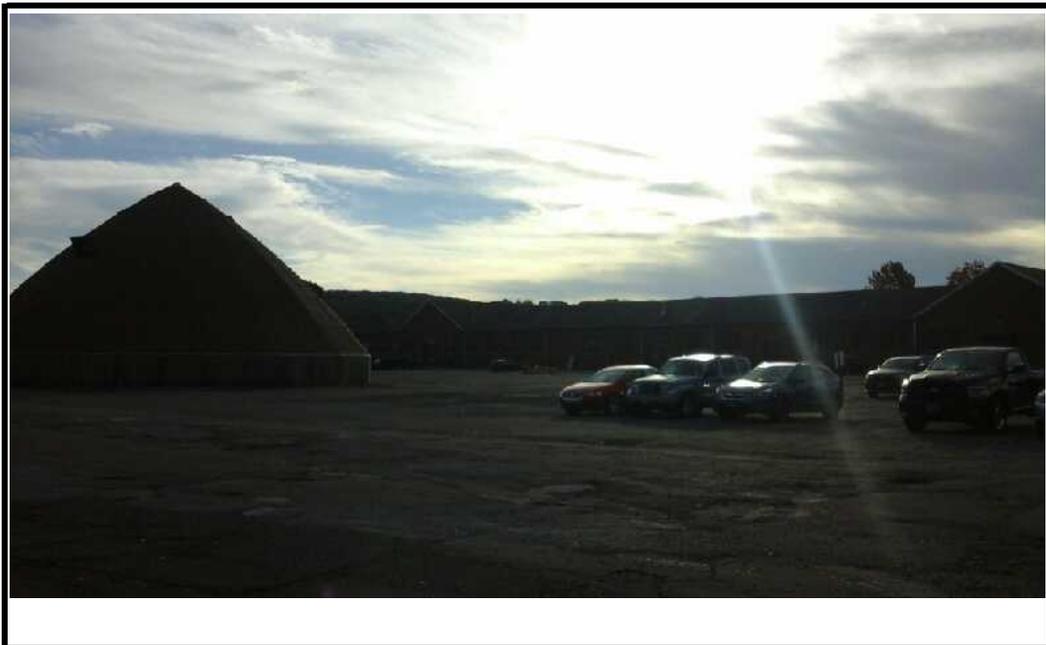


Photo 2: Notes

Building 302, active service shops with asphalt parking lot and salt storage domes.

21 Site NFA Land Use Inspections

Site: Area G, Site 136, PICA-119, Building 355

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	11:37 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Industrial building

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area G, Site 136, PICA-119, Building 355

Site:

Site Photographs



Photo 1: Notes

Front of building 355, active metallurgy laboratory



Photo 2: Notes

Building 355, non-active metallurgy laboratory and asphalt parking lot.

21 Site NFA Land Use Inspections

Area G, Site 136, PICA-119, Building 355
Site:

Site Photographs



Photo 3: Notes

Side of building 355 with maintained grass area



Photo 4: Notes

Back portion of building 355 with asphalt parking lot.

21 Site NFA Land Use Inspections

Site: Area F, Site 145, PICA-114, Building 447

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	11:51 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active building with parking lot

Have there been any changes to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area F, Site 145, PICA-114, Building 447

Site Photographs



Photo 1: Notes

Building 477, active explosives and propellant mixing area.

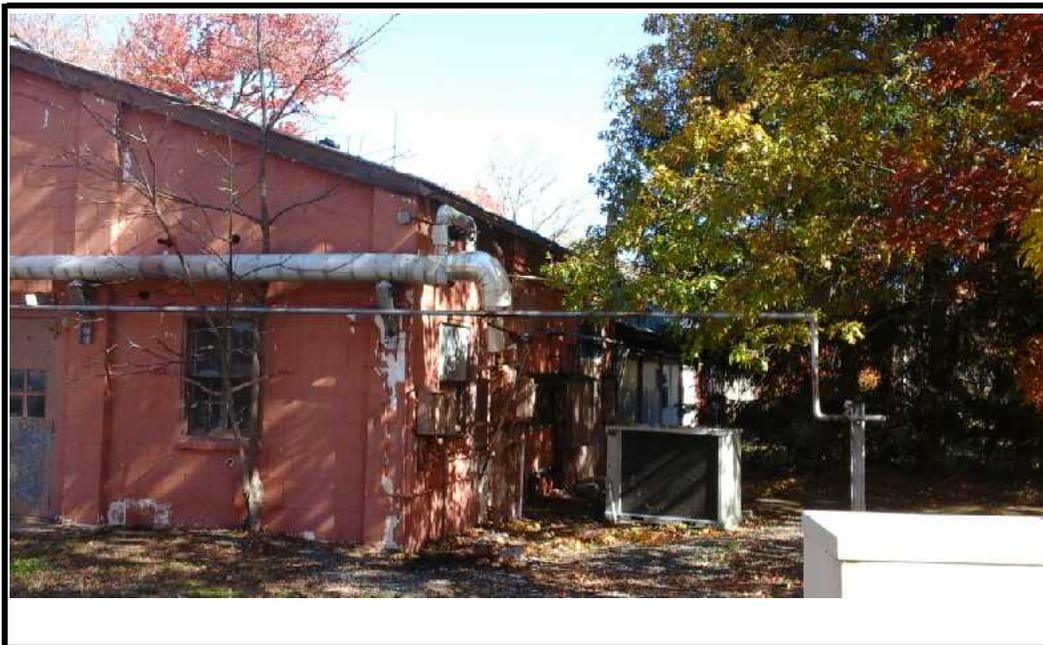


Photo 2: Notes

Building 477, active explosives and propellant mixing area. Back of building.

21 Site NFA Land Use Inspections

Site: Area F, Site 145, PICA-114, Building 447

Site Photographs



Photo 3: Notes

Building 477, active explosives and propellant mixing area.

21 Site NFA Land Use Inspections

Site: Area O, Site 164, Building 1217

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	1:28 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Non-active building

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area O, Site 164, Building 1217

Site Photographs



Photo 1: Notes

Building 1217 and surrounding ground cover.



Photo 2: Notes

Side of building 1217 surrounded by wooded area.

21 Site NFA Land Use Inspections

Site: Area K, Site 172, PICA-159, Building 172

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	3:12 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Vacant parking lot

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area K, Site 172, PICA-159, Building 172

Site:

Site Photographs



Photo 1: Notes

Vacant parking lot across from building 3328.



Photo 2: Notes

Vacant parking lot across from building 3328.

21 Site NFA Land Use Inspections

Area K, Site 172, PICA-159, Building 172
Site:

Site Photographs



Photo 3: Notes

Vacant parking lot across from building 3328.

21 Site NFA Land Use Inspections

Site: Area J, Site 175, PICA-158, Building 3801

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	2:53 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Maintenance shop

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area J, Site 175, PICA-158, Building 3801

Site Photographs



Photo 1: Notes

Front of building 3801



Photo 2: Notes

Hazardous materials storage area behind building 3801

21 Site NFA Land Use Inspections

Site: Area L, Site 176, PICA-176, Ball Field

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/14/2015	12:24 PM	John Vrabel	Sovereign	

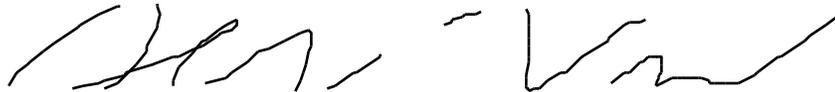
Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Yes. Baseball field.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area L, Site 176, PICA-176, Ball Field

Site Photographs



Photo 1: Notes
Maintained little league baseball field



Photo 2: Notes
Maintained little league baseball field

21 Site NFA Land Use Inspections

Site: Area L, Site 177, PICA-177, Sewer Line Breaks

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/19/2015	2:46 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Office and industrial buildings

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Site: Area L, Site 177, PICA-177, Sewer Line Breaks

Site Photographs



Photo 1: Notes

Sewer line investigations



Photo 2: Notes

Location of sewer line investigation in 600 building area.

21 Site NFA Land Use Inspections

Site: Area L, Site 177, PICA-177, Sewer Line Breaks

Site Photographs



Photo 3: Notes

Location of sewer line investigations building 3100 area.

21 Site NFA Land Use Inspections

Site: Area G, Site 185, PICA-188, Building 350

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	11:29 AM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Office building.

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area G, Site 185, PICA-188, Building 350

Site:

Site Photographs



Photo 1: Notes

Active offices at building 350 with asphalt parking lot and maintained grass areas.



Photo 2: Notes

Active offices at building 350 with asphalt parking lot, and maintained grass areas.

21 Site NFA Land Use Inspections

Site: Area K, Site 186, PICA-189, Building 3316

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	12:47 PM	John Vrabel	Sovereign	

Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Active building

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area K, Site 186, PICA-189, Building 3316

Site:

Site Photographs

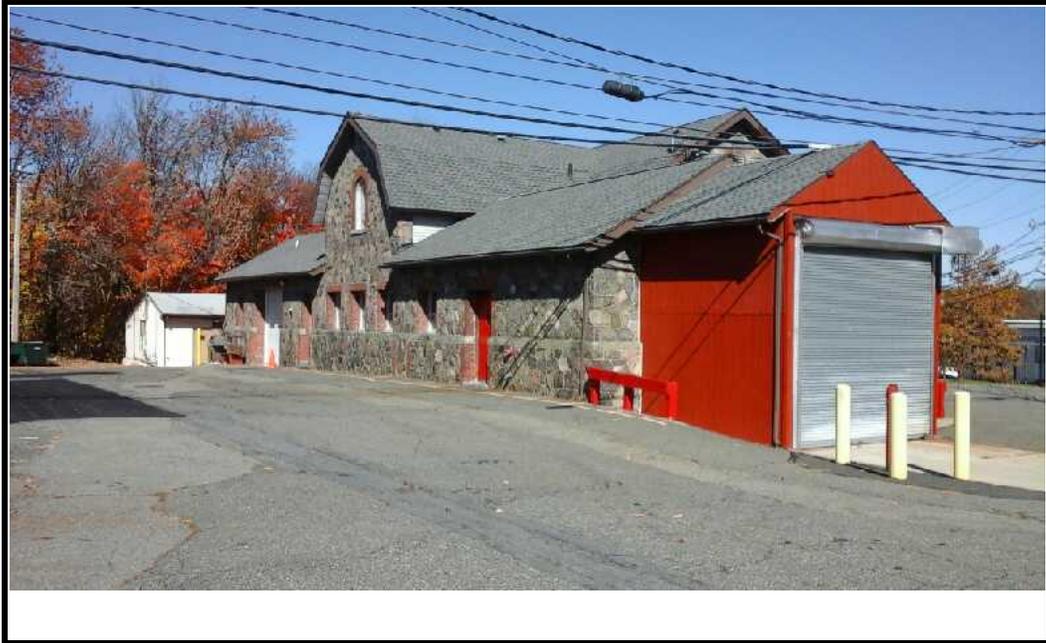


Photo 1: Notes

Former firehouse presently used as a recreation center



Photo 2: Notes

Former firehouse presently used as a recreation center.

21 Site NFA Land Use Inspections

Site: Area P, PICA-208, Former Dog Pound

Date of Inspection	Time of Inspection	Inspector	Company or Organization	Applicable Photo Log Numbers
10/26/2015	10:19 AM	John Vrabel	Sovereign	

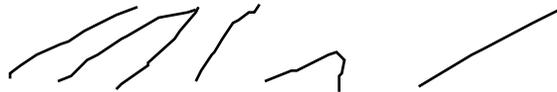
Is the apparent Site use consistent with a recreational Site use (Yes / No)? Briefly describe the current site use (e.g. unused vegetated field, vacant lot , research building, etc.):

Vegetated field

Have there been any changed to site use since the last inspection? If so, briefly describe here (e.g. new buildings):

No

Inspectors Signature:



21 Site NFA Land Use Inspections

Area P, PICA-208, Former Dog Pound

Site:

Site Photographs



Photo 1: Notes

Dense vegetation and concrete structure associated with former dog pound



Photo 2: Notes

Location of former dog pound, dense vegetation and radiation warning sign posted.

21 Site NFA Land Use Inspections

Site: Area P, PICA-208, Former Dog Pound

Site Photographs



Photo 3: Notes

Location of former dog pound, dense vegetation.

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