

- Final (Revision 1) -

ENVIRONMENTAL CONDITION OF PROPERTY REPORT

for the

**INSPECTOR-INSTRUCTOR STAFF
(MARINE CORPS RESERVE CENTER)
WEST TRENTON, NEW JERSEY**



Department of the Navy BRAC Program Management Office

Department of the Navy
Base Realignment and Closure
Program Management Office
1455 Frazee Road, Suite 900
San Diego, California 92108-4310



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TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
TABLE OF CONTENTS	I
ABBREVIATIONS, ACRONYMS, AND SYMBOLS.....	III
EXECUTIVE SUMMARY	1
1.0 PURPOSE.....	1
2.0 BACKGROUND.....	3
3.0 PROPERTY DESCRIPTION.....	5
4.0 ENVIRONMENTAL CONDITION OVERVIEW – EXISTING ENVIRONMENTAL INFORMATION.....	7
4.1 CLASSIFICATION OF ENVIRONMENTAL CONDITIONS	7
4.2 INSTALLATION RESTORATION PROGRAM SITES.....	7
4.3 STORAGE TANKS.....	8
4.3.1 Underground Storage Tanks	8
4.3.2 Aboveground Storage Tanks.....	8
4.4 MUNITIONS AND EXPLOSIVES OF CONCERN.....	8
4.5 HAZARDOUS WASTE	8
4.6 POLYCHLORINATED BIPHENYLS.....	9
4.7 RADIOLOGICAL MATERIALS.....	9
4.8 PESTICIDES.....	9
4.9 ASBESTOS.....	10
4.10 LEAD-BASED PAINT.....	11
4.11 RADON.....	11
4.12 AIR QUALITY.....	11
4.13 WATER QUALITY.....	11
4.13.1 Drinking Water.....	11
4.13.2 Groundwater.....	12
4.13.3 Stormwater.....	12
4.13.4 Surface Water.....	13
4.13.5 Wastewater.....	13
4.14 NATURAL RESOURCES.....	13
4.14.1 Floodplains.....	13
4.14.2 Wetlands and Aquatic Habitats (Special Aquatic Sites).....	13
4.14.3 Coastal Zone Areas.....	14
4.14.4 Coral Reefs.....	14
4.14.5 Fisheries.....	14
4.14.6 Marine Mammal.....	14
4.14.7 Threatened, Endangered and Other Sensitive Species.....	14
4.14.8 Geological Hazards.....	14
4.15 CULTURAL RESOURCES.....	14
4.15.1 Historic Resources.....	14
4.15.2 Archaeological Resources.....	15
4.15.3 Native American Graves.....	15
4.16 SOLID WASTE.....	15
4.17 UNIVERSAL WASTES.....	15
4.18 MEDICAL WASTES.....	15



4.19 HAZARDOUS MATERIALS 15
 4.20 SUMMARY OF ENVIRONMENTAL CONDITIONS 15
 5.0 CERTIFICATION 17

LIST OF TABLES

- Table 4-1. Asbestos Results MCRC West Trenton
- Table 4-2. Radon Results MCRC West Trenton

LIST OF FIGURES

- Figure 3-1. Site Location Map
- Figure 4-1. Former UST Locations
- Figure 4-2. Hazardous Waste & Flammable Storage
- Figure 4-3. Radon Sample Locations
- Figure 4-4. Stormwater System
- Figure 4-5. Wetlands (Planning Level Only)
- Figure 4-6. FEMA Flood Map

LIST OF APPENDICES

- Appendix A: References
- Appendix B: List of Contacts



ABBREVIATIONS, ACRONYMS, AND SYMBOLS

%g	percent acceleration due to gravity	mBtu/hr	million British thermal units per hour
AHERA	Asbestos Hazard Emergency Response Act	MCL	Maximum Contaminant Level
AST	aboveground storage tank	MCRC	Marine Corps Reserve Center
BRAC	Base Realignment and Closure	NAVRAMP	Navy Radon Assessment and Mitigation Program
CAA	Clean Air Act	NFA	No Further Action
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	NJDEP	New Jersey Department of Environmental Protection
CERFA	Community Environmental Response Facilitation Act	NMCRC	Naval and Marine Corps Reserve Center
CFR	Code of Federal Regulations	NPDES	National Pollutant Discharge Elimination System
CWA	Clean Water Act	NRHP	National Register of Historic Places
DoD	Department of Defense	PACM	Presumed Asbestos Containing Material
DRMO	Defense Reutilization and Marketing Office	PCB	polychlorinated biphenyls
EBST	Environmental Baseline Survey Transfer Report	pCi/L	picoCuries per Liter
ECE	Environmental Compliance Evaluation	PMO	Program Management Office
ECP	Environmental Condition of Property	PSE&G	Public Service Electric and Gas Company
EFA NE	Engineering Field Activity Northeast	Pub. L.	Public Law
EFH	Essential Fish Habitat	SDWA	Safe Drinking Water Act
FEMA	Federal Emergency Management Agency	TSCA	Toxic Substances Control Act
FFDCA	Federal Food, Drug, and Cosmetic Act	TTHM	total trihalomethane
FIFRA	Federal Insecticide, Fungicide, and Rodenticide	TWW	Trenton Water Works
ft.	feet/foot	U.S.	United States
GIS	Geographic Information System	U.S.C.	United States Code
HAA	haloacetic acid	USDA	U.S. Department of Agriculture
IRP	Installation Restoration Program	USEPA	U.S. Environmental Protection Agency
		USGS	U.S. Geological Survey
		UST	Underground Storage Tank



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EXECUTIVE SUMMARY

This Environmental Condition of Property (ECP) report for Marine Corps Reserve Center/Inspector-Instructor Staff (MCRC) West Trenton, New Jersey summarizes the historical, cultural, and environmental conditions of the property as part of Base Realignment and Closure (BRAC) documentation associated with closure of MCRC West Trenton. Information was reviewed with installation points of contact to ensure all data are current and accurate. Where information was not available, the sources contacted and reference materials sought were documented.

A brief summary of ECP findings is provided below by subject area.

- **Classifications of Environmental Conditions.** This ECP Report is not intended to identify uncontaminated property in compliance with the Community Environmental Response Facilitation Act (CERFA) and Department of Defense (DoD) policy. The Navy will comply with its statutory requirement to identify uncontaminated property through additional evaluations and documentation. An Environmental Baseline Survey for Transfer (EBST) was completed for the MCRC West Trenton, New Jersey in 2002 (Malcolm Pirnie 2002).
- **Installation Restoration Program Sites.** There are no Installation Restoration Program (IRP) sites identified on the MCRC West Trenton property.
- **Underground Storage Tanks.** There were a total of three underground storage tanks (UST) located at MCRC West Trenton. The tanks consisted of two 10,000-gallon #2 fuel oil USTs and one 500-gallon waste oil UST. The tanks were excavated and removed in April of 1994 (JMT 1997), and the Navy received New Jersey Department of Environmental Protection (NJDEP) approval for No Further Action (NFA) at the sites in January 1998 (NJDEP 1998).
- **Aboveground Storage Tanks.** There are no known historic or existing aboveground storage tanks (ASTs) at MCRC West Trenton.
- **Munitions and Explosives of Concern.** A “small amount” of ordnance is stored at the facility (Malcolm Pirnie 2002). The ordnance is currently stored in a secure room (Armory) on the basement level. Ordnance consists of small arms ammunition (Woodhead 2005).
- **Hazardous Waste.** MCRC West Trenton is classified as a small quantity hazardous waste generator (generator identification code NJ4170022400). The waste generated at the facility is the result of vehicle maintenance and consists of used oil, used antifreeze, oily rags, spent absorbent material, and part cleaning solvents. All waste is accumulated for less than 90 days in the hazardous waste storage building, and all storage, transport, and disposal efforts are managed by a contractor (Safety Clean).
- **Polychlorinated Biphenyls.** Public Service Electric and Gas Company (PSE&G) owns and operates 3 pole-mounted electrical transformers on-site, located adjacent to the exterior western wall of the Communication Building (Malcolm Pirnie 2002). According to site personnel, in addition to the pole-mounted transformers, a transformer is located in the basement of the Communications Building (Woodhead 2005). Drawings, dated November 1985, from the Department of the Navy indicated



that these polychlorinated biphenyls (PCB)-containing oil-type transformers were to be replaced with dry-type (non-PCB) transformers (Malcolm Pirnie 2002). A 1998 letter from the PSE&G to the MCRC West Trenton confirmed that the transformers currently located at the facility (none are specified as pole-mounted or located in the basement) are PCB-free (PSE&G 1998). There is no further documentation available regarding the status of other potential PCB-containing equipment on-site.

- **Radiological Materials.** According to facility personnel (Woodhead 2005), there is no radiological material on-site. In the past, some tritium-containing equipment (compasses, gunner's quadrants, and collimators) was stored in the basement in the armory room. All tritium containing equipment has been removed from the facility or replaced with non-tritium equipment, although the former basement storage area is still placarded with a "Radioactive Material" sign (Woodhead 2005). No further information was available.
- **Pesticides.** According to facility personnel (Woodhead 2006), pesticides are applied by a licensed contractor. No pesticides are stored, mixed, or disposed of on-site.
- **Asbestos.** According to the Asbestos Assessment Survey Naval Reserve Center West Trenton, NJ (Navy 1990), an initial site visit conducted on July 11, 1989 identified presumed asbestos-containing material (PACM) onsite. During a second visit of MCRC West Trenton on March 6-7, 1990, samples were collected for laboratory analysis at the previously identified PACM locations. However, according to the EBST for the MCRC West Trenton (Malcolm Pirnie 2002), as-built drawings of the building renovations completed in 1999 indicated that all materials identified as asbestos-containing material in the survey were removed during the renovation. There is no report available on the asbestos removal or follow-up asbestos surveys.
- **Lead-Based Paint.** Records of a lead paint survey and/or abatement were not provided by facility personnel. Due to the age of initial building construction (approximately 1953), it is likely that lead paint was used at the MCRC West Trenton and could still be present.
- **Radon.** A February 1999 radon survey consisted of the placement of radon detectors in 22 rooms within two buildings (Communications Building and Vehicle Maintenance Building). In February 2000, a total of 18 radon detectors were retrieved (four were lost) and sent for laboratory analysis. None of the detectors contained radon gas concentrations in excess of the United States (U.S.) Environmental Protection Agency (USEPA) maximum contaminant level of 4 picoCuries per Liter (pCi/L) (DOE 2001).
- **Air Quality.** MCRC West Trenton operates two gas-fired boilers under a NJDEP air permit (application log no. 01971395). The permit for these two boilers was issued on May 28, 1997 with an expiration date of five years. Facility personnel were not able to provide evidence that the permit has been renewed.
- **Drinking Water.** Potable water is provided by Trenton Water Works (TWW) and is obtained from a single water source, the Delaware River (TWW 2006a). The original permit to connect the MCRC West Trenton facility to the public community water supply system was issued in 2000 with an expiration date of 2001 (NJDEP 2000). Facility personnel were not able to provide evidence that the permit has been renewed.



- **Groundwater.** Although the drinking water for the MCRC West Trenton facility is obtained through the local municipal water utility, the site overlies an USEPA-designated sole source aquifer. West Trenton is located within the Coastal Plain, which is characterized by unconsolidated sand, gravel, silt, and clay that thickens towards the coast. The Coastal Plain is divided into five major aquifers. The Potomac-Raritan-Magothy aquifer system, a generally confined aquifer, underlies the MCRC West Trenton. The Potomac-Raritan-Magothy aquifer system underlying the MCRC West Trenton is considered a highly productive aquifer and is most used confined aquifer in the Coastal Plain. There are no groundwater wells on-site and no identified source of contaminant infiltration to groundwater.
- **Stormwater.** Stormwater runoff from the northern end of MCRC West Trenton property flows through a combination of storm drains and trench drains along culverts discharging to a drainage swale and eventually to the wetland located north of the site. The stormwater collected on the hazardous waste/flammable material storage area and the stairwell vault of the maintenance garage flow through storm drains along culverts discharging to the drainage swale behind the garage and eventually into the wetland located north of the site. A National Pollutant Discharge Elimination System (NPDES) permit is required for facilities discharging stormwater associated with industrial activities. There were no known NPDES permits for the reserve center and no on-site industrial activities; therefore, an NPDES permit is not required for MCRC West Trenton.
- **Surface Water.** There are no surface water bodies within boundaries of the facility. However, Ewing Creek is located approximately 300 feet (ft.) from the northwest property boundary of the site
- **Wastewater.** A wash pad and associated oil/water separator are located along the southern edge of the facility property. Wash pad effluent flows into a lined sediment basin. From the sediment basin, the wash water flows into the oil/water separator. Once the water has entered the oil/water separator, it flows into a recycled water tank and ultimately into the public utility's sanitary sewer system.

Rainwater collected in the wash pad can flow directly into the city stormwater system or can be diverted into a lined sediment basin. From the sediment basin, the rainwater is flushed back out into the city stormwater system.
- **Floodplains.** No portion of the MCRC West Trenton lies within a designated 100-year flood zone (FEMA 2006). The nearest 100-year flood boundary is approximately 300 ft. north of the site, in the floodplain of Ewing Creek.
- **Wetlands and Aquatic Habitats (Special Aquatic Sites).** According to facility personnel, there are no known wetlands on the MCRC West Trenton property (Woodhead 2005), although according to the New Jersey Department of Environmental Protection GIS, a finger of deciduous wooded wetlands is mapped in the northwest corner of the property (NJDEP GIS 2006).
- **Coastal Zone Areas.** MCRC West Trenton is not located in a coastal area; therefore, Coastal Zone Protection Act considerations are not applicable.
- **Coral Reefs.** MCRC West Trenton does not have any coral reef habitat; therefore, coral reef protection issues are not applicable.



- **Fisheries.** There is no Essential Fish Habitat (EFH) designation for MCRC West Trenton due to the absence of on-site surface water features; therefore, the Magnuson-Stevens Fishery Conservation and Management Act is not applicable.
- **Marine Mammals.** The Marine Mammal Protection Act is not applicable because there is no marine habitat present at MCRC West Trenton.
- **Threatened, Endangered, and Other Sensitive Species.** A threatened and endangered species inventory has not been prepared for MCRC West Trenton. There are no known federal or state threatened, endangered, or other sensitive species on MCRC West Trenton.
- **Geological Hazards.** To date, the largest recorded earthquake in New Jersey occurred in 1783 and had a maximum intensity of VI (based on the qualitative Modified Mercalli Scale), which only caused some minor damage to buildings (USGS 2006b). The West Trenton Area is in an earthquake zone where there is minimal risk for earthquakes that would cause damage (USGS 2002).
- **Historic Resources.** The buildings at the MCRC West Trenton are not listed in the New Jersey or National Register of Historic Places (NRHP) (NJDEP 2005). An archaeological resources survey has not been conducted at MCRC West Trenton to identify archaeological sites and to evaluate their eligibility for the NRHP, but it does not appear that the buildings meet the National Historic Preservation Act criteria.
- **Archaeological Resources.** There are no known archaeological resources at MCRC West Trenton.
- **Native American Graves.** There are no known Native American graves identified on the facility.
- **Solid Wastes.** All solid waste generated by the MCRC West Trenton is collected and disposed of by a licensed contractor (Woodhead 2005).
- **Universal Waste.** All universal waste is removed of and disposed of through the Defense Reutilization Marketing Office (DRMO) Lakehurst (Navy 1997).
- **Medical Waste.** There are no medical facilities or biohazardous waste generators at MCRC West Trenton (Malcolm Pirnie 2002); however, according to MCRC West Trenton personnel medical waste (i.e., sharps and bandages) is generated at the facility and disposed of at Fort Dix (Woodhead 2006).
- **Hazardous Materials.** Hazardous materials stored at MCRC West Trenton include the vehicle maintenance materials such as: oils, gasoline, antifreeze, lubricants, and solvents. The hazardous materials are stored in the flammable storage locker or in the vehicle maintenance facility.



1.0 Purpose

The Navy Base Realignment and Closure (BRAC) Program Management Office (PMO) prepared this Environmental Condition of Property (ECP) report for Marine Corps Reserve Center/Inspector-Instructor Staff (MCRC), West Trenton, New Jersey.

This report used existing information to summarize the historical, cultural, and environmental conditions of MCRC West Trenton property. Information was reviewed with installation personnel to ensure all data are current and accurate. Where information was not available, the sources contacted and reference materials sought were documented.

The purposes of the ECP report are to:

- Provide the BRAC PMO with the information it may use to make disposal decisions regarding the property;
- Provide the public with information relative to the environmental condition of the property;
- Assist the local government in planning for the reuse of BRAC property;
- Assist Federal agencies during the Federal property screening process;
- Provide information for prospective buyers;
- Assist new owners in meeting their obligations under the United States (U.S.) Environmental Protection Agency's (USEPA's) "All Appropriate Inquiry" regulations, at such time as they become final; and
- Assist in determining appropriate responsibilities, asset valuation, liabilities, and liabilities with other parties to a transaction.



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2.0 Background

Marine Corps Reserve Center West Trenton is run by the Inspector-Instructor Staff for Battery G, 3rd Battalion, 14th Marine Regiment, 4th Marine Division. The 3rd Battalion, 14th Marines represents one of many incarnations of a Marine Artillery originally established in Philadelphia in 1930. From Philadelphia, three artillery batteries are commanded. The battalion is part of the larger 14th Marines, an artillery regiment headquartered in Ft. Worth, Texas. The 3rd Battalion is comprised of over 500 Marines and sailors and fields eighteen 155mm howitzers. In 1962, the Battalion was redesignated 3rd Battalion, 14th Marines and by the early 1970's had reached its current configuration with firing batteries in West Trenton, NJ, Reading, PA, and Richmond, VA.

The property was first developed in 1953, and originally the land and buildings were owned by the Navy as part of a larger naval airport (Malcolm Pirnie 2002, Navy 1993). The facility was called the Naval and Marine Corps Reserve Center (NMCRC) and was used as an administrative training facility for naval and marine reserve personnel (Navy 1993). In 1993, all Navy personnel and Naval Reserve Units at the NMCRC in West Trenton were reassigned to the Naval Reserve Center in Fort Dix, New Jersey (Navy 1993). Although the Marines use the facility and the Navy has no personnel or active operations at the facility, the property remains listed on the Navy's plant account.



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3.0 Property Description

The MCRC West Trenton is located west of Scotch Road, West Trenton in Hopewell Township, Mercer County, New Jersey (see **Figure 3-1**). The MCRC West Trenton is located on an 8.23 acre parcel immediately adjacent to and north of the Mercer County Airport (Malcolm Pirnie 2002). The current facility is comprised of a Communications Building, which is a two-story 42,140-square foot concrete building located in the center of the property. Additionally, a vehicle maintenance facility is situated in the northwest corner of the property and a gun shed is positioned on the southwest portion of the property along the northwest corner of the Communications Building. Asphalt parking lots are located to the north, east, and south of the Communications Building and the entrance to the property is accessed along the southeast corner of the property. North of the property are Ewing Creek and Interstate 95. To the south and west of the site is the Trenton Mercer Airport and to the east is a business park/industrial area.



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4.0 Environmental Condition Overview – Existing Environmental Information

As part of ECP report activities, extensive record reviews were conducted, and a meeting at the BRAC PMO Northeast office, an on-site visit, and personnel interviews were held to document current and historic conditions at MCRC West Trenton. The meeting at BRAC PMO Northeast office was conducted on September 26, 2005. The on-site visit was conducted on December 14, 2005.

The BRAC PMO Northeast office as well as site personnel located at MCRC West Trenton provided relevant information for this ECP report. Additionally, available reports of previous environmental investigations at MCRC West Trenton were obtained and reviewed. **Appendix A** presents a list of the documents that were reviewed as part of this effort. The information presented in this report was reviewed with installation personnel to ensure all data are current and accurate. Where information was not available, the sources contacted and reference materials sought were documented.

Interviews were conducted with MCRC West Trenton personnel during a site visit and in subsequent telephone conversations and e-mail communications. References are presented in **Appendix A**. **Appendix B** presents a list of the people contacted during preparation of this ECP report.

4.1 Classification of Environmental Conditions

The Community Environmental Response Facilitation Act (CERFA) of 1992 (amending the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] to add Section 120(h)(4) of CERCLA, 42 United States Code (U.S.C.) Section 9620(h)(4)) requires the identification and documentation of uncontaminated real property controlled by the Department of Defense (DoD). Components where DoD plans to make excess property available for reuse pursuant to a base closure law. Uncontaminated property is defined as any "real property on which no hazardous substances and no petroleum products or their derivatives were known to have been released, or disposed of." This includes aviation fuel and motor oil. This ECP Report is not intended to identify uncontaminated property in compliance with CERFA and DoD policy. The Navy will comply with its statutory requirement to identify uncontaminated property through additional evaluations and documentation.

An Environmental Baseline Survey for Transfer (EBST) was completed for the MCRC West Trenton, New Jersey in 2002 (Malcolm Pirnie 2002).

4.2 Installation Restoration Program Sites

There are no Installation Restoration Program (IRP) Sites identified on the MCRC West Trenton property.



4.3 Storage Tanks

4.3.1 Underground Storage Tanks

There were formerly three underground storage tanks (UST) located at MCRC West Trenton (**Figure 4-1**). The tanks consisted of two 10,000-gallon #2 fuel oil USTs, and one 500-gallon waste oil UST. According to the *Underground Storage Tank Site Assessment Summary Report Revision* (JMT 1997), the tanks were excavated and removed in April of 1994. During tank removal operations, visual observation revealed small holes and minor soil staining in the vicinity of the two 10,000-gallon USTs. There was no visual evidence of holes or stained soil near the 500 gallon waste oil UST. Soil under the two 10,000-gallon tanks was excavated until field screening of soil vapors from soil grab samples indicated nominal organic vapors were present in soil from the bases of the excavation and sidewalls. Following tank removal, five confirmatory soil samples were collected from each of the three excavations for laboratory chemical analysis. The laboratory data indicated that petroleum hydrocarbon concentrations were below applicable New Jersey Department of Environmental Protection (NJDEP) standards in all samples. Based on these results, all three excavations were backfilled with clean fill. In January 1998, the Navy received formal approval from the NJDEP for No Further Action (NFA) at the former UST sites (NJDEP 1998).

4.3.2 Aboveground Storage Tanks

There are no existing aboveground storage tanks (ASTs) at MCRC West Trenton. In addition, there are no ASTs known to have been used in the past at the facility.

4.4 Munitions and Explosives of Concern

According to the 2002 EBS, there is a “small amount” of ordnance stored at the facility which consists of ammunitions for pistols and rifles (Malcolm Pirnie 2002). Facility personnel (Woodhead 2005) confirmed that small arms munitions are currently stored in the Armory on the basement level of the Communications Building.

4.5 Hazardous Waste

In accordance with CERCLA 120(h)(1), Title 40 Code of Federal Regulation (CFR) Part 373 and the DoD policy of June 17, 1994, notice is required when a hazardous substance has been stored for one year or more in quantities greater than 1,000 kilograms or the substance’s CERCLA reportable quantity, whichever is greater, or when hazardous substances that are also listed under 40 CFR 261.30 as acutely hazardous wastes, and that are stored for one year or more, have been stored in quantities greater than or equal to the substance’s reportable quantity. Medical wastes and universal wastes are not regulated under CERCLA.

MCRC West Trenton is classified as a small quantity hazardous waste generator (generator identification code NJ4170022400) and handles waste on a less than 90-day basis. The waste generated at the facility is the result of vehicle maintenance and consists of used oil, used antifreeze, oily rags, spent absorbent material, and parts cleaning solvents. No vehicle painting occurs at the site (Woodhead 2005). All waste is accumulated in the hazardous waste and



flammable storage building (**Figure 4-2**) and is managed by a contractor (Safety Kleen) (Navy 1997).

4.6 Polychlorinated Biphenyls

The Toxic Substances Control Act (TSCA) (Public Law [Pub. L.] 94-469 enacted in 1976 and effective January 1, 1977) authorizes the USEPA to secure information on all new and existing chemical substances and to control any of these substances that could cause an unreasonable risk to public health or the environment. Under earlier laws, the USEPA had authority to control toxic substances only after damage had occurred. The earlier laws did not require the screening of toxic substances before they entered the marketplace. TSCA closed the gap in the earlier laws by requiring that the health and environmental effects of all new chemicals be reviewed before they are manufactured for commercial purposes. Polychlorinated biphenyls (PCBs) are regulated under Title I (Control of Toxic Substances), which includes provisions for testing chemical substances and mixtures, manufacturing and processing notices, regulating hazardous chemicals substances and mixtures, managing imminent hazards, and reporting and retaining information.

Public Service Electric and Gas Company (PSE&G) owns and operates 3 pole-mounted transformers on the property, located on a pole along the western wall of the Communications building (Malcolm Pirnie 2002). According to site personnel, in addition to the pole-mounted transformers, a transformer is located in the basement of the Communications Building (Woodhead 2005). Drawings, dated November 1985, from the Department of the Navy indicated that the PCB containing oil-type transformers were to be replaced with dry-type (non-PCB) transformers (Malcolm Pirnie 2002). A 1998 letter from PSE&G to the MCRC West Trenton confirmed that transformers, not specified if pole-mounted or located in the Communication Building, at the facility were mineral oil filled, although no confirmation inspection has been performed (PSE&G 1998).

4.7 Radiological Materials

According to facility personnel (Woodhead 2005), there is no radiological material on-site. In the past, some tritium-containing equipment (compasses, gunner's quadrants, and collimators) was stored in the basement in the armory room. All tritium-containing equipment has been removed from the facility or replaced with non-tritium equipment, although the former basement storage area is still placarded with a "Radioactive Material" sign (Woodhead 2005). No further information was available.

4.8 Pesticides

The USEPA regulates the use of pesticides under the authority of two federal statutes: the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA). The FIFRA provides the basis for regulation, sale, distribution and use of pesticides in the U.S., whereas the FFDCA authorizes the USEPA to set maximum residue levels, or tolerances, for pesticides used in or on foods or animal feed.



According to facility personnel (Woodhead 2006), pesticides are applied by a licensed contractor, if needed. No pesticides are stored, mixed, or disposed of on-site (Woodhead 2006).

4.9 Asbestos

Asbestos abatement is regulated under TSCA Title II, Asbestos Hazard Emergency Response, which was added by the Asbestos Hazard Emergency Response Act (AHERA, Pub. L. 99-519), enacted by Congress on October 22, 1986. It authorizes the USEPA to amend its TSCA regulations to impose more requirements on asbestos abatement in schools. AHERA provides for the promulgation of federal regulations requiring inspection for asbestos and appropriate response actions in schools and mandates periodic reinspection. In addition, it requires the USEPA Administrator to determine "the extent of the danger to human health posed by asbestos in public and commercial buildings and the means to respond to any such danger."

According to the report Asbestos Assessment Survey, Naval Reserve Center West Trenton, NJ (Navy 1990), an initial site visit was conducted on July 11, 1989. The initial site visit consisted of walkthrough of all facilities during which all locations and approximate quantities of all building materials suspected as possible containing asbestos were noted. A second visit of MCRC West Trenton was conducted on March 6-7, 1990 where samples were collected for laboratory analysis based on the previous suspected asbestos-containing materials. The results from the laboratory analysis verified the presence of asbestos in the following materials and are summarized in **Table 4-1**:

- Cardboard pipe covering
- Pipe covering
- MJP on pipe covering
- MJP on cardboard pipe covering
- Tank insulation, breeching
- Duct insulation
- Corrugated pipe covering
- MJP on corrugated pipe covering.

In addition, the following materials were assumed to contain asbestos based on the USEPA Purple book (Guidance for Controlling Asbestos-Containing Materials in Buildings):

- Vinyl floor tile
- Cinder block mortar
- VFT mastic
- Tile grout
- Baseboard mastic
- Fire brick
- Fire doors.

During the 1993 transfer of property from the Navy to the Marine Corps, the buildings were identified as being heavily contaminated with asbestos, some of which was in a friable state (Navy 1993). As part of the property transfer, the Navy removed and properly disposed of the asbestos. No asbestos abatement reports or disposal documentation were available. However,



according to the EBST for the MCRC West Trenton (Malcolm Pirnie 2002), as-built drawings of the building renovations completed in 1999 indicated that all materials identified as asbestos-containing material in the survey were removed during the renovation.

4.10 Lead-Based Paint

Records of a lead paint survey and/or abatement were not provided by facility personnel. According to the 1997 Environmental Compliance Evaluation (ECE) of the MCRC West Trenton, the vehicle maintenance facility was inspected for lead based paint as part of a design for a construction project and no deficiencies were found (Navy 1997). Due to the age of initial building construction (approximately 1953), it is likely that lead paint was used at the MCRC West Trenton and could still be present.

4.11 Radon

Indoor radon concentrations are regulated under TSCA Title III (Indoor Radon Abatement), which was added on October 28, 1988 (Pub. L. 100-551). The purpose of this legislation is to assist states in responding to the threat to human health posed by exposure to radon. The USEPA is required to publish an updated citizens' guide to radon health risk and to perform studies of the radon levels in schools and radon contamination in federal buildings.

In accordance with Navy Radon Assessment and Mitigation Program (NAVRAMP), a radon assessment was conducted at the MCRC West Trenton. The survey consisted of the placement of radon detectors in 22 rooms of the two buildings (basement floor of the Communications Building and Vehicle Maintenance Building) in February 1999. In February 2000, a total of 18 radon detectors were retrieved (four were lost) and sent for analysis. The results indicated that none of the detectors identified radon in excess of USEPA maximum contaminant level of 4 picoCuries per Liter (pCi/L) level (DOE 2001). The results are summarized in **Table 4-2** and their locations are shown in **Figure 4-3**.

4.12 Air Quality

Air emissions at MCRC West Trenton are regulated under the Clean Air Act (CAA).

Historically, the MCRC West Trenton operated two gas fired boilers under a NJDEP air permit. Any boiler rated above 1.0 million British thermal units per hour (mBtu/hr) is required to have an air emission permit. The boilers at MCRC West Trenton were rated at 1.357 and 3.755 mBtu/hr with a common exhaust stack vented directly to the atmosphere (NJDEP 1997). The permit for these two boilers was issued on May 28, 1997 with an expiration date of five years. According to Navy personnel (Hunt 2006), the boilers have been changed out since 1997. The output rates of the boilers were not available at the time of this EPC report.

4.13 Water Quality

4.13.1 Drinking Water

The Safe Drinking Water Act (SDWA) of 1974, amended in 1986 and 1996, was passed to protect public health by regulating the nation's public drinking water supply and its sources



including rivers, lakes, reservoirs, springs, and groundwater. Drinking water for the facility is provided by Trenton Water Works (TWW) (Malcolm Pirnie 2002). The original permit to connect the MCRC West Trenton facility to the public community water supply system was issued in 2000 with an expiration date of 2001 (NJDEP 2000). No renewal applications or compliance water quality data were available. The potable water provided by TWW is obtained from the Delaware River (TWW 2006a).

According to the TWW 2005 Water Quality Report, 2004 quarterly analyses were performed for treated Delaware River water for the following parameters: lead, copper, total trihalomethanes (TTHMs), haloacetic acids (HAAs), total coliform bacteria, fecal coliform and *E. coli*, turbidity, barium, fluoride, sulfate, sodium, and total chlorine (TWW 2006b). In the first and second quarter of 2004, the most recent period of publicly-available data, the running annual average of the four quarterly samples tested for HAAs exceeded the regulatory standard [i.e., the maximum contaminant level (MCL)]. HAAs can be formed as a byproduct of chlorine reacting chemically with natural organic materials after the water has left the treatment plant. The regulatory standard for HAAs has not been exceeded since the second quarter of 2004. Although HAAs in excess of the MCL are not an immediate health risk, the TWW is currently working to reduce the levels of HAAs and other byproducts of chlorine disinfection.

4.13.2 Groundwater

Although the drinking water for the MCRC West Trenton facility is provided by the Delaware River through the local municipal water utility, the site overlies an USEPA-designated, sole source aquifer. The principal aquifers in New Jersey are divided into two categories, Coastal Plain aquifers in the southern portion of the state and non-Coastal Plain aquifers in the north (USGS 2006a). West Trenton is located within the Coastal Plain and is characterized by unconsolidated sand, gravel, silt, and clay that thickens towards the coast. Highly permeable beds of coarse material form aquifers that differ in areal extent and thickness across the state. Slightly permeable interbeds of silt and clay form confining layers which restrict the vertical flow of groundwater. The Coastal Plain is further subdivided into five major aquifers, the Kirkwood-Cohansey aquifer, the Atlantic City aquifer, the Wenonah-Mount Laurel aquifer, the Englishtown aquifer, and the Potomac-Raritan-Magothy aquifer. The Potomac-Raritan-Magothy aquifer system underlies the MCRC West Trenton. This aquifer is located at a depth of 50 to 1,800 feet (ft.) below land surface and is up to 4,100 ft. thick. It is considered highly productive and is the most used confined aquifer in the Coastal Plain.

Currently there are no groundwater wells on the MCRC West Trenton property.

4.13.3 Stormwater

The Water Pollution Control Act Amendments of 1972, commonly known as the Clean Water Act (CWA), uses a variety of regulatory and nonregulatory tools to reduce pollutant discharges into waterways and to manage polluted runoff. Under the CWA, a National Pollutant Discharge Elimination System (NPDES) permit is required for facilities discharging stormwater associated with industrial activities.

Along the southern edge of the facility property is a wash pad and associated oil/water separator installed *circa* 1997 (Quad Three Group 1997). It appears that the wash pad can discharge to the stormwater system or to the wastewater system. Site plans indicate that



stormwater from the northern half of the MCRC West Trenton discharges through catch basins and trench drains to a drainage swale on the north end of the site (**Figure 4-4**) and eventually to the wetland located north of the site. In addition, the plans indicate that stormwater from the hazardous waste/flammable storage pad along with the vehicle maintenance garage stairway vault are collected in drains and discharge to the drainage swale on the west side of the property and eventually to the wetland located north of the site. However, there is no record of a NPDES permit associated with the MCRC West Trenton (Woodhead 2005).

4.13.4 Surface Water

There are no surface water bodies within boundaries of the facility. However, Ewing Creek is located approximately 300 ft. from the northwest property boundary of the site as illustrated on **Figure 4-5**.

4.13.5 Wastewater

The facility discharges all sanitary sewage to the Ewing Township Sewerage Authority (Navy 1997). It was noted during the 1997 ECE from a review of facility drawings that the grease pit in the vehicle maintenance facility discharged directly to the ground; however, facility personnel (Woodhead 2006) were unable to locate the grease pit or any drains inside the vehicle maintenance facility. See **Section 4.5.1** for hazardous waste handling.

A wash pad and associated oil/water separator are located along the southern edge of the facility property. Wash pad effluent flows directly into a lined sediment basin. From the sediment basin, the wash water flows into the oil/water separator. Once the water has entered the oil/water separator, it flows into a recycled water tank and ultimately into the public utility's sanitary sewer system (Quad Three Group 1997).

Any rain water collected in the wash pad can flow directly into the stormwater sewer system or can be diverted into the lined sediment basin. From the sediment basin, the rain water is flushed back out into the stormwater system (Quad Three Group 1997).

4.14 Natural Resources

There is no Integrated Natural Resource Management Plan for the MCRC West Trenton. The information provided below was obtained from Geographic Information System (GIS) databases from NJDEP, the U.S. Department of Agriculture (USDA), the U.S. Geological Survey (USGS), or from the interview of site personnel.

4.14.1 Floodplains

Based on Federal Emergency Management Agency (FEMA) data, no portion of the MCRC West Trenton lies within a designated 100-year flood boundary (FEMA 2006). The nearest 100-year flood boundary is approximately 260 ft. north of the site along the Ewing Creek (**Figure 4-6**).

4.14.2 Wetlands and Aquatic Habitats (Special Aquatic Sites)

According to facility personnel, there are no known wetlands on the MCRC West Trenton (Woodhead 2005). However, according to the New Jersey Department of Environmental



Protection GIS (NJDEP GIS 2006), there is a finger of deciduous wooded wetlands in the northwest corner of the property (**Figure 4-5**).

4.14.3 Coastal Zone Areas

Coastal Zone Protection Act is not applicable to the MCRC West Trenton Site.

4.14.4 Coral Reefs

Coral reef protection is not applicable to the MCRC West Trenton Site.

4.14.5 Fisheries

The Magnuson-Stevens Fishery Conservation and Management Act is not applicable for MCRC West Trenton because there are no water bodies on the site.

4.14.6 Marine Mammal

Marine Mammal Protection Act is not applicable for MCRC West Trenton.

4.14.7 Threatened, Endangered and Other Sensitive Species

There are no known federal or state threatened, endangered, or other sensitive species identified on MCRC West Trenton (Woodhead 2005).

4.14.8 Geological Hazards

To date, the largest earthquake in New Jersey occurred in 1783 and had a maximum intensity of VI which only caused some minor damage to buildings (USGS 2006b). The West Trenton Area is in an earthquake zone where in a 50 year period, there is only a 10 percent chance of an earthquake occurring with peak acceleration (ground movement) of 4 percent acceleration due to gravity (%g). It takes a peak acceleration of 10%g to cause damage buildings; therefore, there is minimal risk of an earthquake that would cause damage in the West Trenton area (USGS 2002).

See **Section 4.14.1** for information on flood hazards.

4.15 Cultural Resources

Cultural resources at MCRC West Trenton are federally regulated under the National Historic Preservation Act, Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act.

4.15.1 Historic Resources

The buildings at the MCRC West Trenton are not listed in the New Jersey or National Registers of Historic Places (NJDEP 2005). It does not appear that the buildings meet the National Historic Preservation Act criteria but because of their age, a cultural resource survey would need to be completed to confirm this observation.



4.15.2 Archaeological Resources

The Archaeological Resources Protection Act is not applicable to MCRC West Trenton because no known archaeological resources have been identified on the facility (Woodhead 2005).

4.15.3 Native American Graves

The Native American Graves Protection and Repatriation Act is not applicable to MCRC West Trenton because no known Native American graves have been identified on the facility (Woodhead 2005).

4.16 Solid Waste

All solid waste generated by the MCRC West Trenton is collected and disposed of by a licensed contractor (Woodhead 2005).

4.17 Universal Wastes

Federal universal wastes are set forth in 40 CFR Part 273 and include batteries, pesticides, thermostats, and lamps. States can modify the universal waste rule and add additional universal waste in individual state regulations. The State of New Jersey adds to the federal list of universal waste categories state-specific materials which include electronics, mercury-containing devices, and oil-based finishes (USEPA 2006).

All universal waste is removed of and disposed of through the Defense Reutilization Marketing Office (DRMO) Lakehurst (Navy 1997).

4.18 Medical Wastes

According to the EBS, there are no medical facilities or biohazardous waste generators at MCRC West Trenton (Malcolm Pirnie 2002). However, according to facility personnel (Woodhead 2006), the MCRC West Trenton does produce medical waste (i.e., sharps and bandages) which is transported to Fort Dix for disposal.

4.19 Hazardous Materials

Hazardous materials stored at MCRC West Trenton include the vehicle maintenance materials such as: oils, gasoline, antifreeze, lubricants, and solvents. The hazardous materials are stored in the flammable storage locker or in the vehicle maintenance facility (**Figure 4-2**).

4.20 Summary of Environmental Conditions

Environmental conditions at MCRC West Trenton consist of the following:

- Due to the age of initial building construction (approximately 1953), it is likely that lead paint was used at the MCRC West Trenton and could still be present.
- The site overlies an USEPA-designated sole source aquifer.



- A finger of deciduous wooded wetlands is mapped in the northwest corner of the property (**Figure 4-5**).

Additionally, circa 2000 a new fence was installed around the property boundary of the facility. In 2001, the Engineering Field Activity Northeast (EFANE) received a letter from Advance Realty Group asserting that the fence line at the West Trenton Reserve Center is encroaching on land in which they have a long-term lease from Mercer County. The Government had a professional survey performed to verify the property boundary. According to this survey, the reserve center fence line does not follow the property boundary. The fence is off between 59.7 and 78.5 feet to the south of the property and off approximately 17.5 feet along the southeasterly portion of the property. Regarding the north and west sides of the property, the fence is within the Government's boundary, approximately 80.5 feet and 18.5 feet, respectively.

Based on the information reviewed, there are no locations on the property that have established land use restrictions that need to be maintained when MCRC West Trenton is transferred to other private and public entities.



5.0 Certification

I certify that the Environmental Conditions of Property Report for the Marine Corp Reserve Center, West Trenton, New Jersey, April 12, 2006 and its enclosures were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information contained within the Environmental Conditions of Property Report for Marine Corp Reserve Center, West Trenton, New Jersey, April 12, 2006 and its enclosures is, to the best of my knowledge and belief, true, accurate and complete and accurately reflects the property's condition as of April 12, 2006 based upon my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information.

DAVID DROZD

Name

David Drozd

Signature

5-8-06

Date



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TABLES



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Table 4-1. Asbestos Results MCRC West Trenton

Room	Location	Sample Number	Percent Asbestos	Estimated Quantity
Boiler	Tank Insulation - large boiler	661815	70	226 ft ²
		661816	70	
		661817	75	
Boiler	Tank Insulation - small boiler	661818	70	130 ft ²
		661819	70	
		661820	70	
Boiler	Tank Insulation - heat exchanger	661821	59	48 ft ²
		661822	52	
		661823	52	
Boiler	Tank Insulation - hot water tank	661824	70	100 ft ²
		661825	70	
		661826	75	
Boiler	8" pipe covering on LPS/R	661827	42	140 lf
		661828	37	
		661829	36	
Boiler	8" MJP on pipe covering	661830	70	60 lf
		661831	55	
		661832	56	
Boiler	4" cardboard pipe covering	661833	12	340 lf
		661834	16	
		661835	22	
Boiler	4" MJP on cardboard	661836	40	84 lf
		661837	60	
		661838	50	
Boiler	Hardwall plaster at ceilings	661839	0	1320 ft ²
		661840	0	
		661841	0	
Boiler	9" x 9" VFT	900	21 assumed	21 ft ²
Boiler	9" x 9" mastic	901	15 assumed	21 ft ²
Boiler	Firebrick	902	5 assumed	100 ft ²
Boiler	Stored ceiling tiles	661842	0	400 ft ²
		661843	0	
		661844	0	
Weld Shop	Breeching	661845	70	350 ft ²
		661846	70	
		661847	75	
Basement Corridor	Duct Insulation	661848	50	448 ft ²
		661849	70	
		661850	65	
Weight Room	1' x 1' acoustical tile	661851	0	3820 ft ²
		661852	0	
		661853	0	
Janitor Closet	MJP of aircell pipe covering on DW	661854	60	18 lf
		661855	60	
		661856	70	



Table 4-1. Asbestos Results MCRC West Trenton

Room	Location	Sample Number	Percent Asbestos	Estimated Quantity
Janitor Closet and Battery Room	4" aircell on DW	661857	5	26 lf
		661858	70	
		661859	65	
Sewer Pump Room and Weight Room	4" MJP on nonsuspect pipe covering on LPS/R	661860	0	12 lf
		661861	0	
		661862	0	
Weight Room and Men's Room	4" MJP on nonsuspect pipe covering on DW	661863	0	228 lf
		661864	0	
		661865	0	
North Stairwell, South Stairwell, West Stairwell	MJP on 4", 6", and 8" pipe covering	661866	70	199 lf
		661867	70	
		661868	35	
Main Power Room, North Stair Well, South Janitor Closet	Pipe covering of 4", 6", 8" on LPS/R	661869	70	353 lf
		661870	52	
		661871	70	
North Stair Well, Main Power Room	4" and 6" cardboard pipe covering on DW	661872	5	745 lf
		661873	0	
		661874	9	
Stairwell	4" and 6" MJP on cardboard DW	661875	65	144 lf
		661876	70	
		661877	70	
Basement Classroom and Weight Room	Hardwall Plaster	661878	0	2530 ft ²
		661879	0	
		661880	0	
Battery Room	Old drywall	661881	0	1100 ft ²
		661882	0	
		661833	0	
Armory North Wall	New drywall	661884	0	276 ft ²
		661885	0	
		661886	0	
Boiler Room	Breeching	661887	80	345 ft ²
		661888	80	
		661889	80	
Basement	9" x 9" VFT vinyl flooring	903	21 assumed	7204 ft ²
Basement	9" x 9" mastic	904	15 assumed	7204 ft ²
Basement	Baseboard mastic	905	15 assumed	420 ft ²
Basement	Cinder block mortar	906	10 assumed	1250 ft ²
Basement	Fire doors	907	70 assumed	112 ft ²
First Floor North End Men's Room	Cardboard pipe covering on 4" DW	661893	20	24 lf
		661894	14	
		661895	8	
First Floor North End Men's Room	4" MJP on cardboard pipe covering	661896	70	6 lf
		661897	65	
		661898	70	



Table 4-1. Asbestos Results MCRC West Trenton

Room	Location	Sample Number	Percent Asbestos	Estimated Quantity
First Floor North End Men's Head	4" and 6" mudded joint packing on DW nonsuspect pc	661899	0	123 lf
		661900	0	
		661901	0	
First Floor Main Passageway	4" mudded joint packing on nonsuspect pc low pressure supply return	661902	0	6 lf
		661903	0	
		661904	0	
Admin Office XO Office CO Office	Hardwall plaster	661905	0	1400 ft ²
		661906	0	
		661907	0	
Room 105A Room 108B Room 108	Drywall	661908	0	4830 ft ²
		661909	0	
		661910	0	
Room 105A Room 108B Room 108	Drywall Joints	661911	0	283 ft ²
		661912	0	
		661913	0	
S End Officer's Head N Passageway Marine Offices	Duct Insulation	661914	55	594 ft ²
		661915	50	
		661916	55	
First Floor	Baseboard mastic	908	15 assumed	2265 ft ²
First Floor	9" x 9" VFT	909	21 assumed	8542 ft ²
First Floor	9" x 9" mastic	910	15 assumed	8542 ft ²
Room 106 Sick Bay Room 109	1' x 1' Acoustical tile	661917	0	4897 ft ²
		661918	0	
		661919	0	
Room 111 Room 111A Room 111	2' x 2' Ceiling tile	661920	0	450 ft ²
		661921	0	
		661922	0	
Room 113A	2' x 4' Ceiling tile Type 2	661923	0	120 ft ²
		661924	0	
		661925	0	
Room 109	2' x 4' Ceiling tile Type 1	661926	0	1150 ft ²
		661927	0	
		661928	0	
Room 105 Room 106	2' x 4' Ceiling tile Type 4	661929	0	2565 ft ²
		661930	0	
		661931	0	
Navy CO office Navy XO office	2' x 4' Ceiling tile Type 3	661932	0	450 ft ²
		661933	0	
		661934	0	
First Floor	Mortar	911	10 assumed	68 ft ²
First Floor	Cinder block mortar	912	10 assumed	180 ft ²
First Floor	Tile Grout	913	10 assumed	340 ft ²



Table 4-1. Asbestos Results MCRC West Trenton

Room	Location	Sample Number	Percent Asbestos	Estimated Quantity
Second Floor	Duct Insulation	661935	50	790 ft ²
		661936	60	
		661937	55	
North Men's Head	4" and 6" MJP on non-suspect DW pipe covering	661938	0	102 lf
		661939	0	
		661940	45	
Marine Recruiter Office Classroom	1' x 1' acoustical tiles	661941	0	3451 ft ²
		661942	0	
		661943	0	
Second Floor Classroom	Drywall	661944	0	7040 ft ²
		661945	0	
		661946	0	
Second Floor Classroom	Drywall joints	661947	0	425 ft ²
		661948	0	
		661949	0	
Second Floor	9" x 9" VFT	914	21 assumed	9536 ft ²
Second Floor	9" x 9" mastic	915	15 assumed	9536 ft ²
Second Floor Large Classroom	Hardwall Plaster	661950	0	960 ft ²
		661951	0	
		661952	0	
Second Floor	Baseboard mastic	916	15 assumed	660 ft ²
Second Floor	Cinder block mortar	917	10 assumed	60 ft ²
Roof	Tar	661953	0	13000 ft ²
		661954	0	
		661955	0	
Roof	Tar sealant at flashing	662121	0	200 ft ²
		662122	0	
		662123	0	
Office	Debris	662124	0	800 ft ²
		662125	0	
		662126	0	
Hall and Lobby	6" MJP on nonsuspect pc low pressure steam	662127	0	35 lf
		662128	0	
		662129	0	
Boiler	Debris hard plaster	662139	0	10 ft ²
		662140	0	
		662141	0	

Source: Navy 1990.

Notes:

lf = linear feet

ft² = square feet



Table 4-2. Radon Results MCRC West Trenton

Building	Room	Location	Detector #1	Detector #2	Date Placed	Date Removed	Detector #1 pCi/L	Detector #2 pCi/L	Average pCi/L	Comments
Communications	Armory		4267951		2/9/99	2/10/00	<0.5			
Communications	B01		4304638		2/9/99	2/10/00	<0.5			
Communications	B02	Locker	4304738		2/9/99	2/10/00	0.8			
Communications	B03		4267776		2/9/99	2/10/00	<0.5			
Communications	B04	Galley	4305010		2/9/99	2/10/00	0.7			
Communications	B06		4304969	4304847	2/9/99	2/10/00	<0.5	0.5	<0.5	
Communications	B07		4304744		2/9/99	2/10/00	NA			Lost
Communications	B10	W4.6	4304675		2/9/99	2/10/00	0.5			
Communications	B11		4268083		2/9/99	2/10/00	<0.5			
Communications	B14	W4.5	4304813		2/9/99	2/10/00	<0.5			
Communications	B15	W4.5	4304731		2/9/99	2/10/00	0.8			
Communications	Boiler		4267829		2/9/99	2/10/00	0.5			
Communications	Elevator	Shaft Left Side	4304636	4304871	2/9/99	2/10/00	1.7	1.7	1.7	
Communications	Hall	At B10 E-Panel	4304971		2/9/99	2/10/00	0.6			
Communications	Head		4268017		2/9/99	2/10/00	0.9			
Communications	Stairs	East End	4304791		2/9/99	2/10/00	<0.5			
Communications	Stairs	West End	4267812		2/9/99	2/10/00	2.0			
Communications	Supply	WHSE W3.9	4304679		2/9/99	2/10/00	0.5			
Communications	Supply	WHSE 2 W4.6	4304947		2/9/99	2/10/00	1.4			
Maintenance	Bay 1		4312335	4349627	2/9/99	2/10/00	NA	NA	NA	Lost
Maintenance	Office		4349635		2/9/99	2/10/00	NA			Lost
Maintenance	Tool		4349583		2/9/99	2/10/00	NA			Lost

Source: DOE 2001.
NA = Not Available



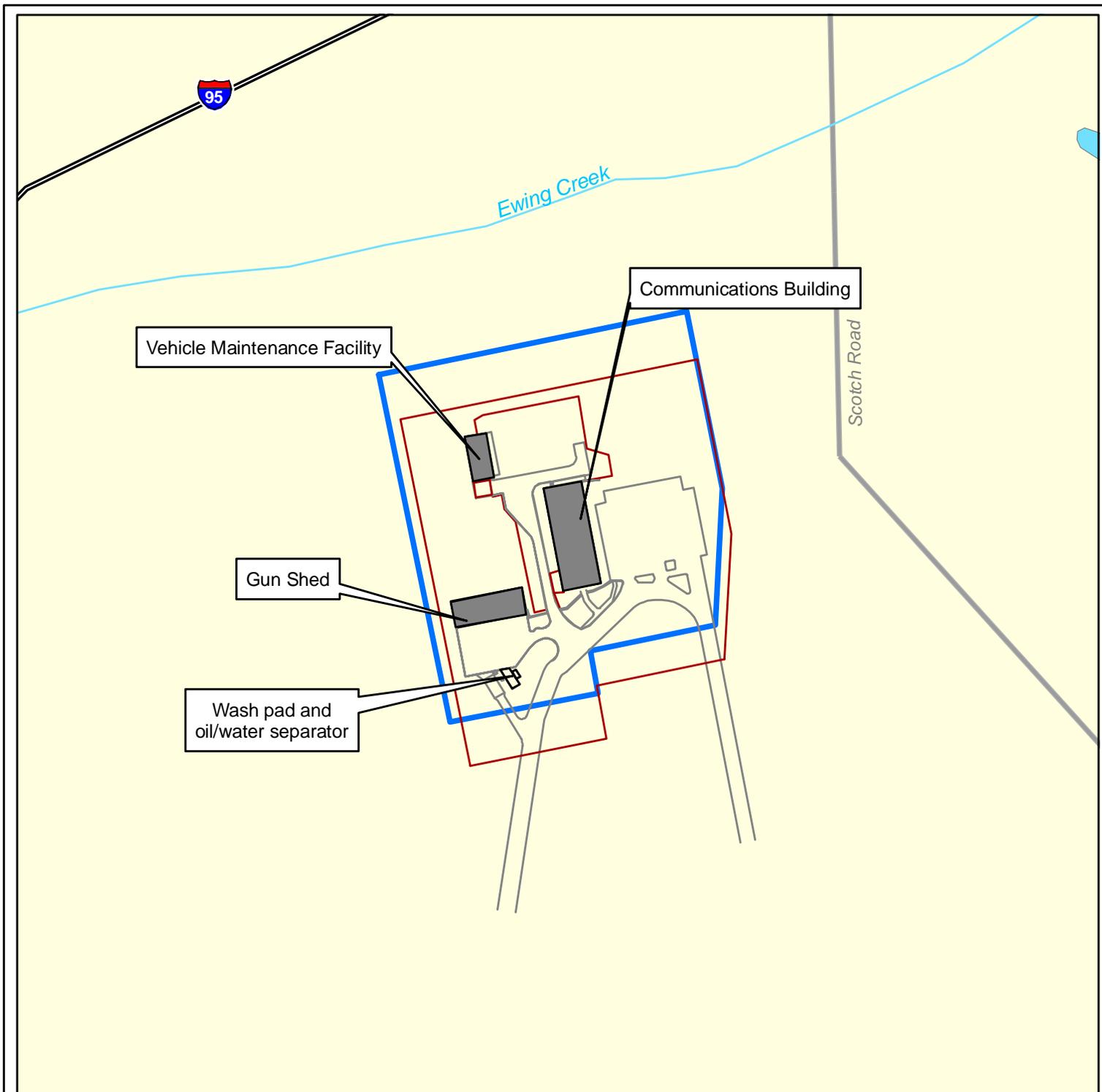
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FIGURES



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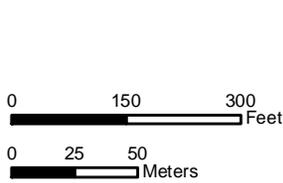
LEGEND

-  Site Boundary
-  Highway
-  Major Road
-  Fencing
-  Buildings



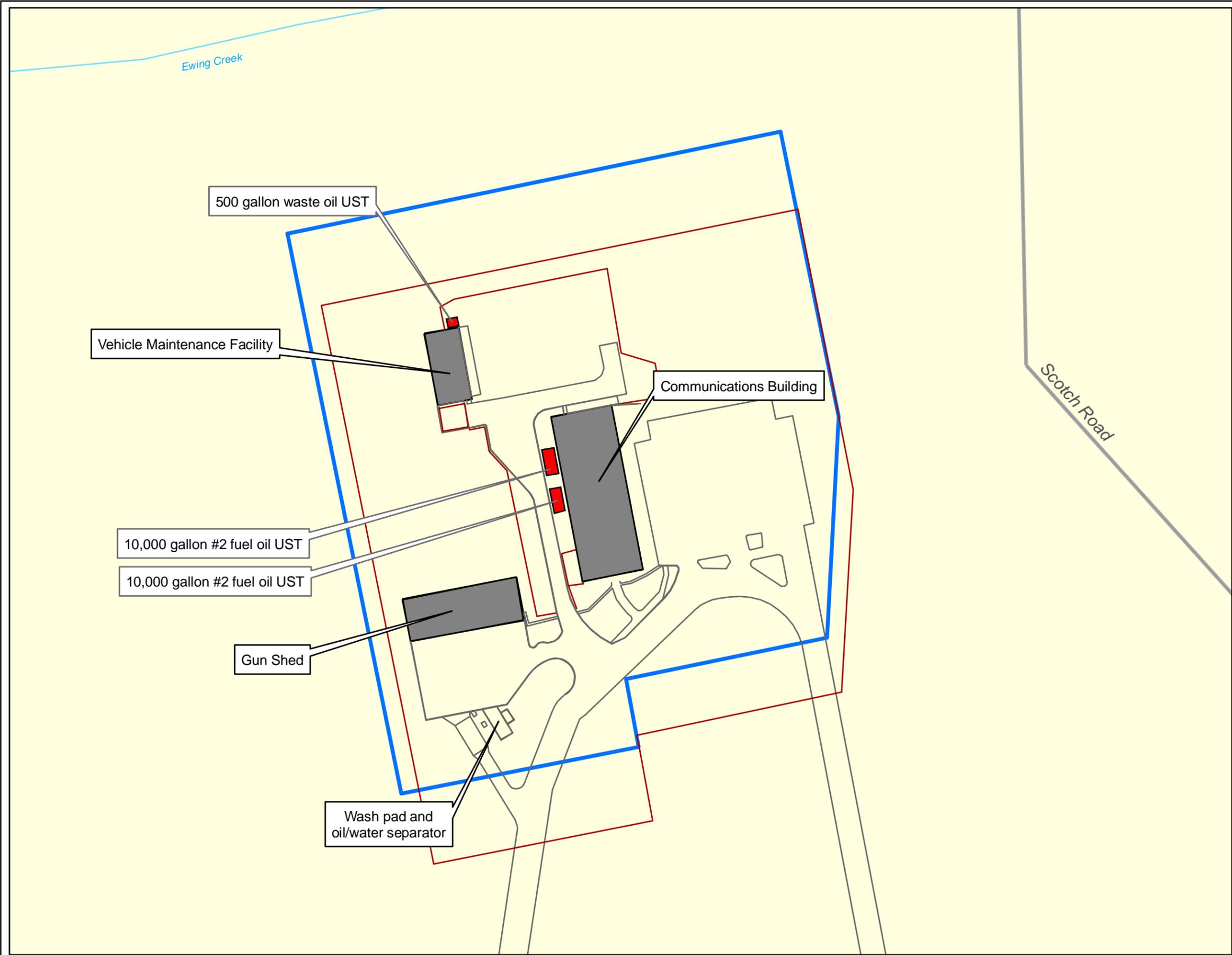
NOTES & SOURCES
 Coordinate System: NAD 83, State Plane New Jersey
 Data Sources: NJDEP GIS 2006, Taylor 2001

MCRC
 West Trenton, NJ



SITE LOCATION MAP

FIGURE
 3-1



TITLE

FORMER UST LOCATIONS

Marine Corps Recruiting Center
West Trenton, NJ

LEGEND

-  Site Boundary
-  Major Road
-  Fencing
-  Buildings
-  Former Underground Storage Tanks



NOTES & SOURCES

Coordinate System: NAD 83, State Plane New Jersey
Data Sources: JMT 1997

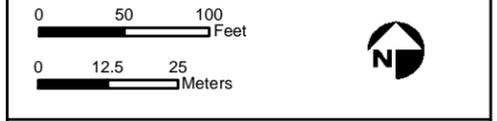
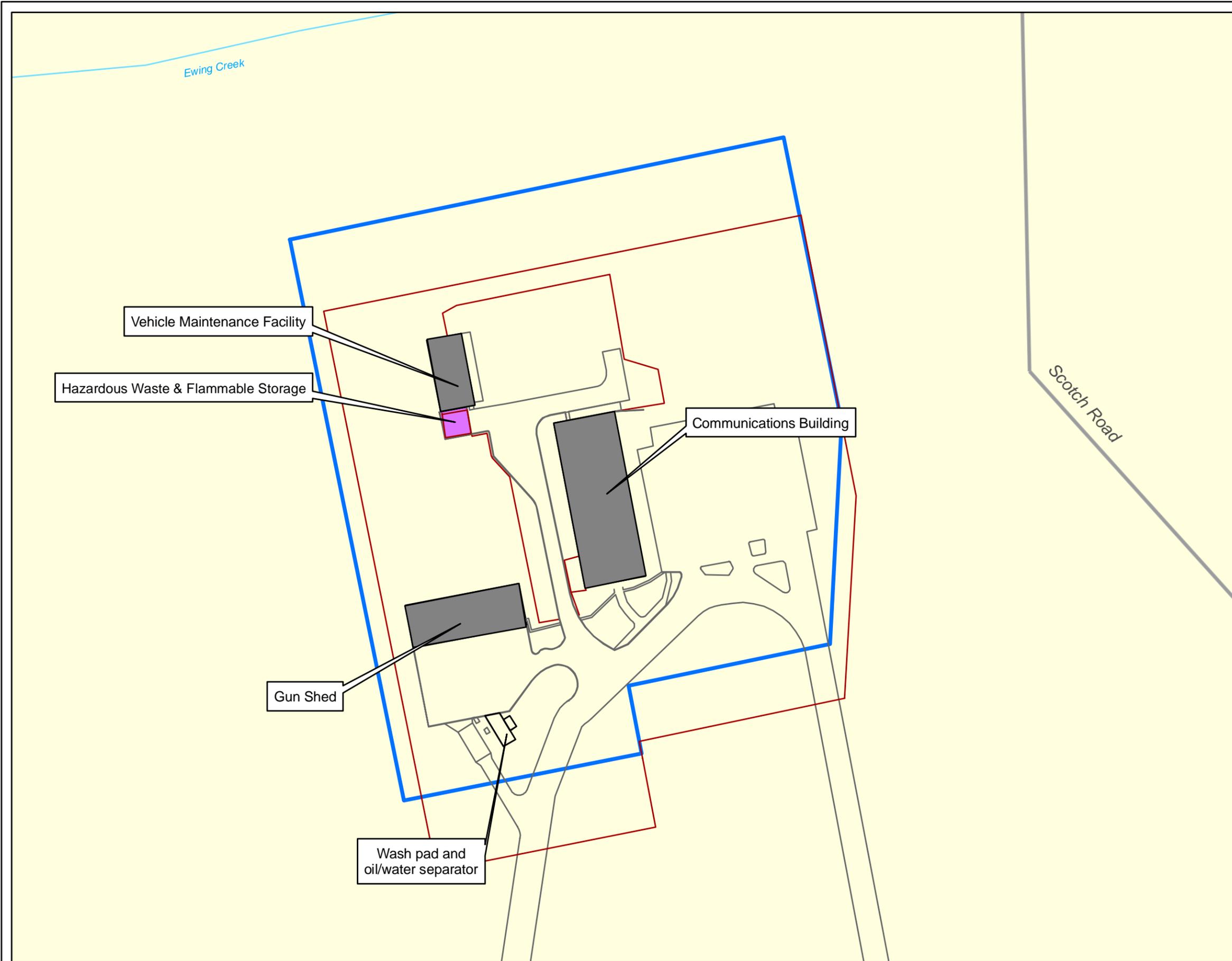



FIGURE
4-1



TITLE

HAZARDOUS WASTE & FLAMMABLE STORAGE

Marine Corps Recruiting Center
West Trenton, NJ

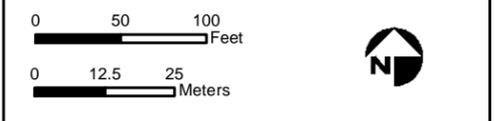
LEGEND

-  Site Boundary
-  Major Road
-  Fencing
-  Buildings
-  Hazardous Waste & Flammable Storage



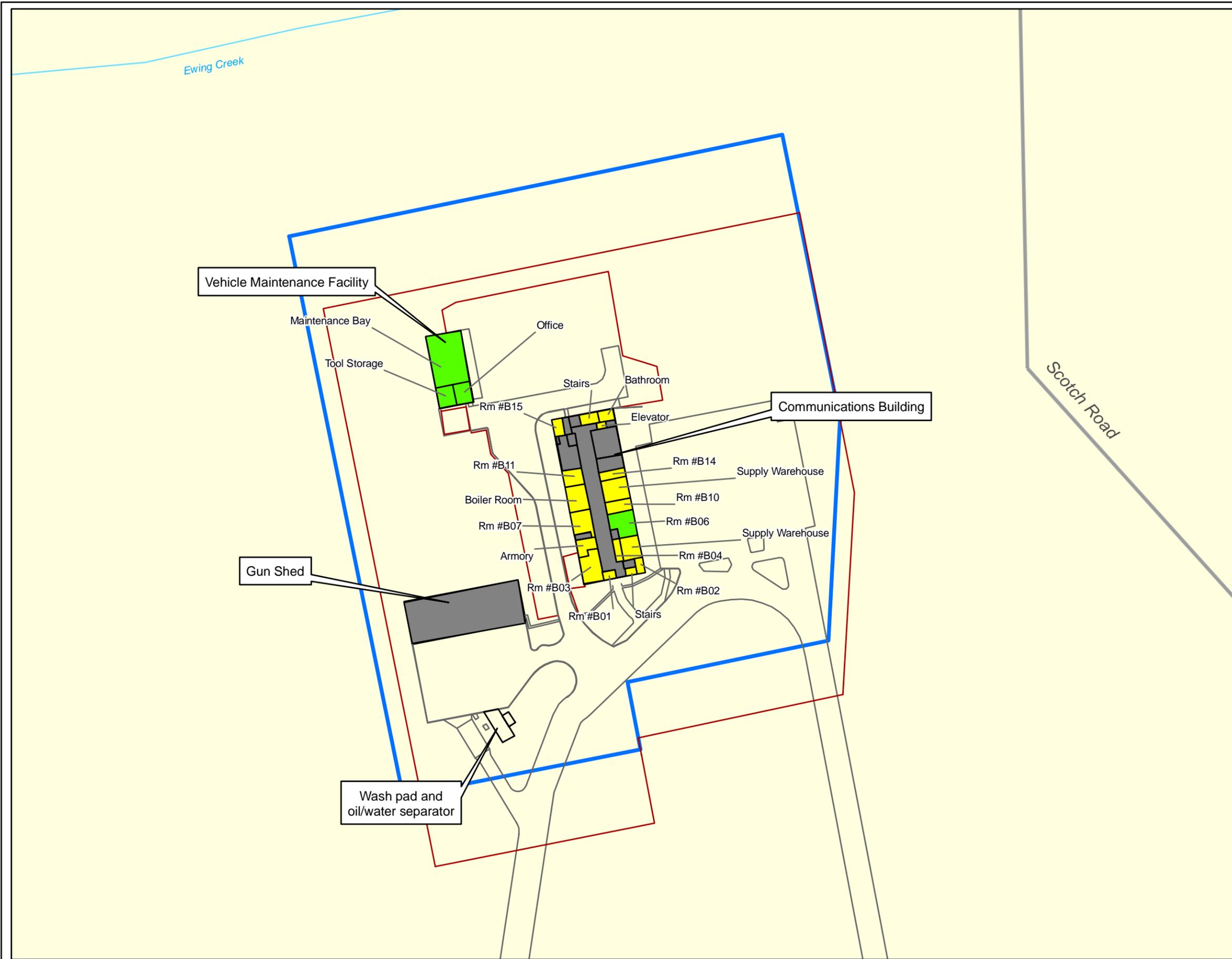
NOTES & SOURCES

Coordinate System: NAD 83, State Plane New Jersey
Data Sources: Woodhead 2005




FIGURE

4-2



TITLE

RADON SAMPLE LOCATIONS

Marine Corps Recruiting Center
West Trenton, NJ

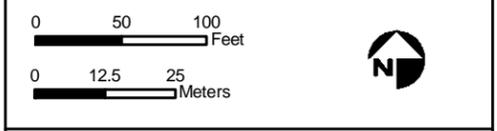
LEGEND

- Site Boundary
- Major Road
- Fencing
- Buildings
- Radon Result
- Radon Sample Lost



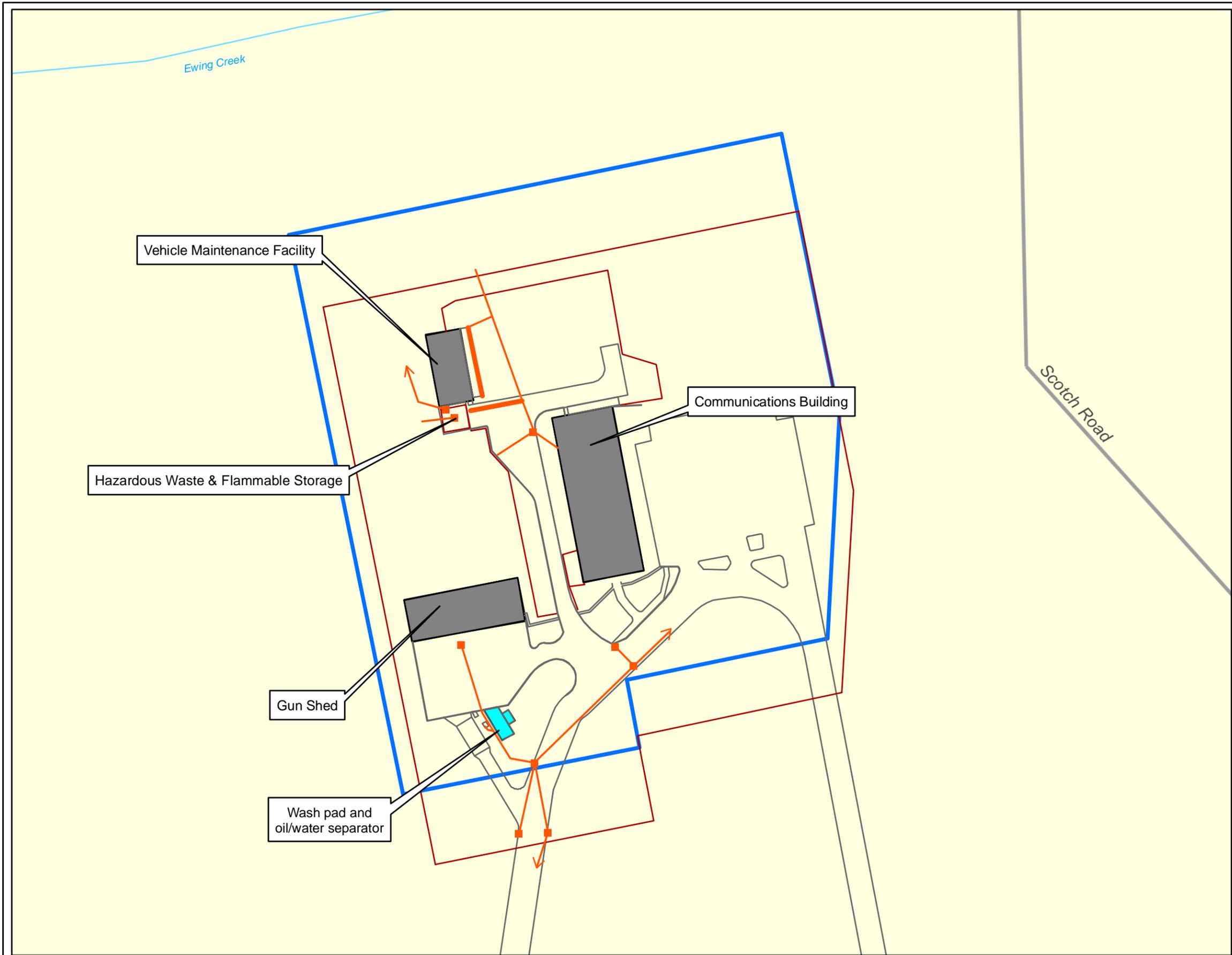
NOTES & SOURCES

Coordinate System: NAD 83, State Plane New Jersey
Data Sources: DOE 2001




FIGURE

4-3



TITLE

STORMWATER SYSTEM

Marine Corps Recruiting Center
West Trenton, NJ

- LEGEND**
-  Site Boundary
 -  Major Road
 -  Fencing
 -  Buildings
 -  Wash pad and oil/water separator
 -  Stormwater Lines
 -  Trench Drains
 -  Storm Inlets



NOTES & SOURCES

Coordinate System: NAD 83, State Plane New Jersey
Data Sources: Quad Three Group 1997; Kling 1997

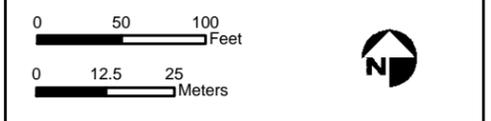
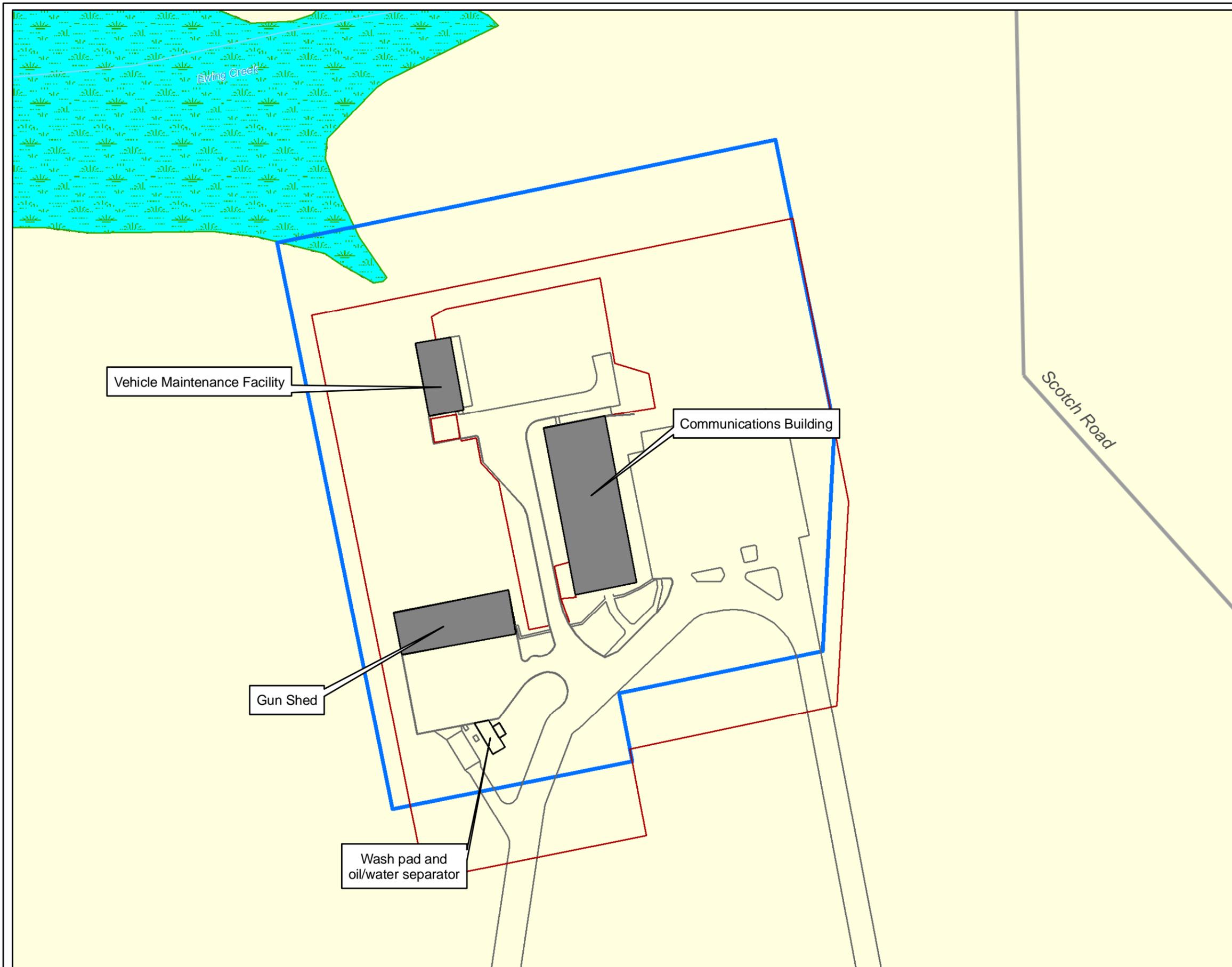



FIGURE
4-4



TITLE

**WETLANDS
(PLANNING LEVEL ONLY)**

Marine Corps Recruiting Center
West Trenton, NJ

LEGEND

-  Wetlands (Deciduous Wooded)
-  Site Boundary
-  Major Road
-  Fencing
-  Buildings



NOTES & SOURCES

Coordinate System: NAD 83, State Plane New Jersey
Data Sources: NJDEP GIS 2006

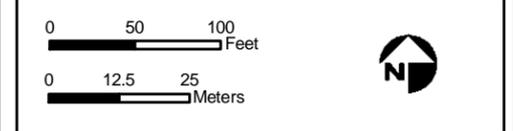
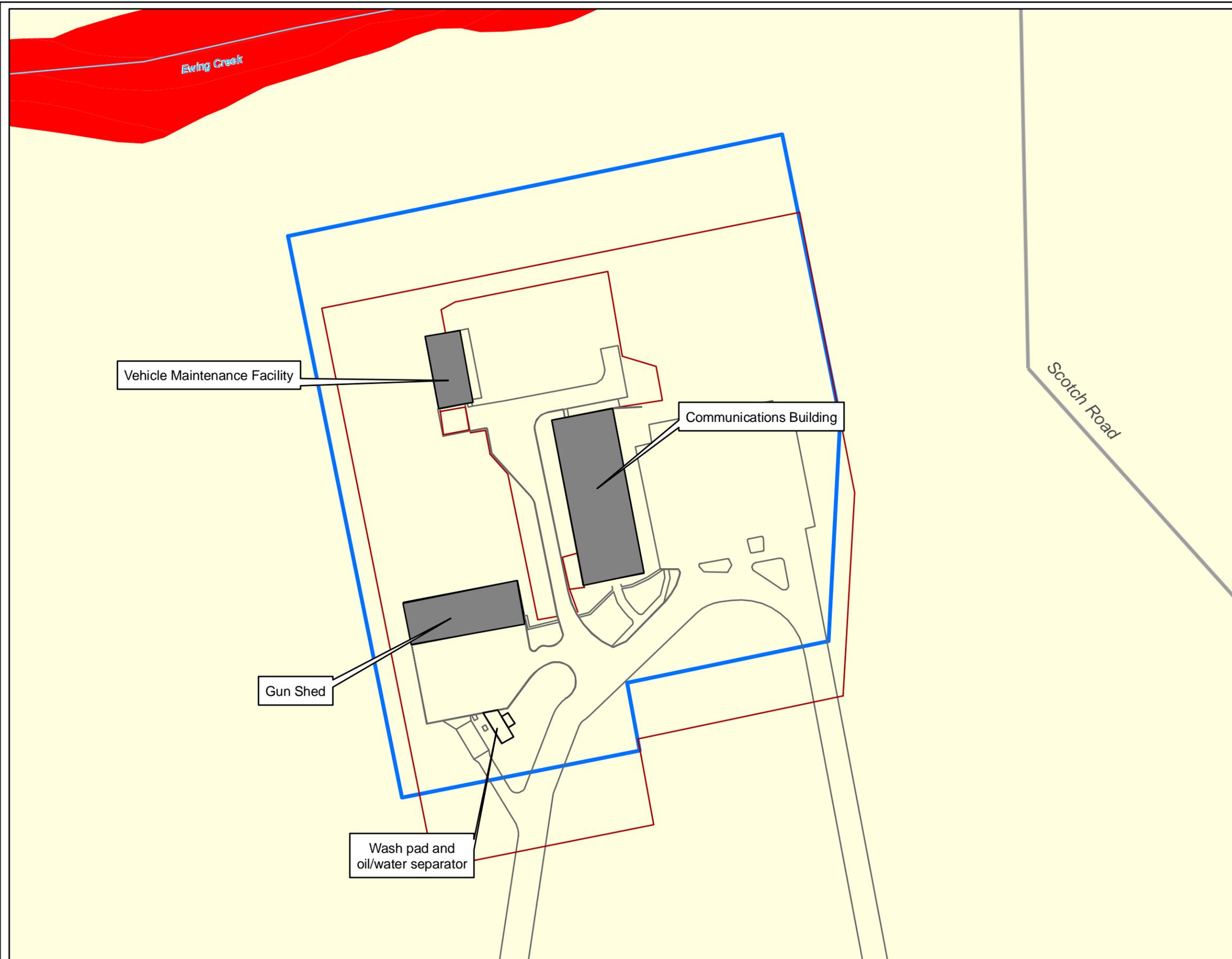



FIGURE
4-5



TITLE

FEMA FLOOD MAP

Marine Corps Recruiting Center
West Trenton, NJ

LEGEND

FEMA Q3 Zones
 An area inundated by 100-year flooding, for which Base Flood Elevations have been determined

Site Boundary

Major Road

Fencing

Buildings



NOTES & SOURCES

Coordinate System: NAD 83, State Plane New Jersey
 Data Sources: FEMA 2006

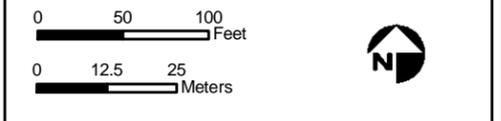



FIGURE
4-6



APPENDIX A

References



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APPENDIX B

List of Contacts



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APPENDIX B List of Contacts

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