

Final

**U.S. Army Base Realignment and Closure 2005
Environmental Condition of Property Report
Fort McPherson, Fulton County, Georgia**



25 January 2007

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List of Acronyms and Abbreviations

The following lists of acronyms, abbreviations, and definitions are intended to be comprehensive and are contained in this ECP Report.

ACM	Asbestos-Containing Material
AMSL	above mean sea level
AR	Army Regulations
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BRAC	Base Realignment and Closure
CAP	Corrective Action Plan
CCC	Civilian Conservation Corps
CECOM	U.S. Army Communications Electronics Command
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CORRACTS	Corrective Action Reports
DEH	Directorate of Engineering and Housing
DENTAC	Dental Activity
DIO	Directorate of Industrial Operations
DIS	Directorate of Installation Support
DoD	U.S. Department of Defense
DOL	Department of Labor
DPCA	Directorate of Personnel and Community Activities
DPDO	Defense Property Disposal Office
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
EBS	Environmental Baseline Survey
ECAS	Environmental Compliance Assessment System
ECP	Environmental Condition of Property
EDR	Environmental Data Resources, Inc.
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act

List of Acronyms and Abbreviations (Continued)

EPIC	Environmental Photographic Interpretation Center
ERNS	Emergency Response Notification System
ESI	Expanded Site Investigation
FORSCOM	U.S. Army Forces Command
FTG	Fort Gillem
FTMP	Fort McPherson
GA EPD	Georgia Department of Natural Resources, Environmental Protection Division
HMMS	Hazardous Material Management System
HWMP	Hazardous Waste Management Plan
IRP	Installation Restoration Program
LUST	Leaking Underground Storage Tank
m	meter
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MEC	Munitions and Explosives of Concern
MEDDAC	Medical Activity
MMRP	Military Munitions Response Program
MS4	Small Municipal Separate Storm Sewer System
NARA	National Archives and Records Administration
NFRAP	No Further Response Action Planned
NG	National Guard
NPL	National Priorities List
OWS	Oil/Water Separator
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
pCi/L	picoCuries per liter
PMAPS	Photomaps USA
PX	Post Exchange
RAATS	RCRA Administrative Action Tracking System
RAM	Radioactive Materials
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RQ	Reportable Quantity

List of Acronyms and Abbreviations (Continued) _____

SAP	Satellite Accumulation Points
SHWS	State Hazardous Waste Site
SI	Site Investigation
SQG	Small Quantity Generator
SSTS	Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act
SWPPMP	Stormwater Pollution Prevention and Management Plan
TCE	Trichloroethene
TMP	Transportation Motor Pool
TRIS	Toxic Chemical Release Inventory System
TSD	Treatment, Storage, and Disposal
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAEHA	U.S. Army Environmental Hygiene Agency
USARC	U.S. Army Reserve Command
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USGS	U.S. Geological Survey
UST	Underground Storage Tank
UW	Universal Waste
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
VSI	Visual Site Inspection
WWI	World War I
WWII	World War II

1 Definitions

Term	Definition
Base Closure Law	The provisions of Title II of the Defense Authorization Amendments and Base Closure and Realignment Act (Pub. L. 100-526, 102 Stat. 2623, 10 U.S.C. § 2687 note), or the Defense Base Closure and Realignment Act of 1990 (Pub. L. 101-510, Part A of Title XXIX of 104 Stat. 1808, 10 U.S.C § 2687 note).
BRAC Environmental Coordinator (BEC)	An employee assigned to provide work as the lead BRAC environmental coordinator for a wide variety of technical situations and activity operational requirements, directing actions with regard to schedules, priorities, methods, materials, and equipment. The role of the BEC is to provide principal oversight for the Activity Base Commander, Lead Organization, and BRACD regarding all BRAC related environmental programs for the installation.
Closure	All missions of the installation have ceased or have been relocated. All personnel positions (military, civilian and contractor) have either been eliminated or relocated, except for personnel required for caretaking, conducting any on-going environmental cleanup, and disposal of the base, or personnel remaining in authorized enclaves. In the context of this document, this may be referred to as “full closure.”
Chemical Warfare Materials	Items generally configured as a munition containing a chemical compound that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. Chemical Warfare Materials (CWM) includes V- and G-series nerve agents or H-series (mustard) and L-series (lewisite) blister agents in other-than-munition configurations; and certain industrial chemicals (e.g., hydrogen cyanide (AC), cyanogen chloride (CK), or carbonyl dichloride (called phosgene or CG)) configured as a military munition. Due to their hazards, prevalence, and military-unique application, chemical agent identification sets (CAIS) are also considered CWM. CWM does not include: riot control devices; chemical defoliants and herbicides; industrial chemicals (e.g., AC, CK, or CG) not configured as a munition; smoke and other obscuration producing items; flame and incendiary producing items; or soil, water, debris or other media contaminated with low concentrations of chemical agents where no CA hazards exist.
Discarded Military Munitions	Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of, consistent with applicable environmental laws and regulations. (10 U.S.C. 2710(e)(2))
Disposal	Per AR 405-45 , any authorized method of permanently divesting the Army of control of and responsibility for real estate and real property.
Environmental Baseline Survey (EBS)	A process by which a characterization of the environmental condition of a facility or property is conducted. An EBS is required by the Army for the transfer or acquisition of real property and identifies potential cleanup requirements and liabilities. See definition for Environmental Condition of Property (ECP).

Definitions (Continued)

Term	Definition
Environmental Condition of Property (ECP)	A management approach for providing efficient and effective development of a comprehensive environmental condition / liability characterization for a facility or property. The ECP process applies industry best practices and standards; provides effective oversight and quality assurance, and unifies the EBS and the (MEC) Archives Search Report steps taken in prior BRAC rounds into a unified effort. The ECP is based on the Initial Site Investigation (ISI) project approved by the Business Initiative Council (BIC). The Army's ECP Report meets DoD's ECP Report requirement.
Excess Real Property	Per AR 405-45 , any real property under the control of any Federal agency that the head of the agency determines is not required for agency needs and discharge of the responsibilities of the agency or the installation where the property is located. The excess status is assigned to the real property once a formal report of excess has been processed. Real property that has been determined excess to the Department of the Army must be screened with other Department of Defense elements before it is excess to Department of Defense.
Garrison Commander	Per General Order 4, 22 August 2002, Garrison commanders, on behalf of the regions and the IMA, will have a responsibility to provide a standard level of base support to installation customers listed on the Army Stationing and Installation Plan. The Garrison commander is responsible to ensure that training support and training enabler functions and activities are responsive to the needs of the senior mission commander on the installation in the execution of the senior mission commander's duties.
Installation	Per AR 405-45 , an aggregation of contiguous or near contiguous, common mission-supporting real property holdings under the jurisdiction of or possession controlled by the Department of the Army or by a State, commonwealth, territory, or the District of Columbia, and at which an Army unit or activity (Active, Army Reserve, or Army National Guard) is assigned. An installation is a single site or a grouping of two or more sites for the purposes of real property inventory control. The real property accountability officer is at the installation level.
Installation Commander	Per AR 600-20 , the installation commander is normally the senior commander on the installation. In addition to mission functions, the installation commander has overall responsibility for all real estate, facilities, base support operations, and activities on the installation.
Lead Organization	Per the BRAC 2005 Implementation Plan Guidance, the Army organization which will have the lead responsibility for preparation of an installation Implementation Plan. This will generally be the Army organization which has operational control of the installation identified in the BRAC recommendations.
Local Redevelopment Authority (LRA)	Any authority or instrumentality established by State or local government and recognized by the Secretary of Defense, through the Office of Economic Adjustment, as the entity responsible for developing the redevelopment plan with respect to the installation, or for directing implementation of the plan.

Definitions *(Continued)*

Term	Definition
Material Potentially Presenting an Explosive Hazard (MPPEH)	Material potentially containing explosives or munitions (e.g., munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris); or material potentially containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization or disposal operations). Excluded from MPPEH are munitions within DoD's established munitions management system and other hazardous items that may present explosion hazards (e.g., gasoline cans, compressed gas cylinders) that are not munitions and are not intended for use as munitions.
Military Installation	Per Section 2910 of Title XXIX, Defense Base Closure and Realignment Act of 1990, as amended , the term "military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the Department of Defense, including any leased facility. This term does not include any facility used primarily for civil works, rivers and harbors projects, flood control, or other projects not under the primary jurisdiction or control of the Department of Defense.
Munitions Constituents	Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. 2710(e)(3)). MEC includes Unexploded Ordnance (UXO), as defined in 10 U.S.C. 2710(e)(9) ; Discarded Military Munitions (DMM), as defined in 10 U.S.C. 2710(e)(2) ; and munitions constituents (e.g., TNT, RDX) present in high enough concentration to pose an explosive hazard.
Munitions and Explosives of Concern	This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks, means: <ul style="list-style-type: none"> (A) Unexploded Ordnance (UXO), as defined in 10 U.S.C. 2710(e)(9); (B) Discarded military munitions (DMM), as defined in 10 U.S.C. 2710(e)(2); or Munitions constituents (e.g., TNT, RDX) present in high enough concentrations to pose an explosive hazard.

Definitions (Continued)

Term	Definition
Military Munitions	<p>Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges; and devices and components thereof.</p> <p>The term does not include wholly inert items; improvised explosive devices; and nuclear weapons, nuclear devices, and nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed. (10 U.S.C. 101(e)(3))</p>
Personal Property	<p>According to 41 CFR 102-36.40, personal property is defined as: "Any property except real property. The term excludes records of the Federal Government, and naval vessels of the following categories: battleships, cruisers, aircraft carriers, destroyers, and submarines." "Related personal property" means any personal property that is an integral part of real property. It is:</p> <ul style="list-style-type: none"> • Related to, designated for, or specifically adapted to the functional capacity of the real property and removal of this personal property would significantly diminish the economic value of the real property, or • Determined by the Administrator of General Services to be related to the real property
Real Property	<p>AR 405-90: Real property consists of lands and improvements to land, buildings, and structures, including improvements and additions, and utilities. It includes equipment affixed and built into the facility as an integral part of the facility (such as heating systems), but not movable equipment (such as plant equipment). In many instances, this term is synonymous with 'real estate.'</p>
Realignment	<p>Any action that both reduces and relocates functions and DoD civilian personnel positions, but does not include a reduction in force resulting from workload adjustments, reduced personnel or funding levels, skill imbalances, or other similar cause. A realignment may terminate the DoD requirement for the land and facilities on part of an installation. That part of the installation shall be treated as "closed," and in the context of this document referred to as a "partial closure."</p>

Definitions (Continued)

Term	Definition
Senior Mission Commander	The Senior Mission Commander is a General Officer (G.O.) with command oversight of one or more non-G.O. Installation Commanders. The Senior Mission Commander conveys MACOM mission priorities to the Installation Commander, and provides executive oversight and communicates installation management priorities not established by HQDA or IMA to the Installation Commander and Garrison Commander. Senior Mission Commanders' orders from the General Officer Management Office (GOMO) will specify the installations for which they will serve as SMC.
Special Installation	An Army installation which is under administrative control of ACSIM Installation Management Agency (IMA), yet operated and funded by a MACOM (e.g., Army Ammo Plant, Hospital, etc.) where there is a single Mission/Garrison Commander.
Unexploded Ordnance	Military munitions that (A) have been primed, fused, armed, or otherwise prepared for action; (B) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and (C) remain unexploded whether by malfunction, design, or any other cause. (10 U.S.C. 101(e)(9))

1.0 Executive Summary

This Environmental Condition of Property (ECP) Report has been prepared for Fort McPherson, Georgia, which is hereafter referred to as the “Property.” The purpose of this ECP is to determine the environmental condition of the Property in preparation for a Real Property Disposal as a result of the Base Realignment and Closure (BRAC) 2005 Commission recommendation to close the Property. This ECP was developed in accordance with the Department of Defense (DoD) 4165.66-M, Base Redevelopment and Realignment Manual dated 1 March 2006.

This Executive Summary provides a brief description of the current and former uses of the Property and areas of potential environmental concern that were evaluated during the ECP process. Detailed information associated with the summary presented below is provided in the remaining portion of this document.

Site Description and Historical Use. Fort McPherson is centrally located in the Atlanta metropolitan area approximately 4 miles southwest of downtown and 3 miles north of Atlanta’s Hartsfield International Airport. The Property is roughly rectangular in shape and encompasses approximately 487 acres. It is currently occupied and includes approximately 253 buildings and structures. In addition, the Property includes the Network Enterprise Technology Command. The Network Enterprise Technology Command is leased property measuring approximately 8.4 acres located in Peachtree City, Georgia.

Fort McPherson is an active U.S. Army facility which houses many headquarters and tenant organizations. The Property is the home of the U.S. Army Forces Command (FORSCOM). FORSCOM is responsible for the training and readiness of nearly one million active, Army National Guard and Army Reserve soldiers, providing effective, strategic forces capable of responding rapidly in support of national security. FORSCOM commands the Third U.S. Army and the U.S. Army Reserve Command (USARC), both of which are headquartered at Fort McPherson.

Chronology of events in the facility’s development, administration, and mission is presented below:

- 1885 Congress appropriated funds to establish a permanent military reservation in Atlanta. A site was approved for acquisition and construction.

- 1889 The post was officially designated Fort McPherson (FTMP), in honor of Major General James Birdseye McPherson.
- 1896 Waco Target Range was purchased for FTMP training purposes.
- 1898 FTMP included a recruit training center, a General Hospital, and a prison camp for Spanish prisoners of war.
- 1910 Atlanta National Guard (NG) Target Range was purchased to provide a target range for the National Guard of GA.
- 1917 During World War I (WWI), FTMP was selected as U.S. Army General Hospital No.6.
- 1918 FTMP acquired 136 acres on the south side of the post, which became Camp Jesup and was used for major motor vehicle overhaul operations.
- 1920 FTMP became headquarters for the entire Fourth Corps Area.
- 1933-1942 Civilian Conservation Corps (CCC) major activities occurred at FTMP.
- 1938 Installation acquired the use of the 136-acre Atlanta NG Target Range.
- 1940 Several barracks were converted to a hospital. A 1,000-man recruit reception center was constructed. Plans for a general supply depot were approved. The Quartermaster Motor Transport School was opened.
- 1940 The Waco Target Range was declared surplus.
- 1941 Atlanta NG Target Range was permanently transferred to FTMP.
- 1944-1946 FTMP functioned as a separation center for military personnel discharged from service.
- 1947-1973 FTMP played vital roles throughout the Korean and Vietnam conflicts as a command control center and Headquarters for Third U.S. Army.
- 1974 Atlanta Army Depot was renamed Fort Gillem (FTG) and designated a subinstallation of FTMP.
- Present FTMP provides administrative and logistical contingency support to the major land fighting Army Command headquarters, FORSCOM, Third U.S. Army/U.S. Army Forces Central Command, the U.S. Army Reserve Command, and First U.S. Army

Prior to the construction of Fort McPherson, the Property was mostly pasture land.

The surrounding properties are predominantly residential to the south and west, a mixture of commercial/industrial to the east and a mixture of commercial and residential to the north.

Based on a review of property reports and documentation, a visual site inspection (VSI), research of available historical information, interviews with knowledgeable parties, and an environmental database search, all performed as part of this ECP, the following environmental information has been compiled.

Range Operations. There are six operational ranges at Fort McPherson. With the exception of the Fort McPherson Range, most of the identified training areas had no history of munitions use. Munitions are currently used at the Fort McPherson Range. In 1997 the Fort McPherson Range's impact area was redesigned to maintain environmental compliance. A structure was installed at the Range that directs drainage away from the impact area. Specially designed bricks are positioned in front of the structure to capture and retain bullets and bullet fragments. The bricks are replaced periodically as part of routine range maintenance. A potential lead contamination exists due to range activities prior to the reconstruction of the impact area. The Fort McPherson Range is considered a recognized environmental condition (REC).

Installation Restoration Program. Fort McPherson has an ongoing Installation Restoration Program (IRP) which was initiated in 1980. The IRP has identified 11 sites, designated FTMP-01 through FTMP-11. Eight sites have been closed out of the IRP program and include the following:

- FTMP-01, Bldg 363 Paint Shop
- FTMP-02, Bldg 41 – underground storage tank (UST)
- FTMP-03, Bldg 346 Waste Oil Tank
- FTMP-04, Bldg 346 Oil/Water Separator (OWS)
- FTMP-05, Bldg 370 OWS
- FTMP-07, Bldg 357 Directorate of Engineering and Housing (DEH) Maintenance
- FTMP-08, Bldg 370 Waste Oil Tank
- FTMP-11, Army Parking Lot.

Not all of the site closeouts from the IRP program are reflective of all required actions being taken. In the case of sites FTMP-2, FTMP-3, FTMP-4, FTMP-5, FTMP-7 and FTMP-8, the sites were designated response complete (RC) in the Army database because as petroleum sites, they were not eligible for IRP funding.

Fort McPherson has an ongoing IRP for two sites including:

- FTMP-09, Building 143 Post Exchange (PX) Station
- FTMP-10, Veterinary Clinic/Old PX Gas Station.

Army records indicate that cleanup activities are completed for the Old Incinerator Ash Dumpsite (FTMP-06) and the Army is awaiting a response to the NFA request submitted to the Georgia Department of Natural Resources; Environmental Protection Division (GA EPD).

Four sites: Building 363 (FTMP-01), Building 143 PX Station (FTMP-09), the Veterinary Clinic (FTMP-10) and the Army Parking Lot (FTMP-11) are considered a REC.

Military Munitions Response Program. Four Military Munitions Response Program (MMRP) Sites were identified at Fort McPherson; Atlanta NG Rifle Range, Atlanta NG Target Range (including the former Skeet Range), the Pistol Range and the 300-Yard Target Range. Munitions have historically been used at the former ranges. Two WWI artillery shells were uncovered in the Atlanta NG Target Range. The Atlanta NG Target Range is located on what is now the golf course in the lower southwest corner of Fort McPherson. Historical evidence suggests that the Atlanta NG Target Range was not used as an artillery range. Installation personnel suspected that contaminated fill was used during the construction of the golf course. Potential lead contamination exist for the former Atlanta NG Rifle Range, the former Atlanta NG Target Range that includes the former Skeet Range, and the former Pistol Range. The three ranges are considered a REC.

The area where the former 300-Yard Target Range existed has been extensively redeveloped into a recreation area with pavement covering a portion of the range. The former 300-Yard Target Range is not considered a REC.

Hazardous Substances and Hazardous Waste. Several hazardous substances associated with base operations at Fort McPherson include used solvents, paints, acids and bases, toxins, aerosols, heavy metals, mercury-containing items, and other materials associated with laboratory operations, building and vehicle maintenance. Identified hazardous substances include arsenic, asbestos, chlorine, lead, nickel hydroxide, mercury, urea, and xylene. Fort McPherson tracks and maintains their hazardous materials and chemical inventory data through the Hazardous Material Management System (HMMS). This data is collected on hazardous materials and hazardous waste from all agencies that handle these substances at Fort McPherson for input to the HMMS. Currently hazardous material disposal is reported by various departments and tenants for input into the HMMS system as materials are received and disposed. This information is used to facilitate centralized hazardous material control and management and to assist with environmental reporting.

Fort McPherson operates as a small quantity generator with a Resource Conservation and Recovery Act (RCRA) generator ID number of GA1210020565. Hazardous waste is stored at Fort McPherson in a 90-day yard and various satellite accumulation points (SAP). Under the State of Georgia regulations, SAP cannot accumulate more than 55-gallons at a time and once the amount is exceeded, the excess waste must be moved within 3 days to a 90-day area. After 90 days, the waste must be transported off-Property by licensed hazardous waste transporters. The hazardous substances and hazardous waste storage areas are not considered to be a REC.

Petroleum Substances-USTs/ASTs. Fort McPherson currently has nine active USTs and five active aboveground storage tanks (ASTs), the remaining tanks have either been removed or closed in place. The tanks were primarily used for the storage of fuel oil, gasoline, diesel, and waste oil.

Tanks used for storing heating oil or petroleum products were not regulated prior to 1988. Tanks used for storing heating oil for consumptive use of the premises where stored are excluded from Federal and GA EPD rules regardless of when the tank was installed or removed, including existing heating oil tanks. Although heating oil tanks are not regulated, releases of contaminants into the environment by these tanks are regulated. The following discussion applies to all tanks regulated and non-regulated.

A summary of the available documentation for historic and current tanks at Fort McPherson is as follows:

- During tank removal activities, the tank associated with Building 183 had no evidence of soil contamination.
- During tank removal activities, soil contamination was detected at Building 205 (one [1] tank) and during removal of only one of the tanks at each of Buildings 346 (346-W01) and 370 (370-W01). Contaminated soil was over-excavated. These former UST locations do not constitute a REC.
- During tank removal at Buildings 160 (six [6] tanks) and 164 (one [1] tank), not all contaminated soil could be removed due to the presence of utility lines. Because of residual soil contamination, one monitoring well was installed at each of the two UST sites to confirm or deny the presence of groundwater contamination. Groundwater analytical results were not available for review during the generation of the ECP. The two sites are considered a REC.

- Although one tank at each of Buildings 208 and 302 were reported to have been closed, there was no additional information regarding site conditions during closure activities. The two sites are considered a REC.
- There was no available information regarding the status of the tanks at nine of the UST locations. Buildings 40 (one [1] tank), 104 (one [1] tank), 106 (one [1] tank), 207 (one [1] tank), 214 (two [2] tanks), 302 (two [2] tanks), 326 (one [1] tank), 345/346 (four [4] tanks), and 650 (one [1] tank). These nine UST locations currently constitute a REC.
- Three of the UST sites are managed under the IRP program. These locations include Buildings 105 (two [2] tanks), 143 (five [5] tanks), and 370 (one [1] tank). The UST at Building 370 was removed and contaminated soil was over-excavated. Remedial activities are currently on-going for the USTs at Buildings 105 and 143. Buildings 105 and 143 are currently considered a REC.
- There are currently 9 active USTs at five of the sites. These sites include Building 160 (two [2] tanks), Building 200 (one [1] tank), Building 350 (two [2] tanks), Building 368 (three [3] tanks), and Building 651 (one [1] tank). Except for the tank at Building 200, all the tanks were installed in the 1990s and have shown no evidence of release of petroleum products.
- There were no documented releases for any of the ASTs at Fort McPherson. Visual site inspections of the current ASTs did not reveal any evidence of leaks or spills.
- Documentation of No Further Action concurrence by the GA EPD exists for five of the UST sites. These sites include Buildings 41 (one [1] tank), 200 (one [1] tank), 350 (three [3] tanks), 454 (one [1] tank), and 651 (one [1] tank) and one location where there was a misidentified presence of a UST (Building 101).

Cleanup was conducted at seven of the UST sites (Buildings 105, 143, 200, 302, 350, 454, and 651) at Fort McPherson that are listed in the GA EPD Leaking Underground Storage Tank (LUST) database. The USTs at Buildings 200, 350, 454 and 651 have been granted by the State a ‘no further action’ status. Buildings 105 and 143 are listed as in remediation. The UST at Building 302 was closed and no further information was available regarding site conditions during closure activities.

Oil/Water Separators. Four OWS currently exist on the Fort McPherson property. They are associated with Buildings 336, 350, 353, and 370. Oil/water separators are periodically inspected and cleaned under an oil/water cleaning and maintenance contract. Two former OWS were reportedly removed in 1997. No releases were documented at these former OWS

(Buildings 187 and 345). Visual site inspections of the current OWS did not reveal any evidence of leaks or spills. None of the OWS are considered to be a REC.

PCBs. All transformers with polychlorinated biphenyls (PCBs) concentrations greater than 50 parts per million were replaced and removed from the Property as of January 5, 1987. An additional survey was performed in 2001, and none of the sampled transformers were found to contain PCBs at concentrations above 50 parts per million. In-service transformers with residual PCBs are replaced when they fail. No RECs associated with PCBs were identified as part of this ECP.

Asbestos Containing Materials. Current records indicate there have been several asbestos-containing materials (ACM) surveys conducted for the buildings at Fort McPherson. The surveys have been conducted to identify ACM in place.

- Records indicate that asbestos surveys were conducted for 27 structures.
- Of the 27 structures surveyed, 26 have ACM survey results documentation; 18 were found to have both friable and non-friable asbestos; and 8 were found to have only non-friable asbestos. All structures with reported asbestos (with the exception of Buildings 46, 184 and 352) have an asbestos operation and maintenance plan in place.
- There are 226 buildings on the Fort McPherson property that have no documentation of asbestos surveys performed.

Lead-Based Paint According to the *Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property – A Field Guide* (DoD/EPA, 1999) all residential structures constructed prior to 1979 must be evaluated for lead-based paint. Many of the facilities and buildings at Fort McPherson were constructed before the DoD ban on the use of lead-based paint in 1978 and are likely to contain one or more coats of such paint. Surface dust sampling surveys have been conducted for 102 residential units at Fort McPherson. Of the 102 units tested, 34 had at least one sample that exceeded the Environmental Protection Agency (EPA) limits for a lead-dust hazard. It appears that there were no follow up surveys by the facility. No documentation of lead dust sampling was found for nine family housing buildings (Buildings 20, 22, 27, 28, 168, 475, 476, 512, and 525) constructed prior to 1978. Currently, there is not a comprehensive or programmatic report for the residential housing units on the Property.

Radiological Materials. As reported in the 2007 Historical Site Assessment (Cabrera Services, 2007), three (3) buildings at Fort McPherson were found to be potentially impacted from historical use of radioactive materials (RAM). The buildings and survey areas that were found to be potentially impacted included building Nos. 179, 180, and 363.

Historical Landfills/Dumps. Several disposal pits and burial activities were identified in the reviewed aerial photographs. In a 1944 aerial photograph mounded material was visible in the northwest portion of the Property. The debris was not viewed in later aerial photographs and the area has been redeveloped into a golf course. Debris and mounded material were visible in the southeast portion of the Property in the 1968 and 1978 aerial photographs reviewed. The VSI did not indicate any debris or mounded material in the area. No further information was available regarding the burial activities and disposal pits. These disposal pits are not considered a REC.

The Old Incinerator Ash Dump Site (FTMP-06) is located near the center of Fort McPherson. The area was used for burning trash in open pits and for disposal of solid waste incineration ash. Until the late 1960s, combustible solid wastes were burned daily in open, unlined pits excavated in the area. Burn residue was left in the pits; when a pit became full, it was covered with dirt. Waste materials burned in these pits reportedly included domestic garbage, hospital waste, minor industrial waste, (i.e. waste paints, solvents, oils, etc.) and construction and demolition debris. The Army completed investigation of the Old Incinerator Ash Dump Site and recommended that no further action be taken for the site, therefore, FTMP-06 is not considered a REC.

Explosive Contaminated Structures. Four former magazines were constructed in 1938 for the storage of small arms, chemical munitions, pyrotechnics, trinitrotoluene, and dynamite. The magazines were visible in a general site map dated 1993 but do not appear on the 2000 or 2004 general site map (Malcolm Pirnie, Inc., 2006). One operational magazine is located west of Hedekin Field. The magazine is first shown on a 1904 map of the Property. Currently, blanks for use during Hedekin Field ceremonial events are stored in the magazine. The magazines are not considered a REC.

Radon. According to the EPA's categorization of radon zones, Fulton County, Georgia, is qualified as a radon Zone 1, meaning that it has a predicted average indoor radon screening level greater than 4 picoCuries per liter (pCi/L). The EPA's action level for radon is 4 pCi/L. Radon surveys were conducted for priority buildings at Fort McPherson in 1990 and 1999. All detections for radon were below the 4 pCi/L action level.

Pesticides. Building 341 is currently the location of the pesticide storage and mixing facility; however, pesticide storage and mixing has occurred at a number of other locations including Building 343, 356, 363, and 456. U.S. Army Environmental Hygiene Agency (USAEHA) pest management reviews and Army environmental compliance assessments that have been conducted starting in the 1970s have indicated that pesticide storage and mixing operations were inadequate at Buildings 341, 356, and 456. A VSI conducted at Buildings 341 and 343 did not reveal any environmental concerns. Interviews with installation personnel indicated no recognized environmental conditions. Buildings 356 and 456 are demolished. Buildings 356, 363, and 456 are currently considered a REC.

Adjacent Properties. The surrounding properties are predominantly residential to the south and west, a mixture of commercial/industrial to the east and a mixture of commercial and residential to the north. The adjacent properties are not considered a REC.

Other Issues. Fort McPherson is listed in the Resource Conservation and Recovery Act – Small Quantity Generator (RCRA-SQG) database. There are 19 records of violations reported for Fort McPherson but all have achieved compliance.

Dry cleaning activities involving chlorinated solvents were conducted in Buildings 208/209 and 302. The buildings were demolished between 1988 and 1990. The previous dry cleaning sites are considered a REC.

ECP Parcels. Based on the information gathered during the development of the ECP, areas at the property were grouped into standardized parcel categories using DoD guidance: All areas with positive findings received a unique parcel number and designation of one of the seven ECP categories or qualification as appropriate.

Most of the areas on the Property were identified as “uncontaminated” property (Category 1) comprising approximately 389 acres. These were areas in which no release or disposal of hazardous substances or petroleum products had occurred, and to which there had been no migration of such substances from adjacent areas. Historical records reviewed and the VSI found no indication that the release or disposal of hazardous substances or their derivatives has occurred, including no migration of these substances from adjacent areas at the following properties:

- USTs that had no evidence of contamination (Buildings 183 and 368)

- Former and current oil/water separators
- All AST areas
- Hazardous waste collection areas
- The Lakes (Lakes 1, 2, 3, and 4)
- Most of the buildings on the Property except five buildings; Buildings 208/209 and 302, 356, 363 and 456
- All active training areas except Fort McPherson Range
- The majority of the areas on the Property, Parcel 24(1).

Parcel numbering was assigned to each existing IRP site, non-IRP sites, petroleum release areas and any other identified area of concern as follows:

- **Category 2 - Areas in which only release or disposal of petroleum products has occurred.** Areas measuring approximately 33 acres were classified as category 2 property. Category 2 parcels included UST tank areas where there was evidence of contamination or no information was available regarding the status of the tanks.
- **Category 3 - Areas in which release, disposal or migration of hazardous substances has occurred, but in concentrations that do not require a removal or other remedial response.** There are no Category 3 parcels identified on the Fort McPherson property.
- **Category 4 - Areas in which release, disposal, or migration of hazardous substances has occurred, and all removal or remedial actions to protect human health and environment have been taken.** One IRP site, Old Incinerator Ash Dumpsite, measuring approximately 1 acre was identified as Category 4 property.
- **Category 5 - Areas in which release, disposal, or migration of hazardous substances has occurred, but all removal or other remedial actions necessary to protect human health and the**

environment have not yet been taken. There are no Category 5 parcels identified on the Fort McPherson property.

- **Category 6 - Areas in which release, disposal, or migration of hazardous substances has occurred, but required remedial actions have not yet been implemented.** There are no Category 6 parcels identified on the Fort McPherson property.
- **Category 7 - Areas that have not been evaluated or require additional evaluation.** Areas measuring approximately 64 acres were classified as category 7 property. Category 7 property included Building 363, Paint Shop (FTMP-01), Army Parking Lot (FTMP-11), the former laundry/dry cleaning areas Buildings 208/209 and 302, the pesticide storage areas (Buildings 356, 363, and 456), the Fort McPherson Range, the former Atlanta NG Rifle Range, the former Atlanta NG Target Range (including the former Skeet range), and the former Pistol Range.

2.0 Purpose

2.1 General

The environmental condition of property (ECP) report has been prepared to meet the requirements of Department of Defense (DoD) 4165.66-M, *Base Redevelopment and Realignment Manual*. The Army prepares an ECP for the following purposes:

- Provide the public with information relative to the environmental condition of the property.
- Assist in community planning for the reuse of BRAC property.
- Assist Federal agencies during the property screening process.
- Provide information for prospective buyers.
- Provide information about completed remedial and corrective actions at the property.
- Assist in determining appropriate responsibilities, asset valuation, and liabilities with other parties to a transaction.

The ECP report contains the information required to comply with the provisions of 40 Code of Federal Regulations (CFR), Part 373 that require a notice accompanying contracts for the sale of, and deeds entered into for the transfer of, federal property on which hazardous substances may have been stored, released, or disposed of. A notice is required if certain quantities of designated hazardous substances have been stored on the property for one year or more—specifically, quantities exceeding (1) 1,000 kilograms or the reportable quantity (RQ), whichever is greater, of the substances specified in 40 CFR 302.4, or (2) 1 kilogram of acutely hazardous waste as defined in 40 CFR 261.30. A notice is also required if hazardous substances have been disposed of or released on the property in an amount greater than or equal to the RQ. AR 200-1 requires that an ECP address asbestos, lead-based paint, radon, and other substances potentially hazardous to health.

The ECP report is not prepared to satisfy a real property purchaser's duty to conduct an “appropriate inquiry” to establish an “innocent purchaser defense” to Comprehensive

Environmental Response, Compensation, and Liability Act (CERCLA) 107 liability. Any such use of the ECP by any party is outside the control of the Army and beyond the scope of the ECP. The Army, its officers, employees, or contractors make no warranties or representations that any ECP report satisfies any such requirements for any party.

2.2 Scope

The ECP covers the 487-acre Fort McPherson located in Atlanta, Georgia and the 8.4-acre Network Enterprise Technology Command located in Peachtree City, Georgia. In this ECP report they are referred to as the “Property”. This ECP does not cover subinstallations to Fort McPherson, such as Fort Gillem and Lake Allatoona Recreation Center. The Property encompasses the area that is generally north of Georgia State Highway 166, south of Campbellton Road, west of U.S. Highway 29, and east of Stanton Road. The tract is roughly rectangular in shape and encompasses approximately 487 acres. A site location map is provided as Figure 1, and a current site map is provided as Figure 2.

2.3 Limitations

This ECP report presents a summary of readily available information on the environmental conditions of, and concerns relative to, the land, facilities, and real property assets of the Property. The findings included in the report are based on a record search of documents, and the site reconnaissance conducted between July 6 through 13, 2006. Historical environmental investigation reports and site historical documents were reviewed in support of this ECP.

A representative number of buildings were visually inspected during the site reconnaissance. The VSI included a driving tour of the entire facility and the facility perimeter. Additionally, a systematic survey of the facility on foot was also conducted. Therefore, although not all of the buildings were inspected with the same level of detail, all of the facilities were visualized. All buildings likely to have operations resulting in a recognized environmental condition were thoroughly inspected. Additionally, representative buildings with operational histories that were not expected to result in an environmental condition (i.e. administrative and residential structures) were given a thorough inspection. No sampling or analysis was conducted during this survey.

2.4 Report Organization

The remainder of this report provides details about the ECP setting, method, and findings. The report is organized as follows:

- **Chapter 3.0** describes the methods used to conduct the ECP
- **Chapter 4.0** provides a description of the Fort McPherson environment, an overview of facility operations and history, and a summary of previous environmental investigations
- **Chapter 5.0** elaborates on the findings of the ECP organized by relevant environmental “issues” (e.g., contaminant, contamination matrix, facility or operation)
- **Chapter 6.0** presents the conclusions of the ECP
- **Chapter 7.0** lists the references used in the report.

The appendices are arranged to allow the reader to examine further details concerning environmental issues relating to the Property.

- **Appendix A** provides a listing of the ECP parcels and the 2006 visual site inspection approach summary
- **Appendix B** provides historical information and site background information
- **Appendix C** was reserved for the Sanborn Maps which were not available for the Property
- **Appendix D** provides the Historical Topographic Maps
- **Appendix E** provides the regulatory database report for the Property
- **Appendix F** provides the Jurisdiction Summary
- **Appendix G** provides information from the site interviews
- **Appendix H** provides the Asbestos Survey Database.
- **Addendum 1** provides a copy of the Historical Site Assessment and Addendum to Environmental Condition of Property (Cabrera Services, 2007).

3.0 Survey Methodology

3.1 Development of Study Sections

The information gathered during the development of the ECP was used to group areas at the Property into standardized parcel categories using DoD guidance: All areas with positive findings received a unique parcel number and designation of one of the seven ECP categories or a qualification as appropriate.

The ECP Category definitions (U.S. Department of Army, 1996) are summarized on Table 1.

Table 1
ECP Categories

ECP Category	Definition
1	Areas in which no release or disposal of hazardous substances or petroleum products has occurred, and to which there has been no migration of such substances from adjacent areas.
2	Areas in which only release or disposal of petroleum products has occurred.
3	Areas in which release, disposal or migration of hazardous substances has occurred, but in concentrations that do not require a removal or other remedial response.
4	Areas in which release, disposal, or migration of hazardous substances has occurred, but all removal or other remedial actions necessary to protect human health and the environment have been taken.
5	Areas in which release, disposal, or migration of hazardous substances has occurred, and removal of other remedial actions are under way, but all required actions have not yet been taken.
6	Areas in which release, disposal, or migration of hazardous substances has occurred, but required remedial actions have not yet been implemented.
7	Areas that have not been evaluated or require additional evaluation.

Generally, the numbering was assigned as follows:

- Existing IRP sites (Parcels 1-11)
- Underground storage tanks (USTs) (Parcels 12-19)
- Sites at which former base activities would most likely be a source of potential contamination (Parcel 20)
- The Pistol Range (Parcel 21)

- Pesticide Storage Areas (Parcels 22 and 23)
- The remaining uncontaminated areas (Parcel 24)
- The former Atlanta NG Rifle Range (Parcel 25)
- The former Atlanta NG Target Range including the former Skeet Range (Parcel 26)
- The Fort McPherson Range (Parcel 27)

Qualified Parcels are those parcels that were identified as containing other environmental or safety concerns such as asbestos, lead-based paint, and radionuclides.

The designations for each ECP parcel are presented in Table A-1 (Appendix A).

3.2 Visual Site Inspection

A VSI involving a driving tour of the Property and its perimeter, as well as a systematic survey by vehicle and on foot through each section of the Property, was conducted between July 6, 2006 through July 13, 2006. The primary purpose of the VSI was to verify information obtained from the document review and to identify potential environmental concerns. All accessible roads on the Property were driven during the VSI. All buildings at Fort McPherson were visualized. A VSI was performed for 24 buildings selected as a representative sample from groups of similar buildings. A summary of the buildings visited is included in Table A-2 (Appendix A).

A reconnaissance of the Property perimeter was conducted to evaluate adjacent property uses that could contribute environmental contamination to the site. Typical properties that could pose a contamination risk are dry cleaners, gas stations, and industrial facilities. The findings of the perimeter survey are presented in Section 5.16.

3.3 Aerial Photography Analysis

A comprehensive aerial photographic analysis was conducted as part of this ECP. A complete copy of the 2006 Aerial Photographic Site Analysis (Environmental Research, Inc., 2006), including the photos, is included in Appendix B. Photographs covering the entire Property were obtained and interpreted for the period from 1938 to 1988. Photographs from five separate years were examined under a stereoscope to potentially identify any significant areas of disturbance for the following purposes:

- Potentially identify any anomalies (e.g., large spills/stains, ground scars, debris piles, pits, possible disposal areas, etc.) that were not identified in previous investigations
- Assist in tracking the history of Fort McPherson operations
- Assist in verifying the history, location, and extent of previously identified sites of known or suspected contamination.

While informative, aerial photographs alone are rarely conclusive. Anomalies may be attributable to a number of causes unrelated to environmental concerns. Therefore, the results of the aerial photographic analyses were evaluated and cross-referenced with the following:

- Results of the records review
- Results of previous/ongoing investigations
- Results of the physical site inspections
- Results of interviews with current and former Fort McPherson employees.

Through a combination of the photographic interpretation and the above-listed factors, areas of concern were identified as ECP sites and are discussed in further detail in Chapter 5.0.

Table 2 lists the historical aerial photographs reviewed.

Table 2
Reviewed Aerial Photographs

Date	Agency	Mission, Roll, and Frame Number	Scale
April 1938	NARA	ATJ, 5: 63-65	1:20,000
January 1944	NARA	N/A, 71, 72	1:20,000
December 1949	EPIC		1:7,200
April 1955	EPIC		1:6,000
May 1960	EPIC		1:6,900
December 1968	USGS	VCAX, 2: 247, 248	1:24,800
February 1972	EPIC		1:10,200
April 1978	PMAPS	N/A, 25: 9, 10	1:28,800
January 1988	USGS	NAAP, 717: 144, 145	1:40,000

NARA – National Archives and Records Administration.

EPIC – Environmental Photographic Interpretation Center, Warrenton, VA.

USGS – US Geological Survey.

PMAPS – Photomaps USA, Pinson, Alabama.

The earliest aerial photo (1938) indicated a rifle range was in the southwestern portion of the Property which coincides with the former Atlanta NG Rifle Range. Features such as ground scarring and disturbed ground were visible at a few other locations on the Property.

In the next aerial photo (1944), the rifle range remained in the southwestern portion of the Property, and pits, ground scarring, and mounded material (suggestive of disposal activity) were visible in the northwestern portion. A probable munitions storage facility, probable storage tanks, and most other potentially significant features were identified in the southern half of the Property.

In the subsequent 1968 photo, the rifle range, seen previously in the southwestern portion of the Property, had been replaced by part of a golf course. The Fort McPherson Range had been constructed in the southwestern corner. Containers, debris, and a trench with debris were adjacent to a vehicle and equipment storage area in the southeastern portion of the Property. Fuel pumps and staining were also visible in the vicinity of the vehicle and equipment storage area.

In the next photo dated 1978, the pistol range remained in the southwestern corner of the Property. Probable containers, crates or containers, and multi-toned debris were visible in the area where containers and debris were stored in the open in 1968. Mounded material, probably consisting of rubble or debris, was in the southeastern corner of the Property.

In the subsequent 1988 photographic analysis, a pistol range remained in the southwestern corner of the Property. Containers were in open storage in the same area where they were seen in 1978. A fill area, not present in 1978, was immediately southwest of the central point of the Property.

A previous historical aerial photos analysis was conducted in August 1982 by Environmental Photographic Interpretation Center (EPIC) of Warrenton, Virginia, as part of the initial installation assessment. Aerial photos from 1949, 1955, 1960, and 1972 were analyzed. All analyses were performed with imagery flown at scales between 1:20,000 and 1:24,000. EPIC noted that no munitions testing facilities or industrial activities were observed at the Property throughout the study period. Only two areas of debris and/or open storage were noted and EPIC labeled these areas as “Site 1” and “Site 2.” Solid waste disposal or containment was noted at Site 1 (1949-1960) and Site 2 (1949-1972), in the form of small debris piles. Both of these sites

were noted as being the most disorderly in the 1949 photo. By 1972, Site 1 was completely filled and revegetated and Site 2 was a fenced disposal area.

“Site 1” is in the vicinity of the southern end of the Motor Pool which slopes down to the golf green and “Site 2” is in the vicinity of the new barracks near the center of the site. Both aerial analyses indicated disturbances and possible disposal in these two areas. The “Site 2” area was investigated prior to the barracks construction and the results were documented in the Phase I Remedial Investigation Chemical Data Acquisition Plan (Black & Veatch Waste Science and Technology Corp., 1991). Some organic compounds and metals were identified in the subsurface soil above background concentrations, but did not appear to represent an immediate threat to human health or environment. It was recommended that if the soil was disturbed, adequate precautions should be taken. The investigation was followed up with a focused feasibility study in April 1993. Please reference **Section 5.2.1** of this report for more details.

3.4 Sanborn Map Review

Sanborn maps were not available for Fort McPherson (Appendix C).

3.5 Historical Topographic Map Review

Copies of the historical topographic maps were obtained and reviewed for the Property. Topographic maps were reviewed for five years (1954, 1968, 1973, 1993, and 1997). Copies of the maps are included in Appendix D. The topographic maps provide a general indication of the chronology of building and road construction over the years of coverage.

The topographic maps indicate that the elevation ranges from less than 950 feet above mean sea level (amsl) near the southwestern boundary to greater than 1,050 feet amsl near the northeastern corner. From the highest point in the northeastern corner, the topographic grade primarily slopes downward toward the south and west, in the vicinity of the golf course.

In the earliest topographic map (1954) Fort McPherson was already extensively developed with many buildings and roadways, with the roadways being very similar to the current configuration. Only the larger buildings that were known to be present at that time are depicted on the map. Many of the larger community and administrative buildings in the historic district near the northeastern corner of the site are depicted on the map. Building use is not differentiated on the map; however, historic maps from Fort McPherson provide more details on building construction and use. Perimeter areas to the south and west and along the drainage channel were indicated as

wooded. Some areas within the wooded areas in the west were indicated as being cleared. These cleared areas correlate with areas of use identified in the aerial photography analyses (Section 3.3) as being used as a range.

Off site, the topographic map indicates that the Property is surrounded by urbanized areas in all directions. Just to the southwest is an extensive railroad switching yard with large warehouse-sized buildings. Immediately to the south of the Property is an installation identified as “General Services Administration Warehouses.” Sylvan Hills High School is located near the northeastern corner of the Property.

In the subsequent 1968 topographic map (photorevised from 1954), a few more buildings were indicated in red in the northeastern portion of the site. As far as can be determined, these buildings were primarily refinements to the previous topographic map, since the buildings indicated in red are known to be older historic buildings, many with construction dating to the late 1880s. Therefore, the inclusion of these buildings in 1968 did not necessarily indicate new building construction. Another noted change was that the southwestern third of the Property was a golf course.

No significant changes were noted in the surrounding properties.

In the subsequent topographic map (1973, also photorevised from 1954), no discernable changes can be seen within the Property or the surrounding properties from the 1968 topographic map.

On the 1993 topographic map, details in the northeastern portion of the map have been reduced and the area is shaded gray, denoting dense development. Therefore, no further details can be determined in these areas. The three lakes on the Property are clearly indicated on this map, although they were noted to have been present as early as 1968 from the aerial interpretation (Section 3.3). No notable changes were observed on the surrounding properties from the 1968 and 1973 topographic maps.

No obvious environmental conditions can be determined from the historical topographic map review on either the Property or the immediately surrounding properties.

3.6 Records Review

3.6.1 Standard Environmental Record Sources

A search of state and federal environmental databases was undertaken for the Fort McPherson property and any listed sites within standard search distances. A review of the August 23, 2006, Environmental Data Resources, Inc. (EDR), database report was conducted. The findings of the search are summarized below in Table 3 and the complete search results are provided as Appendix E.

Table 3
Environmental Record Review Summary

Record(s) Source	Number of Sites	Search Distance (miles)
Federal NPL Sites	0	1.0
Federal CERCLIS List	4	0.5
Federal CERCLIS NFRAP List	6	Property and adjoining properties
Federal RCRA CORRACTS Facilities list	3	1.0
Federal RCRA non-CORRACTS TSD Facilities List	3	0.5
Federal RCRA Generators List	19	Property and adjoining properties
Federal RAATS List	1	
Federal TRIS List	2	
Federal SSTS (Section 7)	1	
Federal ERNS list	0	Property only
Georgia State NPL Equivalent	0	1.0
Georgia State CERCLIS Equivalent	3	0.5
Georgia State Landfill and/or solid waste disposal site lists	0	0.5
Georgia State leaking UST lists	18	0.5
Georgia State registered UST lists	30	0.5

NPL – National Priorities List.

CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System.

RCRA – Resource Conservation and Recovery Act.

NFRAP – No further response action planned.

CORRACTS – Corrective Action Report.

TSD – Treatment, storage, and disposal.

RAATS – RCRA Administrative Action Tracking System

TRIS – Toxic Chemical Release Inventory System

SSTS – Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act

ERNS – Emergency Response Notification System.

Fort McPherson was identified in the DoD, Facility Index System, Resource Conservation and Recovery Act Small Quantity Generator (RCRA-SQG), LUST, UST, and State Hazardous Waste Site (SHWS) databases searched by EDR.

A total of 44 other facilities were identified within the search radius of the Property that appeared on the public databases provided by EDR.

3.6.1.1 National Priorities List

The National Priorities List (NPL) is the EPA's list of the most serious, uncontrolled or abandoned, hazardous waste sites identified for possible long-term remedial action under the Superfund program.

No NPL sites were identified within a 1-mile radius of Fort McPherson.

3.6.1.2 Comprehensive Environmental Response, Compensation, and Liability Information System

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is an EPA database of known or suspected, uncontrolled or abandoned hazardous waste sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to CERCLA.

Four sites within a ½-mile radius of Fort McPherson are currently listed in the CERCLIS database. These sites include the Murphy Avenue Drum Site (1230 Murphy Avenue), Brenntag Mid-South, Inc. (2225 Lawrence Drive), Southern Wood Piedmont Company (1745 Connally), and PPG Industries Incorporated (1377 Oakleigh Drive). According to the assessment history for the Murphy Avenue Drum Site, a discovery was reported on 3 June 1994 leading to an immediate emergency removal. This action, completed 9 April 1998, effectively removed potential contamination sources from the site. The assessment history for Brenntag Mid-South, Inc. indicated an emergency removal action on 16 December 2004. According to the records search, the Southern Wood Piedmont Company and PPG Industries both have discoveries reported 1 August 1980. The preliminary assessment for the Southern Wood Piedmont Company was completed 1 September 1982, with a site inspection as of 28 August 1989. The preliminary assessment for PPG Industries was completed 17 September 1985, with a site inspection as of 1 January 1990. Both of these sites were ultimately deferred to RCRA Subtitle C. None of the four sites listed by CERCLIS are located upgradient of Fort McPherson.

The CERCLIS database identifies five additional sites designated as No Further Response Action Planned within a ½-mile radius of Fort McPherson. These sites include 3M Dynacolor East Point (2043 Lawrence Avenue), Champion Building Products (2135 Lawrence Avenue), Sun Chemical Corporation (2247 Lawrence Road), International Paper (2323 N. Sylvan Road), and the William C. Meredith Company, Inc. (2335 Lawrence Street). The discovery for 3M Dynacolor East Point was filed 1 August 1980 with a preliminary assessment on 23 September 1986. The site inspection was completed and site archived on 9 March 1990. A discovery was made on 1 June 1981 at Champion Building Products, and site assessments were conducted on 1 September 1982 and 17 June 1985. The site was inspected and archived on 18 January 1990. For Sun Chemical, the discovery was completed 1 July 1980 with a preliminary assessment filed 27 August 1985. The site inspection was finished and site archived on 19 September 1989. The assessment history for International Paper indicates a discovery on 1 October 1980 and archival after a preliminary assessment on 20 May 1986. For the William C. Meredith Company, a discovery was completed 1 November 1979 and a preliminary assessment was completed 1 December 1979. The site inspection was completed 2 June 1989, and the site was archived on 1 January 1997.

3.6.1.3 RCRA Corrective Action

RCRA Corrective Action Sites (CORRACTS) is a list of handlers with RCRA corrective action activity.

Three facilities within one mile of Fort McPherson are listed in CORRACTS, none of which are located upgradient of Fort McPherson. These include the Southern Wood Piedmont Company, PPG Industries Incorporated, and the William C. Meredith Company. After an RFI Imposition on 8 November 1988, migration of contaminated groundwater from the Southern Wood Piedmont Company was verified as under control as of 30 September 1999. According to the summary of corrective actions discovered in the records search, PPG Industries had an RFI imposed on 27 August 1989. Since that date, migration of contaminated groundwater from the site was verified as under control as of 8 October 1998 and a corrective measures design was approved as of 19 July 2000. According to the summary of corrective actions discovered in the records search, an RFI workplan was approved for the William C. Meredith Company facility on 14 August 1991. Migration of contaminated groundwater from this site has not yet been confirmed as corrected, although 11 February 1993 was set as a date for remedy selection.

3.6.1.4 RCRA Treatment, Storage, and Disposal Facilities

The RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. RCRA notifiers are sites that have filed notification forms with the EPA, in accordance with RCRA requirements, regarding their generation, storage, transportation, treatment, or disposal of hazardous waste.

Three RCRA treatment, storage, and disposal facilities were identified within ½-mile of Fort McPherson, including the Southern Wood Piedmont Company, PPG Industries, and the William C. Meredith Company. None of these sites are located upgradient of the Property, and therefore do not constitute concerns.

3.6.1.5 RCRA Generators

The RCRA program identifies large quantity generators (LQG) and tracks hazardous waste from the point of generation to the point of disposal. LQG generate 1,000 kilograms or more per month of hazardous waste. RCRA notifiers are sites that have filed notification forms with the EPA, in accordance with RCRA requirements, regarding their generation, storage, transportation, treatment, or disposal of hazardous waste.

Five RCRA LQG facilities adjoining Fort McPherson were identified in the records review, including Brenntag Mid-South, Inc., the Southern Wood Piedmont Company, PPG Industries, the William C. Meredith Company, and the Kraft Foods Global, Inc. Atlanta Bakery (1400 Murphy Avenue SW). None are located upgradient of the Property, and all are currently in compliance. The Southern Wood Piedmont Company has records of 17 reported violations, PPG Industries has had 56 reported violations, and the William C. Meredith Company has had 45 reported violations. No violations have been reported at either Brenntag Mid-South or the Kraft Atlanta Bakery.

The RCRA program identifies SQG and tracks hazardous waste from the point of generation to the point of disposal. SQG generate more than 100 kilograms but less than 1,000 kilograms per month of hazardous waste. RCRA notifiers are sites that have filed notification forms with the EPA, in accordance with RCRA requirements, regarding their generation, storage, transportation, treatment, or disposal of hazardous waste.

The RCRA-SQG database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the RCRA. A total of 13 RCRA

SQG facilities listed in the database were identified within a ¼-mile radius of the Property, as follows:

Facility	Address
USA Fort McPherson	Lee St.
3M Dynacolor East Point	2043 Lawrence Avenue
Champion Building Products, Champion Int'l	2135 Lawrence Avenue
Sun Chemical Corporation	2247 Lawrence Street
International Paper	2323 N. Sylvan Road
Champion International Corporation	840 Woodrow Street
Ellison Pioneer Heddle and Ree	1374 Murphy Avenue
Van Den Bergh Foods Company	1591 Murphy Avenue
Southern Saw Service, Inc.	1594 Evans Drive
Central Food Management	1870 Murphy Avenue
Southeast Atlantic Corporation	1910 Murphy Avenue SW
Arrow Shirt Company, Atlanta Plant	2022 Murphy Avenue
Courier Dispatch	1340 Milledge Street

Fort McPherson is listed in the RCRA-SQG database. There are 19 records of violations reported for Fort McPherson but all have achieved compliance. A list detailing the violations can be found in Appendix E. Additionally, one violation has been reported at Ellison Pioneer Heddle and Ree, but it is crossgradient and currently in compliance. Due to the small quantity of hazardous materials located at the above listed facilities and the facilities' regulatory status, none are currently considered recognized environmental conditions.

3.6.1.6 RCRA Administration Action Tracking System

The RCRA Administration Action Tracking System (RAATS) contains records based on enforcement actions issued under RCRA and pertaining to major violators. It includes administrative and civil actions brought by the United States Environmental Protection Agency. The source of this database is the U.S. EPA.

One facility, the Southern Wood Piedmont Company, was listed in the RAATS database. The facility is located downgradient of the Property and is not currently considered an environmental concern.

3.6.1.7 Department of Defense Sites

Department of Defense (DoD) sites consist of federally owned or administered lands, administered by the DoD, than have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

USA Fort McPherson (Lee St.) is identified as a DoD site.

3.6.1.8 Toxic Chemical Release Inventory System

The Toxic Chemical Release Inventory System (TRIS) identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

Two TRIS sites were identified within the search radius, PPG Industries and the Kraft Atlanta Bakery. None of the facilities are located upgradient of the Property and are therefore not currently considered recognized environmental conditions

3.6.1.9 Section 7 Tracking System

Section 7 of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, requires all registered pesticide-producing establishments to submit a report to the EPA by 1 March each year. Each establishment must report the types and amounts of pesticides, active ingredients, and devices being produced, and those having been produced and sold or distributed in the past year.

One Section 7 Tracking System site was identified within a ½-mile radius of Fort McPherson. It is listed as Burris Chemical, Inc. (2225 Lawrence Avenue). No records of violations were found in association with this facility. Due to the facility's regulatory status, the facility is not considered a recognized environmental condition.

3.6.1.10 Other Federal ASTM Supplemental Records

No properties were identified by EDR within the Federal search radius for the following supplemental federal records: CONSENT, ROD, MLTS, MINES, FUDS, INDIAN RESERV, UMTRA, US ENG CONTROLS, UST INST CONTROL, US BROWNFIELDS, ODI, TSCA, ICIS, ERNS, HMIRS, PADS, and FTTS.

3.6.1.11 Underground Storage Tanks

The State of Georgia UST database contains an inventory of registered USTs. A total of 30 UST facilities were identified within a ¼-mile radius of Fort McPherson. Sites listed in the UST database are as follows:

Facility	Address
Fort McPherson Bldg. 105	105 Hardee Avenue
Fort McPherson Bldg. 143	143 Walker Drive
Fort McPherson Bldg. 302 / Dry Clean	302 Patton Plaza
Fort McPherson Bldg. 41	Building 41
Fort McPherson Bldg. 164	164 Cumming Drive
Fort McPherson Bldg. 160 / Boiler	160 Bate Circle
Fort McPherson Bldg. 302	302 Lee Street
Fort McPherson Bldg. 350	350 Walker Drive
Fort McPherson Bldg. 454	454 Miller Drive
Fort McPherson Bldg. 207	207 Hardee Avenue
Fort McPherson Bldg. 326	326 Wilson Avenue
Fort McPherson Bldg. 200	200 Sayers Street
Fort McPherson Bldg. 368	368 McGee Street
Fort McPherson Bldg. 214	214 N. Second Street
Fort McPherson Bldg. 101	101 Lewis Circle
Champion International Corporation	840 Woodrow Street
Central Food Management	1870 Murphy Avenue
Southeast Atlantic Corporation	1910 Murphy Avenue SW
Courier Dispatch	1340 Milledge Street
Chevron Food Mart #4	1722-A Campbellton Road
Atlanta Fire Station #14	1203 Lee Street SW
Latter Day Saints Site	1185 Van Buren Street SW
Sawyer Alternator & Starter	1397 Campbell Road
Fire Station #28	2040 Main Street
Packaging Corporation of America	3200 Lakewood Avenue
US Plywood Corporation	2135 Lawrence Avenue
Samson Tours	1295-1320 Milledge Road
Davidson-Kennedy Company	7195 Victory Drive SW
Expand-O Distribution Warehouse	2110 Lawrence Street
Colonial Hills Christian School	2134 Newnan Street

Of the 30 listed USTs, 17 were documented as having a recorded release by the State regulatory agency and are discussed in the section below.

3.6.1.12 Leaking Underground Storage Tanks

LUST records contain an inventory of reported incidents involving LUSTs. Seventeen of the sites are listed on the LUST database and are as follows:

Facility	Address
Fort McPherson Bldg. 101	101 Lewis Circle
Fort McPherson Bldg. 105	105 Hardee Avenue
Fort McPherson Bldg. 143	143 Walker Drive
Fort McPherson Bldg. 200	200 Sayers Street
Fort McPherson Bldg. 302 / Dry Clean	302 Patton Plaza
Fort McPherson Bldg. 350	350 Walker Drive
Champion International Corporation	840 Woodrow Street
Courier Dispatch	1340 Milledge Street
Stanton Road Citgo	2048 Stanton Road
Otter Shop #001	2139 Main Street
Atlanta Fire Station #14	1203 Lee Street SW
Latter Day Saints Site	1185 Van Buren Street SW
Sawyer Alternator & Starter	1397 Campbell Road
Facility	Address
Fire Station #28	2040 Main Street Packaging
Corporation of America	3200 Lakewood Avenue
US Plywood Corporation	2135 Lawrence Avenue
Samson Tours	1295-1320 Milledge Road

Three of the off-site LUST sites have been granted a “no further action” status by the State. Eight of the off-site LUST sites do not have a “No Further Action” status and are located either downgradient or crossgradient to Fort McPherson. The eight sites are as follows:

Facility	Address
Champion International Corporation	840 Woodrow Street
Courier Dispatch	1340 Milledge Street
Stanton Road Citgo	2048 Stanton Road
Otter Shop #001	2139 Main Street
Fire Station #28	2040 Main Street
Packaging Corporation of America	3200 Lakewood Avenue
US Plywood Corporation	2135 Lawrence Avenue
Samson Tours	1295-1320 Milledge Road

Six of the LUST sites are located on the Property (Buildings 101, 105, 143, 200, 302, and 350) and are described in detail in Section 5.2.3.

3.6.1.13 Hazardous Site Inventory

The SHWS database contains records that are the state equivalent to CERCLIS. SHWS sites are priority sites planned for cleanup using state funds and are identified along with sites where potentially responsible parties will pay for cleanup.

The Army Fort McPherson Incinerator was listed on the SHWS database. Additionally, the Southern Wood Piedmont Company and ESB Incorporated (1246 Allene Avenue SW) are SHWS sites located within 1 mile of Fort McPherson.

3.6.1.14 Solid Waste Facilities/Landfill Sites

Solid Waste Facilities/Landfill Site records typically contain an inventory of solid waste disposal facilities or landfills in the state. Depending on the state, these might be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D, Section 4004 criteria for solid waste landfills or disposal sites. The state database maintains an inventory of the solid waste facilities in the state.

There are no Solid Waste Facilities/Landfill Sites within a ½-mile radius of Fort McPherson.

3.6.1.15 Other State ASTM Supplemental Records

Georgia Non-Hazardous Site Inventory. The Non-Hazardous Site Inventory database contains property listing that have reported contamination of soil or groundwater under the Georgia Hazardous Site Response Act. These sites were not placed on the Georgia Priority List because their hazard evaluation scores did not exceed the threshold levels established for sites posing an imminent threat to health or the environment.

There are 16 Georgia Non-Hazardous Site Inventory Sites located within a 1-mile radius of Fort McPherson. They are listed as follows:

Facility	Address
Brenntag Mid-South, Inc.	2225 Lawrence Avenue
3M Dynacolor East Point	2043 Lawrence Avenue
International Paper	2323 N. Sylvan Road
Champion International Corporation	840 Woodrow Street
Burris Chemical Inc.	2225 Lawrence Avenue
Bernstein Scrap Metal (Former)	1006 Murphy Avenue
Superior Associates	1135 Sylvan Road

Recycling Industries of Atlanta
McGean-Rohco, Inc.
Campbellton Plaza Dry Cleaners
Shamrock Garden Apartments
3232 Lakewood Avenue
Burriss Chemical / US Plywood Site
2165 Lawrence Street
Warehouse
Converters Ink Company

972 Avon Avenue
1314 Murphy Avenue SW
2076 Campbellton Road SW
1988 Plaza Lane
3232 Lakewood Avenue
2135 Lawrence Street
2165 Lawrence Street
2181 Sylvan Road
2247 Lawrence Road

A release of tetrachloroethene was reported at Shamrock Garden Apartments on 1 July 1998. Lead contamination was reported at 3232 Lakewood Avenue on 1 August 2000, and at Bernstein Scrap Metal on 1 October 2001. A release of sulfuric acid and ammonia at 2165 Lawrence Street was reported on 1 September 2000. A release of benzene and xylenes was reported at McGean-Rohco, Inc. on 1 March 2001. A release of vinyl chloride and arsenic at the Burriss Chemical / US Plywood Site and a release of vinyl chloride and acetone at Brenntag Mid-South were reported on 3 July 2003.

A date of 1 September 1998 was reported for Champion International Corporation; however, the contaminants were not reported. A date of 1 February 1999 was reported for Recycling Industries of Atlanta, but the contaminants involved were not reported. One entry for Superior Associates, one entry for Burriss Chemical, one entry for the 2181 Sylvan Road warehouse, two entries for Converters Ink Company, two entries for Campbellton Plaza Dry Cleaners, two entries for International Paper, and two entries for 3M Dynacolor East Point were found in the records search, but all lacked date and contaminant information.

Georgia Spills Database. The Spills Database comes from the Georgia Department of Natural Resources and is an Emergency Response Incident Reporting System for oil and hazardous material spills and releases.

There are three Georgia Spills Database sites located within a 1-mile radius of Fort McPherson, including the Southern Wood Piedmont Company, the Kraft Atlanta Bakery, and the Burriss Chemical / US Plywood Site (2135 Lawrence Street). These facilities currently pose no concern to Fort McPherson due to their distance or topographic position.

Permitted Air Facilities. The Aerometric Information Retrieval System Database lists one facility within the search area, the William C. Meredith Company. However, no further information is provided.

Tier 2. The Tier 2 database lists facilities which store or manufacture hazardous materials and submit a chemical inventory report. One Tier 2 site, the Packaging Corporation of America at 3200 Lakewood Avenue, was identified within a ½-mile radius of Fort McPherson.

A search of state and federal environmental databases was also conducted for the leased property (Network Enterprise Technology Command) located at 700 Westpark Drive, Peachtree City, Georgia. The subject property was reported on the RCRA-SQG database and was listed under the facility name of Siemens Electromechanical Components, Inc. No violations were reported for the facility. The ECP team contacted the ACE contractor regarding the facility. He stated that the Siemens Electromechanical Components, Inc. was a former tenant of the building. The database indicates that there are two underground storage sites located within the search distance. Based on the regulatory status as UST sites with no confirmed releases, the two sites do not appear to be of significant environmental concern to the subject property. The complete search results are provided as Appendix E.

3.6.2 Additional Record Sources

Reasonably accessible Army environmental documents, county and city records, and aerial photographs of the property were reviewed to investigate land uses at the site. Local authorities were contacted to learn about historic uses of buildings and lands on the site. Available information on past land uses and their potential impacts was assessed. Other documents and resources of historical import that were used include the following:

- Readily available records and files documenting where hazardous materials are stored and used on site (a summarized list is included in Chapter 5.0)
- Proof of ownership documentation, via acquisition deeds and property maps were obtained through the Fort McPherson Real Property Division and were reviewed to ascertain the historic use of the property. This inquiry included a search for recorded deeds, leases, mortgages, easements, and other appropriate documents. A copy of the proof of ownership documentation is presented in Appendix F
- Files at the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) were reviewed for documents addressing human health matters

- Environmental documents and files at the U.S. Army Environmental Center
- Historical documents and maps at the National Archives and Records Administration (NARA) (College Park, Maryland) which were obtained in January 2006 by another consultant (Malcolm Pirnie, Inc., 2006)
- Historical documents and maps at the 12 Regional Research Centers, which was researched in January 2006 by another consultant (Malcolm Pirnie, Inc., 2006)
- Copies of permit applications and any notices of violations concerning the site.

3.7 Interviews

Individuals with historic or current knowledge of the Property were interviewed to provide information concerning environmental conditions at the Property. Personnel from the following offices were interviewed:

- Directorate of Public Works (DPW) – Air Quality
- DPW Environmental Division – UST/Asbestos
- DPW – Natural Resources
- DPW – Engineering
- Fort McPherson Museum
- DPW Historic Architect
- DPW Engineering – Real Property.

The interviews included topics of general environmental interest and specific areas of interest identified during the records review and visual site inspection. Copies of the interview reports are included in Appendix G. Pertinent information regarding environmental impact is included in Chapter 5.0 of this report.

3.8 Data Management

From records and interviews as described, environmental conditions at the Property were evaluated facility-wide, and findings were compiled in hard copy and electronic format.

The majority of information used in the evaluation of the environmental condition is included in the appendices of this report. Other information is included in an electronic database provided in CD format. This includes electronic versions of reports reviewed for the ECP, digital photographs taken during the VSIs, and VSI checklists compiled after the inspections. All electronic data items are listed in a Microsoft Excel[®] spreadsheet containing the descriptive name of the item as well as electronic filename.

4.0 Property Description

The following sections provide summary information on past and present land use and the nature of major processes and operations.

4.1 Installation Location and Description

Fort McPherson is located on approximately 487 acres of land in the city limits of Atlanta, Fulton County, Georgia. The Property is roughly rectangular in shape and is situated due north of Highway 166 (Langford Freeway), west of Highway 29 (Lee Street), and southeast of Campbellton Road. Land use within 1/4 mile is residential with zones of light industry interspersed. The Property is bounded by residential areas to the north (Oakland City), east (Lakewood), and west. Mixed residential and industrial areas lie immediately south of the Property. It is centrally located in the Atlanta metropolitan area, approximately 4 miles southwest of downtown and 3 miles north of Atlanta's Hartsfield International Airport. Figure 1 shows the location of Fort McPherson.

Fort McPherson is an active U.S. Army facility which houses many headquarters and tenant organizations. The Property is the home of the FORSCOM. FORSCOM is responsible for the training and readiness of nearly one million active, Army NG and Army Reserve soldiers, providing effective, strategic forces capable of responding rapidly in support of national security. FORSCOM commands the Third U.S. Army which is headquartered at Fort McPherson. Fort McPherson also houses the USARC.

The Fort McPherson community is made up of approximately 4,000 civilians, 2,300 active-duty personnel, and 1,300 Army Reserve personnel. Fort McPherson's mission is to support and execute soldier readiness and well-being by providing efficient installation management programs, a quality community, and value-added services to active, reserve, NG and joint service forces, retired military, civilians, and family members (U.S. Army Corps of Engineers [USACE], 2005).

Fort McPherson is used in much the same way as the surrounding suburban communities of Atlanta. The cantonment is broken down into administrative areas, recreation areas, family housing areas (94 units in 51 buildings), and a small industrial area. Troop training is limited to a small pistol range near the southwest corner of Property and is limited to small arms ammunition. The Fort McPherson range is the only operational range on the Property to have

activities associated with munitions use. There are approximately 253 buildings and structures at Fort McPherson scattered over 487 acres. The Network Enterprise Technology Command is approximately 8.4 acres and is located in Peachtree City, Georgia.

4.2 Historic Land Use

Prior to the establishment of Fort McPherson, the land in the vicinity was mostly pasture land. There has been an Army presence in the area since the early 1800s and the land at Fort McPherson was used as a drill field and meeting place for the state militia.

Just prior to the beginning of the Civil War, the Georgia militia was mobilized and the land was used as a training center for the troops. When the Civil War began, the Confederate government took control of the old parade ground, erected barracks, and built a cartridge factory. When Union troops approached Atlanta in 1865, the Confederate troops destroyed the barracks and cartridge factory so that they would not fall into the Union troops' hands.

Aware of Atlanta's popularity as a summer encampment for troops stationed in subtropical Florida, Congress in 1885 established a permanent military post at Fort McPherson.

4.3 Facility History

The initial land acquisition for "the post near Atlanta" was in 1885, with a second parcel purchased in 1886. Construction for the 10-company post began shortly thereafter. The first troops were garrisoned there in 1889, the same year the post was designated Fort McPherson. By 1893, numerous troop barracks, officer and noncommissioned officer housing, a headquarters and hospital, a large mess hall, a guard house, and other support facilities had been completed.

The end of the 19th century found a flurry of activity at Fort McPherson, much of it was centered on medical activities, particularly during the Spanish-American War. In May 1898, Fort McPherson was designated a general hospital to serve the medical needs of the wartime emergency. By the early part of the 20th century, an expansion of the post was approved to include four additional companies of infantry soldiers. Permanent new construction to meet this increased strength were added.

The advent of World War I saw an explosion of construction at Fort McPherson. Temporary wooden buildings were constructed for an officer's training camp south of the main post where the FORSCOM headquarters sits today. Additional temporary wooden and semipermanent

masonry buildings were constructed around the hospital as Fort McPherson was designated first a base hospital (June 1917) and then a general hospital (General Hospital No. 6, December 1917) (Figure 3). These buildings served as wards, treatment facilities, operating rooms, and quarters for doctors, nurses, and other hospital personnel. In August 1917, the command of Fort McPherson was transferred to the medical department and the regular troops withdrew to Camp Meade, Maryland. Only Building 22, which today is used for billeting, remains from this construction. It was originally constructed as quarters for the nurses working and training at the hospital.

With the regular troops gone, the barracks were converted to hospital wards, and a second floor was added to the wards of the post hospital. Several permanent support facilities were also constructed at this time, including a small boiler house for the new hospital facilities (to which an addition was made just over a year later), another larger boiler house, and a fire station. The small boiler house remains and continues to function as a boiler house. The larger boiler house was demolished in 2000, having lost all integrity through decades of additions and renovations. The fire station is still used, although it has been converted to a printing plant.

During WWI, an additional 136 acres were purchased adjacent to the south boundary of Fort McPherson for Camp Jesup, Mechanical Repair Shop No. 305 (Figure 4). Several dozen temporary wooden structures were built on the hillside where the USARC headquarters now sits, overlooking two large motor vehicle repair shops.

After the war, the camp was designated the Motor Transport School and later a Motor Transport General Depot. In 1922 the 305th Motor Repair unit left Camp Jesup and the buildings were turned over to the Quartermaster General for use as a regional depot. At this time, several steel aircraft hangars were constructed to serve as warehouses. In 1927 the depot was closed and the land incorporated into Fort McPherson. By the end of 1928, half of the wooden buildings had been demolished. (The remainder were demolished prior to World War II (WWII), when the hillside was again littered with temporary wooden buildings.) Building 363, now headquarters for the Third U.S. Army, is the only building remaining from this time. It was originally the larger of the two motor repair shops. Building 360, which served as the Fort McPherson commissary and stood until 1998, was one of the aircraft hangars constructed in 1922 to serve as a warehouse for the Quartermaster Depot.

Several National service organizations, such as the American Red Cross, the Young Men's Christian Association, and the Knights of Columbus, were also constructing buildings on military installations during WWI, including at Fort McPherson and Camp Jesup. Building 46, which was constructed in 1918 by the American Red Cross as a convalescent house, is the only one of these buildings remaining.

The final construction associated with Fort McPherson during WWI was a prisoner of war camp, which was located off the northwest corner of the post, across Campellton Road. It housed German sailors whose ships were caught in United States' ports when war was declared in Europe. The temporary wooden buildings that made up the camp were constructed on leased land. Shortly after the war, all of these buildings were demolished and the land turned back over to the owner.

Command of Fort McPherson was returned to line officers in December 1919. During the 1920s and 1930s, much of the construction activity centered around converting many of the permanent brick buildings to new uses and demolishing many of the temporary wooden buildings constructed for the wartime activities. For example, it was at this time that Building 184 (a 1904 barracks) was converted to administrative space, Building 65 (another 1904 barracks) was converted to apartments, Building 522 (a 1905 boiler house) was converted to visiting officers' quarters, and Building 500 (a 1918 boiler house) was converted to the Officers' Club. Much of this activity was prompted by the establishment of the IV Corps Area in 1920 and location of its headquarters at Fort McPherson from 1920 to 1923 and again from 1927 to 1934.

The 1930s again saw an expansion of the hospital facilities plus the construction of several permanent support facilities. In 1930, a hospital mess hall was constructed to the west of the original hospital (the west wing of Building 171), and a clinic and ward building was constructed to the south (Building 170). A contagious disease ward was constructed to the south of the 1930 clinic, and south of that, a nurses' quarters was constructed. Support facilities constructed for the Property during the 1930s included a theater, film storage vault, and a radio transmitter building. At this time, land that had been purchased in 1910 for an NG target range was transferred to the Army and incorporated into Fort McPherson. The transfer was initiated in April 1938 and completed in June 1941. This area includes more than 134 acres on the west side of Fort McPherson, most of which is currently occupied by the golf course.

As during WWI, the opening days of WWII saw a flurry of construction activity. The hospital was again expanded, with dozens of temporary wood and semipermanent mobilization buildings constructed just to the south and west of the hospital complex. A number of laboratory and clinic facilities were built where the Medical/Dental Clinic now stands. Buildings 128-131 were constructed as wards. Temporary wood buildings made up a Quartermaster Motor Transport School and general supply depot, which was constructed on the site of Camp Jesup, and a 1,000-man recruit reception center (later used as a separation center) where FORSCOM Headquarters and the post library now stand. Several other mobilization structures were scattered around post. Only a handful of these buildings remain.

After the war, another major reorganization of the Army saw the establishment of the headquarters of the Third U.S. Army at Fort McPherson in March 1947. The relocation was completed by December. To accommodate this new use, the temporary wood buildings constructed during WWII for the reception/separation center were converted to use as offices and other support facilities. Building 210, which had been constructed during WWI for Camp Jesup, was also converted for use as offices. The 400-, 500-, and 600-family housing areas were constructed at this time to alleviate the housing shortage brought on by this growth. The 500- and 600-family areas were the first to be completed, in 1947. Each building originally had four 2-bedroom apartments, two per floor. These buildings were converted to duplex apartments beginning in the mid-1950s. Buildings 409 and 410 were constructed in 1948. For the next 20+ years, a few new support facilities were constructed, but for the most part, most of the construction activity centered on adaptively reusing existing buildings.

Important events in the facility's development, administration, and mission are summarized in Table 4.

Table 4
Timeline of Significant Events at Fort McPherson*

Year	Description
1885	Congress appropriated funds to establish a permanent military reservation in Atlanta. A site was approved for acquisition and construction.
1889	The post was officially designated Fort McPherson, in honor of Major General James Birdseye McPherson.
1896	Waco Target Range was purchased for FTMP training purposes.
1898	FTMP included a recruit training center, a General Hospital, and a prison camp for Spanish prisoners of war.
1910	Atlanta NG Target Range was purchased to provide a target range for the National Guard of GA.
1917	During WWI, FTMP was selected as U.S. Army General Hospital No.6.
1918	FTMP acquired 136 acres on the south side of the post, which became Camp Jesup and was used for major motor vehicle overhaul operations.
1920	FTMP became headquarters for the entire Fourth Corps Area.
1933-1942	CCC major activities occurred at FTMP.
1938	Installation acquired the use of the 136-acre Atlanta NG Target Range.
1940	Several barracks were converted to a hospital. A 1,000-man recruit reception center was constructed. Plans for a general supply depot were approved. The Quartermaster Motor Transport School was opened.
1940	The Waco Target Range was declared surplus.
1941	Atlanta NG Target Range was permanently transferred to FTMP.
1944-1946	FTMP functioned as a separation center for military personnel discharged from service.
1947-1973	FTMP played vital roles throughout the Korean and Vietnam conflicts as a command control center and Headquarters for Third U.S. Army.
1974	Atlanta Army Depot was renamed FTG and designated a subinstallation of FTMP.
Present	FTMP provides administrative and logistical contingency support to the major land fighting Army Command headquarters, FORSCOM, Third U.S. Army/U.S. Army Forces Central Command, the U.S. Army Reserve Command, and First U.S. Army

*Source: Historical Records Review Fort McPherson, January 2006, Malcolm Pirnie, Inc.

4.3.1 Operational History

From the Spanish-American War until the end of WWII, Fort McPherson's primary missions were the provision of medical services, the processing and training of soldiers, and the conduct of supply and equipment maintenance operations. Since WWII, the base's primary function has shifted strongly towards command and control activities.

In conjunction with the Spanish-American War, a recruit training center for 20,000 was established at Fort McPherson, along with a prison for Spanish prisoners of war. In May 1898, shortly after the war's beginning, the post hospital was designated a General Hospital to serve the medical needs of the wartime emergency. Following the war, the level of activity declined significantly.

Mobilization for WWI in 1917 followed a similar pattern. An officers' training camp was established, as well as POW barracks for captured German sailors. The hospital became US Army General Hospital #6, and the ranking medical officer assumed command of Fort McPherson until 1919.

In 1918, an adjacent parcel of land was purchased for the establishment of Camp Jesup. Until 1922, this facility's chief operation was the repair, storage, and issue of Army motor vehicles. At that time, the buildings were transferred to the Quartermaster Corps for use as an intermediate regional depot for storage of surplus supplies turned in at the war's end. Camp Jesup was permanently transferred to Fort McPherson in 1927 (U.S. Army Toxic and Hazardous Materials Agency [USATHAMA], 1983).

4.3.2 Process Descriptions (Industrial Facilities Only)

Industrial operations are associated with maintenance and repair of passenger and utility wheeled vehicles, tracked utility vehicles, buildings, roads, and utilities. In addition, photographic and printed material are produced on Property for training aids and information services. Past activities were more extensive and included major automotive repair shops, electronics and communications repair shops, and furniture repair shops, which were moved to Fort Gillem in the mid-1970s.

Most of the industrial activities at Fort McPherson occurred within the original Camp Jesup Area. Camp Jesup was established in 1918 as the site of a major motor vehicle overhaul operation, handling from 50 to 60 railroad carloads of motor equipment per week. In 1922 Camp Jesup became a quartermaster intermediate depot for storage of war supplies turned in from various camps, and motor repair operations ceased. In 1927, Camp Jesup Quartermaster Depot was discontinued and its facilities and activities were consolidated with the post of Fort McPherson (USATHAMA, 1983; Earth Tech, 2003b). Many of the buildings that were involved in industrial activities have either been demolished, no longer appear in the current building asset listing and/or have been re-purposed.

Each industrial operation is described in this section under the shop with which it was associated. There were six vehicle maintenance shops and six vehicle wash racks. In addition, the Property had a field printing plant as well as laundry and dry cleaning, photography, graphics, sheet metal, paint, carpentry, packing and crating, masonry, refrigeration, electrical, and plumbing shops.

Vehicle Maintenance Shops. The vehicle maintenance shops were listed as follows:

Former Vehicle Maintenance Shops:

1. Directorate of Industrial Operations (DIO) transportation motor pool (TMP) (Building 348)
2. DIO Maintenance Division (Building 363)
3. DEH equipment maintenance shop (Building 357-demolished)
4. 29th Engineer Detachment (Building 426 - demolished)
5. Auto craft shop (Building 312 - demolished)
6. Fueling Station– PX service station (Building 187/143-demolished), commercial fueling (Building 368), Government Fueling (Building 350)
7. Vehicle Maintenance – Building 280

Current Vehicle Maintenance Shops:

8. Auto Crafts Center (Building 370 replacement for activities at former Building 312)
9. Golf Equipment Maintenance (Building 340)
10. Roads and Grounds (Building 346).

At the DIO TMP (Building 348), activities were limited to checking oil, water, electrolyte levels, and tire pressure on passenger and light utility vehicles. Vehicle washing was also performed. There were environmental conditions associated with Building 348 identified as part of this ECP.

The DIO Maintenance Division vehicle repair shop (Building 363) serviced passenger and utility vehicles. Maintenance activities include oil servicing, solvent degreasing of parts, brake repair, engine tune-up, hydraulic fluid replacement, minor electrical system repairs, and minor spot

painting. More extensive engine, body, and brake work, and painting were performed at Fort Gillem DIO. This site is designated FTMP-01 under the IRP and is considered a REC. More information regarding this site is included in Section 5.2.1.

The DEH equipment maintenance shop (Building 357) performed minor tune-ups, oil servicing, and repairs on wheeled light utility vehicles, tracked construction vehicles, lawn mowers, edgers, and assorted small maintenance equipment. Vehicle and equipment washing was also performed. During the 2006 VSI, a grassy area was observed in the location of former Building 357. There are no known environmental releases associated with this former operation.

The 29th Engineer Detachment (Building 426) performed operator- and organizational-level maintenance only. Activities included checking of oil, water, and electrolyte levels and tire pressure, as well as oil servicing, minor tune-up work, and vehicle washing. There were no environmental conditions associated with Building 426 identified as part of this ECP.

Prior to 1982, auto craft shop activities were conducted within Building 312. Building 312 was demolished in 1981 for Metropolitan Atlanta Rapid Transit Authority terminal construction. Information obtained during the ECP indicated that there were no known environmental conditions associated with Building 312.

According to the 1983 Installation Assessment, beginning in 1982, an auto craft shop was located in Building 371. Activities at Building 371 were reportedly similar to those at the former Building 312. The auto craft shop provided facilities for self-servicing privately owned vehicles. Minor engine repair, tune-ups, oil servicing, brake work, and vehicle washing were performed at the shop. One 500-gallon waste oil tank was reported to have been located at Building 371. There was no available information regarding the status of the tank, however, information obtained during the ECP indicated that Building 371 did not exist at the Property. Instead, the auto craft shop was and is currently located in Building 370, which was built in 1982. A 500-gallon waste oil tank at Building 370 was removed on June 9, 1993. Building 370 is designated FTMP-08 under the IRP and no further action is required for the site.

The PX service station (Building 143) serviced privately owned vehicles. Maintenance activities were similar to those described for Building 370. The site is designated FTMP-09 under the IRP and is considered a REC. More information regarding this site is included in Section 5.2.1.

According to historical documents, another area where vehicle maintenance was performed was at Building 280 (U.S. Army Garrison, 2001). Information obtained during the ECP indicated that there was no known environmental conditions associated with Building 280.

All buildings listed above have been demolished with the exception of Buildings 348, 350, 363, 368 and 370. VSI results and interviews with installation personnel indicated that with the exception of Buildings 143, 346, and 363, the other vehicle maintenance buildings are currently not considered recognized environmental conditions.

Vehicle Wash Racks. There were five locations where vehicles were routinely washed:

1. DIO TMP Building 345: indoor and outdoor operations, with an oil/water separator and waste water discharging to the storm sewer. No hazards or environmental conditions were observed during the 2006 VSI. No environmental conditions associated with Building 345 were identified as part of this ECP.
2. Near DIO TMP Building 347 (currently the golf facilities bathroom): outdoor operations, with no treatment, with waste water discharging to a culvert to Lake No. 1. No environmental conditions associated with Building 347 were identified as part of this ECP.
3. DEH Equipment Maintenance Building 357: outdoor operations, with no treatment, with wastewater discharging overland toward Lake No. 1. Building 357 is demolished. The site is currently designated as FTMP-07 under the IRP. The site is not considered a REC. More information regarding FTMP-07 is included in Section 5.2.1.
4. 29th Engineer Detachment Building 426: outdoor operations, with no treatment, with wastewater discharging overland to a drainage ditch. Building 426 was demolished in 1991. No environmental conditions associated with Building 426 were identified as part of this ECP.
5. 525th Military Police Building 101 (currently the Provost Marshall Office (Police Station): outdoor operations, with no treatment, with wastewater discharging overland to a storm sewer. No environmental conditions associated with Building 101 were identified as part of this ECP.

Buildings 357 and 426 are demolished. Based on VSI results and interviews with installation personnel, the existing buildings are not considered to be recognized environmental conditions.

Laundry and Dry Cleaning. The 1983 Installation Assessment stated that DIO operated a laundry and dry cleaning shop listed at Building 208; however, current research indicates that

this may have been meant as Building 209, which was listed as a laundry and dry cleaner in another document (USAEHA, 1961). According to other historical documents, dry cleaning was also conducted in Building 302 and the solvents were kept in the USTs (Atlanta Testing and Engineering, 1990). One 300-gallon and one 500-gallon naphtha USTs were reported to be located at Building 302. There was no available information regarding the status of the tanks. Buildings 208 and 209 have since been demolished. The dry cleaning process was stated to have used perchloroethylene and caustic spot removers. Buildings 208, 209, and 302 constitute a REC.

Media Support Activities. The Directorate of Plans, Training, and Security operated a photographic laboratory in Building 205 (currently the Post Communications Center). Both color and black and white processing was performed. Historical documents also list Building 232 as operating an Ozalid machine for print reproduction (USAEHA, 1961). Building 264 was listed as the Projectionist and Transparency School that used film developing (USAEHA, 1968). Visual site inspections of the buildings and interviews with installation personnel revealed no recognized environmental conditions.

The Directorate of Plans, Training, and Security also operated a graphics shop in Building 363 (currently the administration building for the Third Army headquarters). Large format posters were the principal product of this shop. DPCA operated the field printing plant at Building 363, providing offset printing, photocopying, and automatic film processing. Principal products were training manuals, forms, and handbills. Building 363 is designated FTMP-01 under the IRP and is considered a REC. More information regarding this site is included in Section 5.2.1.

Equipment Maintenance Shops. DIO maintenance activity was limited to vehicle maintenance at Building 363, previously described in this section. Prior to the mid-1970s, DIO operated several other shops in Building 363, including furniture repair, small arms gunsmithing, electronics and communications equipment repair, and more extensive vehicle repair. Historical documents also indicate that equipment repairs were also conducted in Buildings 114 and 135 (USAEHA, 1962; U.S. Army Medical Laboratory, Environmental Health Engineering Division, 1968; and U.S. Department of Army, 1976). Interviews with installation personnel revealed no recognized environmental conditions associated with Buildings 114 and 135.

Facilities Maintenance Shops. DEH operated the following shops on Fort McPherson for maintenance of real property:

The sheet metal shop (Building 353, currently the 90-Day Hazardous Waste Site) activities included cutting and welding sheet metal.

The paint shop (Building 363) conducted painting both in the shop and at the job site using latex, enamel, lacquer, wood stains, and varnishes.

The carpentry shop (Building 363) activities included sawing, planing, and sanding of wood, primarily in the shop. Historical documents also indicate that a woodworking shop also operated in Building 118 (USAEHA, 1962).

The masonry shop (Building 363) functioned primarily as a storage area for mortar and tools. Masonry and bricklaying were performed at the job site.

The refrigeration shop (Building 354, currently listed as the WK Animal Building) personnel performed air conditioning and refrigeration repairs, primarily at the job site.

The electrical shop (Building 205) personnel performed electrical rewiring at the job site. The shop served primarily as a storage area for tools and equipment.

The plumbing shop (Building 363) personnel serviced heat system piping. Work included removal of asbestos insulation.

No recognized environmental conditions associated with Buildings 205, 353 and 354 were identified as part of this ECP. Building 363 is designated FTMP-01 under the IRP and is considered a REC. More information regarding this site is included in Section 5.2.1.

Laboratory Operations. The principal laboratory operations were associated with clinical laboratories operated by the medical activity (MEDDAC), the dental activity (DENTAC), and the USAEHA Regional Division-South Laboratory. A summary of laboratories and responsible activities were as follows:

1. Building 170, Clinical Laboratory (e.g., Hematology, Microbiology), MEDDAC
2. Building 170, X-Ray Clinic, MEDDAC
3. Building 100, Dental Clinic, DENTAC
4. Building 100, X-Ray Clinic, DENTAC
5. Building 180, Region-South, USAEHA.

The U.S. Army Health Clinic (Building 170, currently listed as the General Purpose Administrative Building) provided outpatient care to approximately 500 patients per day. The clinic began operation in 1977. Prior to 1977, the hospital (Building 171) occupied this location and conducted similar types of laboratory activities. Historical documents also indicate that a medical laboratory also operated in Building 102 (USAEHA, 1962). The clinical chemistry laboratory, located in Building 170, discharged dilute quantities of waste solvents and reagents to the sanitary sewer. No pathological wastes were generated by the clinic. Microbiological wastes (e.g., plates, stains, and cultures) were collected separately, autoclaved, and then disposed of with the regular trash. Radioisotopes have never been used at the U.S. Army Health Clinic.

Silver was recovered by the Medical Supply Branch from x-ray and photographic fixative solutions generated by the U.S. Army Health Clinic and subsequently sent to the Defense Property Disposal Office (DPDO) at Fort Gillem. Fixative solution from which silver was recovered was then discharged to the sanitary sewer.

DENTAC maintained clinics in Building 100 (currently listed at the Army Criminal Investigation Building). Historical documents indicate that the Central Dental Lab was also operated in Building 47 (USAEHA, 1960). All X-ray fixative solutions generated by those activities were processed for silver recovery by the Medical Supply Branch in Building 170 (described above) and turned over to DPDO at Fort Gillem. Amalgams were stored under glycerin and turned over to the Medical Supply Branch.

The USAEHA Regional Division-South Laboratory (Building 180, currently listed as the Army Lab Building) had provided routine inorganic, trace metal, and trihalomethane analyses to USAEHA from 1974 to at least 1983. Prior to 1974, the Third Army Medical Laboratory, a public health laboratory, occupied this location. Wastes from the USAEHA operation were discharged into the sanitary sewer, which included waste nitric acid, chromium, phenol, and sodium hydroxide. The laboratory did not have the capability to analyze for PCBs, pesticides, radiation, or explosives; thus, no wastes of this nature were generated.

Historically, other laboratories were listed in Buildings 163 and 179 (entomology lab).

No environmental conditions associated with Buildings 100, 163, 170, 179, and 180 were identified as part of this ECP, therefore, these buildings are not considered a REC.

Heating and Cooling. A boiler plant is operated at Building 160 and an old boiler plant was listed for Building 208. The former boiler plant in Building 208 was a dual fuel boiler house using both diesel and natural gas and operated between the years 1942 and 1988.

4.3.3 Occupancy, Lease and Easement History

A listing of all current leaseholders on the Property is included in Table 5. The leasehold/outgrant locations and general property use classifications are depicted on Figure 5.

Table 5

Current Leaseholders at Fort McPherson

Name of Leaseholder
American Red Cross
Bell South
Cable East Point
City of Atlanta
Defense Security Office
Associated Credit Union/Former Federal Employees Credit Union
Fort McPherson Credit
Georgia Power Company
MARTA
Southern Bell and Telegraph
System Engineering and Management Corporation
Defense Contract Administrative Services
DLS- Printing Plant
Air Force Nat'l Sec Emer
Lake Allatoona
Blind Vendor
AT&T Teleport
Department of Agriculture
ATM at Fort Mac M-200
ATM at Fort Mac M-238
ATM at Fort Mac M-315
ATM at Fort Mac M-363
Fort McPherson Credit Union at Fort Gillem

DLS Printing, a Navy operated activity, is currently a leaseholder at Fort McPherson. The facility has not been listed in any environmental databases reviewed and is not considered an environmental concern.

The proposed Veterans Administration’s occupancy area at Fort McPherson is included as Figure 6.

In addition to the lease holders at the Main Post, Network Enterprise Technology Command leases the property at 700 Westpark Drive, Peachtree City, Georgia.

4.3.4 Range Operations

There are six operational ranges at Fort McPherson. Table 6 provides a list of the operational ranges. There are also four closed ranges (Malcolm Pirnie, Inc., 2006) at Fort McPherson which are discussed in Section 5.2.2 of this report.

**Table 6
Fort McPherson Operational Ranges**

Range	Status	Acreeage	Current use	Historic Use
Fort McPherson Range	Active	1.96	Combat Pistol/MP Firearms/Qualification Course	Combat Pistol/MP Firearms/Qualification Course
Hedekin Field	Active	10.42	Parade/Drill Field	
LZ Max	Active	1.42	Rotary Wing Landing Pad Surfaced (Black Top)	Parking Lot
PT Track	Active	3.23	Maneuver/Training Area, Light Forces	None recorded
Training Area 1	Active	3.21	Maneuver/Training Area, Light Forces	None recorded
Training Area 2	Active	0.77	Maneuver/Training Area, Light Forces)	None recorded

A detailed historical records review was conducted of the operational ranges in January 2006. A review of this document confirms the use of munitions at Fort McPherson. The Fort McPherson Range was found to be the only operational range on the Property to have activities associated with munitions use. The range covers 1.96 acres in the southwest corner of the Property and is limited to small arms ammunition. The potential munitions used at the Fort McPherson Range include the following:

- .22 caliber

- .32 caliber
- .38 caliber
- .45 caliber
- 9 millimeter.

In 1997, the U.S Army Environmental Command selected the Fort McPherson Range as a test site for implementation of small arms range stabilization technologies. As part of this program, the impact area was redesigned to maintain environmental compliance and to reduce operational costs. An 800,000-pound rock-filled gabion basket structure, 24 feet in height and extending the length of the target line, was installed to support the weight of the natural embankment behind the impact area. Upper slope channel and polyvinyl chloride pipes were constructed behind the gabion wall to direct drainage away from the impact area. Currently, specially designed bricks are positioned in front of the gabion baskets to capture and retain bullets and bullet fragments (Malcolm Pirnie, Inc. 2006).

There does not appear to have been any lead investigations at the range to date. A potential lead contamination exists due to range activities prior to the reconstruction of the impact area. The Fort McPherson Range is considered a REC.

4.4 Installation Utilities (Historic and Current)

4.4.1 Water Systems

Half of Fort McPherson's water supply is derived from the City of Atlanta and half from the City of East Point. The current water supply system was installed in 1992-1993. Figure 7 depicts the current water supply systems at Fort McPherson.

Water enters Fort McPherson mainly at Walker Gate through a 10-inch cast iron pipe. There is also a 12-inch cast iron pipe connection near Gordon Plaza (Lee Street). The water flows into a 200,000-gallon concrete ground storage reservoir, through a pump house containing two 275 gallons per minute and one 550 gallons per minute pumps. An elevated 200,000-gallon steel storage tank is located near Patton Gate. The elevated tank has cathodic protection for corrosion control. Most of the distribution system consists of 4-, 6-, 8-, and 10-inch cast iron pipe, but galvanized steel and ductile iron are present in some areas. Low-diameter galvanized steel pipes are used to supply water to "remote" low-volume users. The distribution system is fully pressurized, with pressures ranging from 40 to 70 psi within Fort McPherson. The sprinkler systems on the golf course and parade fields are transite pipe of various sizes from 1 to 6 inches.

The current sprinkler system was replaced in 1994 for the golf course and in 1999 for the parade fields. Existing wells are not used for potable water but are used as part of the irrigation system.

A water quality survey (No. 31-62-0149-89) dated June 19-23, 1989 for Fort McPherson and Fort Gillem was conducted to evaluate the potable and recreational water systems and to assess whether the installations were in compliance with applicable regulations, guidelines, and accepted environmental practices. No further information was provided regarding the survey.

4.4.2 Industrial and Sanitary Sewers and Treatment Plants

Fort McPherson's wastewater, which is primarily domestic sewage, is discharged to the city of Atlanta sanitary sewer system and treated in a city-owned treatment plant. Fort McPherson is served by separate sanitary and storm sewer systems. Fort McPherson does not operate under an industrial wastewater permit but does operate under a National Pollutant Discharge Elimination System (NPDES) permit. Figure 8 depicts the current sanitary sewer systems at Fort McPherson.

The wastewater collection system consists mostly of 6- and 8-inch polybutylene pipes. With the exception of Building 200, which is provided with two lift stations, all wastewater streams flow by gravity to the city-owned sanitary sewer lines at five locations.

The industrial wastewater which is being discharged with the domestic sewage consists of boiler and cooling tower blowdowns, wash rack discharges, swimming pool backwashes and wastewater from the printing plant (USAEHA, 1990).

4.4.3 Stormwater System

Fort McPherson is served by separate sanitary and storm sewer systems (Figure 9). Storm drains discharge untreated stormwater runoff to Utoy Creek and to the off-Property storm sewer system. Fort McPherson is the major watershed for Big Utoy and Little Utoy Creeks, which converge at the southwestern Property boundary to form South Utoy Creek, which flows to the Chattahoochee River seven miles west of the Property. With the exception of an isolated portion of the eastern boundary, which flows to the city of Atlanta storm system, Fort McPherson surface water runoff is captured and controlled by a stormwater drainage system that ultimately discharges to the South Utoy Creek. The Property has four major lakes numbered 1-4. A piping system carries much of the lower portion of Little Utoy Creek throughout the Property. The largest of the Big Utoy Creek headwaters enters the Property at the mouth of Lake No. 1. Along the southern boundary, a secondary source of headwaters enters Property as a small open channel

from a local recreation area maintained by the city of East Point, which converges with the headwaters of Lake #2, where it becomes Big Utoy Creek (Earth Tech, 2002).

4.4.4 Electrical and Natural Gas Systems

Electrical supply is provided by Georgia Power Company from off-Property. One electrical substation is located east of Lee Street adjacent to Building 363.

Heating is provided by central boiler plant (Building 160) via steam. Building 160 houses three natural gas boilers which provide steam to several surrounding buildings. Individual buildings also have their own heating units (natural gas/fuel oil boilers). An air propane mixing system is used at Fort McPherson as a secondary fuel source. Figure 10 depicts the electrical systems and Figure 11 depicts the natural gas systems for Fort McPherson.

4.5 Environmental Setting – Natural and Physical Environment

4.5.1 Climate

The Atlanta area has a humid continental climate characterized by long hot summers and mild winters. The average annual temperature is 16.4 degrees Celsius. Average annual precipitation is 123.6 centimeters and is well distributed throughout the year. Winds are predominantly from the northwest and light to moderate in intensity.

4.5.2 Topography

Fort McPherson is located in the Appalachian Piedmont, a hilly upland region with elevations generally ranging from 230 to 385 meters (m) above mean sea level (amsl). The region is characterized by gently rolling topography broken by areas of rugged hills bordering the major drainage and by residual monadnocks, such as Stone Mountain. Elevations on the Property range from 327 to 280 m amsl.

4.5.3 Surface Water Hydrology

The Property is drained by the headwaters of South Utoy Creek, which flows into the Chattahoochee River, ultimately discharging into the Gulf of Mexico. The two branches of this drainage way are known as Big Utoy Creek and Little Utoy Creek. Both streams are perennial, deriving most of their flow in the dry season from groundwater inflow. Three impoundments have been constructed: Lake No. 1 and Lake No. 2 on Big Utoy Creek and Lake 3 on Little Utoy Creek. These lakes serve as stormwater holding ponds and as reservoirs of irrigation water for

the golf course. All stormwater runoff is routed to the Utoy Creek system through a system of culverts and ditches.

4.5.4 Geology

The Property is underlain by highly metamorphosed rocks of the Appalachian Piedmont. The underlying rocks have been assigned to the Clarkston Formation of the Atlanta Group (Georgia Geologic Survey, 1982). The Atlanta Group rocks occur in a regional structure known as the Newnan-Tucker synform (Georgia Department of Natural Resources, 1981). The Clarkston Formation consists of inter-layered sillimanite-garnet schist and hornblende-plagioclase amphibolites. The age of these rocks is unknown, but is suspected to be early Paleozoic. The Clarkston Formation is estimated to be 800 to 2,500 m thick and is overlain by soil and saprolite which vary from about 3 to 20 m in thickness.

The rocks of the Clarkston Formation yield moderate quantities of water to wells. The rocks themselves are relatively impermeable but are highly fractured, providing conduits for the movement of groundwater. Due to the complexity of both the local and regional structure, the direction of regional groundwater movement is unknown. The shallow ground water flow is probably controlled by topography and is subparallel to the surface water flow. Depth to ground water varies over the Property, but is probably less than 5 m.

4.5.5 Demography and Land Use

Figure 5 depicts the areas of general land use at Fort McPherson.

The Fort McPherson community is made up of approximately 4,000 civilians, 2,300 active duty personnel, and 1,300 Army Reserve personnel. The land use differs little from the patterns of land use found in the nearby community of East Point. The cantonment is broken down into administrative areas, recreation areas, family housing areas (94 units in 51 buildings), and a small industrial area. Troop training is limited to a small pistol range near the southwest corner of the Property. There are approximately 253 buildings and structures at Fort McPherson scattered over 487 acres (U.S. Department of Army, 2002).

Per the Fort McPherson Integrated Natural Resources Management Plan (Directorate of Installation Support, Environmental Division, 2000) the existing land use, categorized per TM 5-803-1, is as follows (Table 7):

Table 7
Existing Land Use Allocations

Category	Approximate Acreage	Percent of Total
Administration	71	15
Community Facilities	51	10
Family Housing	58	12
Utilities	N/A	0
Medical	38	8
Recreation	205	42
Research and Development	61	12
Unaccompanied Housing	Not Provided	0
Training	3	1
Operations	Not Provided	0
Buffer Zone	Not Provided	0
Total	487	100.00

The approximate acreages that are not provided in the categories shown above may have been grouped with others when the survey was conducted.

4.6 Biological and Cultural Resources Summary

4.6.1 Biological Resources

Since the Property lies within the Atlanta urban area and is largely maintained in a lawn or park-like setting, wildlife habitat is minimal. A listing of the most common and prevalent terrestrial biota are as follows:

Terrestrial Biota. The most common tree species on the Property include:

- Loblolly pine (*Pinus - taeda*)
- Short-leaf pine (*P. echinata*)
- White oak (*Querus - alba*)
- Southern red oak (*Q. falcata*)
- Black oak (*Q. velutina*)
- Sweet gum (*Liquidambar styraciflua*)
- Tulip tree (*Liriodendron tulipifera*).

Black cherry (*Prunus serotina*), flowering dogwood (*Cornus florida*), sassafras (*Sassafras albidum*), and sourwood (*Oxydendron arboreum*) are common understory species. In areas that are not regularly maintained, a number of vine species are common including kudzu (*Pueria lobata*), trumpet creeper (*Campsis radicans*), poison ivy (*Rhus toxicodendron*), greenbriers (*Smilax spp.*), and wild grapes (*Vitis spp.*).

A variety of grasses and weedy species occur in recently disturbed soils. Along waterways and in moist soils, willows (*Salix spp.*), alders (*Alnus spp.*), smartweed (*Polygonum spp.*), rushes (*Juncus spp.*), sedges (*Carex spp.*), and a variety of grasses are common. The cantonment area is surrounded by a number of ornamental or cultivated shrub and tree species, including dogwoods (*Inornus spp.*), cedars (*Juniperus spp.*), myrtle (*Lagerstroemia spp.*), magnolia (*Magnolia spp.*), privet (*Ligustrum spp.*), elms (*Ulmus spp.*), and pecan (*Carya illinoensis*).

The availability and diversity of habitats on-Property are limiting factors which control the variety and abundance of birds, mammals, and herpetofauna present. Species most common are those typically associated with semi-urban populated areas. Common mammals include gray squirrel (*Sciurus carolinensis*), eastern fox squirrel (*Sciurus niger*), eastern chipmunk (*Tamias striatus*), eastern mole (*Scalopus aquaticus*), eastern cottontail (*Sylvilagus floridanus*), opossum (*Didelphis virginiana*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*).

A large number of bird species could potentially occur on the Property as migrants or accidentals. However, several species are identified as common residents: starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), common grackle (*Quiscalus quiscula*), American robin (*Turdus migratorius*), mockingbird (*Mimus polyglottus*), mourning dove (*Zenaidura macroura*), rock dove (*Columba livia*), bluejay (*Cyanocitta cristata*), cardinal (*Cardinalis cardinalis*), common flicker (*Colaptes auratus*), and chimney swift (*Chaetura pelagica*). These are all common and widely distributed species. The herpetofauna are limited due to the restricted amount of aquatic and wetland habitat. Common herpetofauna include: garter snakes (*Thamnophis spp.*), black rat snake (*Elaphe obsoleta obsoleta*), northern black racer (*Coluber constrictor constrictor*), American toad (*Bufo americanus*), bullfrog (*Rana catesbeiana*), and eastern box turtle (*Terrapene carolina carolina*). These species are closely associated with timbered areas or along streams or ponds, although garter snakes and the American toad are widely distributed on the Property (DEH, 1980).

Aquatic Biota. Two streams (Little Utoy and Big Utoy Creeks) and four ponds (Lakes 1, 2, 3, and 4) provide the only significant aquatic habitats. The three ponds are located on or near the golf course and total approximately 12.4 acres. Although total aquatic habitat is small, the streams are perennial, and pond levels are generally stable. The streams pass through some timbered areas, providing riparian habitat for herpetofauna. The ponds support a fishery, although fishing demand is low. Common fish species include largemouth bass (*Micropterus salmoides*), channel catfish (*Ictalurus punctatus*), bullheads (*Ictalurus spp.*), carp (*Cyprinus carpio*), shad (*Dorosoma spp.*), crappie (*Pomoxis spp.*), and sunfishes (*epomis spp.*) (DEH, 1980). Only two noteworthy fish kills are recorded. One occurred in 1975 in Lake No. 2 and resulted in mortality of about 1,000 fish. Contamination by the insecticide methoxychlor was attributed as the cause, but the origin of the methoxychlor was not determined. The other kill occurred in 1974 in Lake No. 1, but no cause was determined (USATHAMA, 1983).

Threatened and Endangered Species. No threatened or endangered species have been sighted or are known to be residents on the Property.

4.6.2 Cultural Resources

The following is a summary of currently identified historic buildings and structures found at the Property (U.S. Department of Army, 2002).

- One listed National Register district – 41 buildings
- One building listed individually – Building 532
- Twenty-six (26) determined eligible by Georgia State Historic Preservation Office – Building 22 is currently under dispute.

The following is a list of currently identified archeological resources found at the Property:

- One site, lithic scatter and historic ceramic scatter – not eligible
- One isolated find – not eligible.

A map depicting the areas of historical significance is included as Figure 12.

4.7 Site Maps

The following site maps are used in this ECP to provide both a current and historical overview of the Property. These maps have been obtained from prior reports and have been updated as needed:

- Area Map
- Site Map
- Map depicting facilities and parking requested by the Veterans Administration
- Historic Site Maps, including:
 - 1917 Maps
 - Land Use Map with listings of outparcels and leaseholds
- Utility Maps, including:
 - Water Systems
 - Sanitary Sewer System
 - Electrical Systems
 - Natural Gas Systems
- Historical Resources
- Storage Tank Locations
- IRP Sites
- ECP Parcels
- Qualified Parcels.

5.0 Environmental Conditions

5.1 Environmental Permits and Licenses

5.1.1 Resource Conservation and Recovery Act Status

Fort McPherson is listed as a SQG with the EPA; it has an assigned RCRA generator ID number of GA1210020565. Fort McPherson is allowed to generate between 220 and 2,200 lbs (100 and 1,000 kg) of hazardous waste per month. Fort McPherson manages one 90-day hazardous waste accumulation site which is located at Building 353. All hazardous waste management is performed in accordance with the 2003 Hazardous Waste Management Plan (U.S. Department of the Army, 2003).

Fort McPherson is listed as a small quantity handler of universal waste and is allowed to accumulate less than 11,000 pounds (5,000 kilograms) of Universal Waste (UW) at any one time. Currently, Fort McPherson handles only batteries and mercury-containing lamps as UW. The installation has procedures in place for storing UW until these items can be picked up by an outside contractor for recycling. UW are stored at the 90-day accumulation site.

5.1.2 Solid Waste Permits

There are no solid waste permits at Fort McPherson. Currently, all solid wastes are disposed of off site. Until the late 1960s, combustible solid wastes were burned in open pits located near Building 440. This site has been investigated and remediated under the IRP. See Section 5.2.1 for information on FTMP-06, the former Incinerator Ash Dumpsite.

5.1.3 Underground/Aboveground Storage Tank Permits

All active storage tanks at the Property are registered. A list of all registered tanks is presented in Section 5.4. All storage tanks in the state of Georgia, with the exception of heating oil, are permitted by facility. The primary usage of all current tanks is storage of gasoline fuel, diesel fuel, heating oil for boilers and emergency generators, and waste oil staged for energy recycling.

5.1.4 National Pollution Discharge Elimination System Permits

Fort McPherson currently operates under the state of Georgia's NPDES General Permit GAR000000. This permit authorizes the discharge of stormwater from industrial activities to the waters of the state of Georgia; however, it is not applicable to process wastewater discharges or mixtures of process wastewater and storm water. This latest version of the permit became

effective August 1, 2006. The installation has a stormwater pollution prevention and management plan (SWPPMP) which is used to meet the requirements of Part IV of the General Permit (Earth Tech, 2003a). Additionally, to maintain compliance with the permit, the current SWPPMP is being reviewed and updated.

Fort McPherson is currently waiting on the GA EPD's Watershed Protection Branch to designate the base as a small municipal separate storm sewer system (MS4). This designation refers to small cities and military bases in Georgia that maintain their storm sewer systems separate from their larger host municipalities. Until such designation, the Army will not apply for a Phase II National Pollutant Discharge Elimination System permit (General NPDES Permit No GAG610000 for MS4).

A 1997 Environmental Compliance Assessment System (ECAS) indicated that two locations on the Property (Buildings 454 and 651) had discharges that were not covered by the NPDES permit. Building 454 was a golf equipment storage building (lawn mowers, etc.) and Building 651 was the golf cart barn. Both buildings had gas vehicles, oil, and hydraulic fluids within. These building were demolished circa 1993, in conjunction with the golf course improvements.

Both a 1997 ECAS and 2000 ECAS indicated that Fort McPherson needed to apply for a pretreatment permit for discharges into the sanitary sewer. There is no information regarding the existence of a pretreatment permit. There was no information found on any follow-up or corrective action that followed the 1997 and 2000 ECAS findings (USACHPPM, 2000).

5.1.5 Drinking Water Permits

There are no drinking water permits for Fort McPherson. Half of Fort McPherson's water supply is derived from the City of Atlanta and half from the City of East Point. The current water supply system was installed in 1992-1993.

5.1.6 Air Permits

Fort McPherson is considered to be a synthetic minor source under Title V of the Clean Air Act and has a general Air Quality Permit # 9711-121-0045-S-02-0, effective Nov 17, 2004. Sources include boilers, diesel emergency generators, fueling operations, gasoline and diesel storage tanks, and a degreasing operation. Table 8 provides a summary of emission sources at Fort McPherson.

Table 8**Sources of Emissions Included in the Fort McPherson Air Permit**

Source	Location
Individual boilers	Building 160
Liquid petroleum gas air mixing plant	
Individual diesel engines for emergency standby/generator	Buildings 47, 65, 110, 160, 200, 315, 326, 331 (2 engines), 360, 363
Gasoline storage tanks (10,000 gallon capacity)	Building 350 and Building 368
Gasoline storage tank (<10,000 gallon capacity)	Various buildings
Diesel storage tanks	Various buildings
Degreaser group	Various buildings
Fueling operation F001	Building 368
Fueling operation F101	Building 350
Fueling operation F102	Building 350
Fueling operation F103	Building 340
Fueling operation F104	Building 340
Fueling operation F105	Building 650
Ordinance Detonation Emission Group	
General Chemical Usage Emission Group	

Fort McPherson is located in an area of non-attainment status for ozone.

5.1.7 Nuclear Regulatory Commission Licenses

Fort McPherson does not hold any Nuclear Regulatory Commission (NRC) Licenses. However, several Army-held NRC Commodity Licenses and Army Radiation Authorizations are applicable to Fort McPherson as follows:

- An NRC License is held by Explosive Ordnance Disposal as BML 29-01022-14. This license is for calibrators containing radioactive materials.
- An NRC License is held by the U.S. Army Tank-Automotive & Armaments Command at Rock Island, Illinois, for use by all DoD installations and job sites as

BML 12-0072-06. This license is for radioactive materials use in armaments and artillery systems.

- An NRC License is held by the U.S. Army Armament & Chemical Acquisition and Logistics Activity at Rock Island, Illinois for use by all DoD installations and job sites as BML 12-0072-13. This license is for radioactive materials used in chemical agent detectors.
- An NRC License is held by the U.S. Army Armament & Chemical Acquisition and Logistics Activity at Rock Island, Illinois for use by all DoD installations and job sites as BML 12-0072-14. This license is for radioactive materials use in chemical agent monitors.
- An NRC License is held by the U.S. Army Soldier & Biological Chemical Command at Aberdeen Proving Ground, Maryland, for use by all DoD installations and job sites as BML 19-30563-01. This license is for radioactive materials use in chemical agent detectors and monitors.
- An NRC License was held by the U.S. Army Communications Electronics Command (CECOM) Safety Office at Fort Monmouth, New Jersey for use at Fort Monmouth or other temporary job sites as BML 29-01022. This license was for the use of by-product radioactive materials in research and development and instrument calibrations. This license expired 28 February 2005.
- An NRC License was held by the U.S. Army CECOM Safety Office at Fort Monmouth, New Jersey, for use at DoD installations and job sites as BML 29-01022-14. This license was for the use of radiological materials in instrument calibrations. This license expired 31 October 2003.
- An Army Radiation Authorization was held by the U.S. Army CECOM Safety Office at Fort Monmouth, New Jersey, for use at DoD installations and job sites as ARA 24-12-07. This authorization was for the use of radiological materials in lensatic compasses. The authorization expired 31 January 2005.
- An Army Radiation Authorization was held by the U.S. Army CECOM Safety Office at Fort Monmouth, New Jersey, for use at DoD installations and job sites as ARA 29-10-06. This authorization was for the use of radiological materials as radioluminous paint. The authorization expired 31 January 2005.
- An Army Radiation Authorization was held by the U.S. Army CECOM Safety Office at Fort Monmouth, New Jersey, for use at DoD installations and job sites as ARA 29-10-10. This authorization was for the use of radiological materials in electronic equipment. The authorization expired 31 January 2005.
- An Army Radiation Authorization was held by the U.S. Army CECOM Safety Office at Fort Monmouth, New Jersey, for use at DoD installations and job sites as

ARA 29-10-12. This authorization was for the use of radiological materials in night vision devices. The authorization expired 31 January 2005.

Areas at Fort McPherson found to be potentially impacted from historical use of radioactive material are included in Section 5.8.

5.1.8 Other Permits/Licenses

There are no other permits or licenses held at Fort McPherson.

5.2 Environmental Cleanup

5.2.1 Installation Restoration Program

Fort McPherson has an ongoing IRP which was initiated in 1980. The IRP has identified 11 sites, designated FTMP-01 through FTMP-11 (Figure 13). Eight sites have been closed out (listed as response complete) of the IRP. It should be noted that designating a site as response complete does not necessarily indicate that no further action is required at the site. The response complete designation may have been made for administrative reasons. Some of the response complete designations at Fort McPherson were made because the only site contamination was petroleum. Petroleum contaminated sites are not eligible for funding under the IRP. The eight sites closed out of the IRP include the following:

- FTMP-01, Bldg 363 Paint Shop
- FTMP-02, Bldg 41 - UST
- FTMP-03, Bldg 346 Waste Oil Tank
- FTMP-04, Bldg 346 OWS Separator
- FTMP-05, Bldg 370 OWS Separator
- FTMP-07, Bldg 357 DEH Maintenance
- FTMP-08, Bldg 370 Waste Oil Tank
- FTMP-11, Army Parking Lot.

Fort McPherson has an ongoing IRP for two sites including:

- FTMP-09, Building 143 PX Station
- FTMP-10, Vet Clinic/Old PX Gas Station.

Army records indicate that clean-up activities were completed at the Old Incinerator Ash Dumpsite (FTMP-06) and the Army is awaiting a response to the NFA request submitted to the GA EPD.

Four sites: Building 363 (FTMP-01), Building 143 PX Station (FTMP-09), the Veterinary Clinic (FTMP-10) and the Army Parking Lot (FTMP-11) are considered a REC. The rationale for this determination is discussed below.

FTMP-01 – Building 363 Paint Shop. The paint shop at Building 363 is currently used as a paint storage area. The installation assessment (USATHAMA, 1983) indicated that several activities were conducted in the building including being utilized as a paint shop, furniture repair shop, sheet metal shop, electrical shop, plumbing shop, refrigeration repair shop, field printing plant, pesticide storage/mixing, small arms refinishing, heavy equipment repair, and a vehicle maintenance. The Installation Action Plan (USACE, 2005) documented that a preliminary assessment (PA) was completed in 1988 for the site. The Directorate of Installation Support (DIS), Environmental Division, removed oil sludge from the OWS at the site, filled it with gravel and closed the OWS. The PA report was not available for review during the ECP report generation.

In 1996, an investigation was conducted in the parking lot in the immediate vicinity of Building 363 (FTMP-11) to support construction of the commissary. Elevated levels of trichloroethene (TCE) were detected in the soil. No information was available regarding remedial activities.

Although the site was closed out of the IRP in April 1988, this site is considered a REC.

FTMP-02 – Building 41, UST (Staff Judge Advocate Office). Building 41, the Staff Judge Advocate office, utilized a fuel fired boiler for heating. A steel, 5,000 gallon heating oil UST located south of the building provided heating oil to the boiler system. Tank and pipe integrity testing indicated that both the UST and piping were leaking, therefore the UST system was removed from Building 41 in November 1991. During tank removal activities, soil contamination was detected and GA EPD was notified. Soil was excavated (157 cubic yards). However, some contaminated soil above regulatory levels was left in place due to the existing surrounding structures. Excavated soil was disposed of at an off-site landfill.

A UST Closure Assessment report was submitted to the GA EPD Underground Storage Tank Management Program in January 1992. The Closure Assessment report provided the field work and analytical data for the removal of the UST (Ground Water Services, 1992).

This site was closed out of the IRP program in January 1992 (USACE, 2005). In 2002, a no further action concurrence was received from the GA EPD.

FTMP-03 – Building 346, Waste Oil Tank (Motor Pool Gas Station). One 2,000-gallon waste oil tank at Bldg. 350 (346) operated at the site. The tank was removed in December 1991 with soil over-excavation based on hydrocarbon odors and field screening data. A tank closure report was submitted in January 1992 detailing the findings of samples collected from the area around this site (USACE, 2005). The closure report was not available for review during the ECP report generation.

The site was closed out of the IRP in June 1993. No records were available for no further action concurrence from the GA EPD.

FTMP-04 – Building 346, Oil/Water Separator (Motor Pool Gas Station). One 2,000-gallon OWS is in operation at Building 350 (346). The OWS is a single-wall underground flow-through separator that services the fuel dispenser island at the Department of Labor (DOL) Motor Pool and the automatic car wash. The tank is active and periodically inspected and cleaned under the oil/water cleaning and maintenance contract. There are no known environmental concerns associated with this site. No evidence of contamination was observed during visual site inspections.

No further action is required under the IRP at this site (USACE, 2005).

FTMP-05 – Building 370, Oil/Water Separator (Auto Craft Shop). The oil/water separator is in operation at Building 370 and currently receives petroleum products from the floor drains inside the Auto Craft Shop and wash water from the steam cleaning wash rack. Construction activities in the area resulted in a broken junction box where effluent piping conducts wash water from the Auto Craft shop to the OWS. Activities in the vicinity of the OWS led storm water runoff to enter the OWS and the broken junction box resulting in the system back-up (USACE, 2005).

The tank is active and periodically inspected and cleaned under the Oil/Water Cleaning and Maintenance Contract. A new Oil/Water Separator was installed in 1999. No evidence of contamination was observed during visual site inspections.

This site was closed out of the IRP program in April 1988 (USACE, 2005).

FTMP-06 – Old Incinerator Ash Dumpsite (New Barracks Site). The Old Incinerator Ash Dump Site is located near the center of Fort McPherson. The area was used for burning trash in open pits and for disposal of solid waste incineration ash. Until the late 1960s, combustible solid wastes were burned daily in open, unlined pits excavated in the area. Burn residue was left in the pits; when a pit became full, it was covered with dirt. Waste materials burned in these pits reportedly included domestic garbage, hospital waste, minor industrial waste, (i.e., waste paints, solvents, oils, etc.) and construction and demolition debris.

Prior to the use of earthen burning pits, a solid waste incinerator was used to burn waste material. The incinerator was located on the edge of the burn pit/landfill area in Building 440. The facility was constructed in 1943 and was used less than five years before being abandoned. Ash from the incinerator was spread on the ground in this area from 1943 to 1948 (USACE, Savannah District, 1991).

In 1991, despite the known environmental concerns, it was decided that this area was the prime choice for construction of a new barracks complex. By February 18, 1993, a Phase I and II remedial investigation had been performed at this site. The investigations revealed trace volatile organic compounds (VOC), semivolatile organic compounds and elevated metal concentrations in subsurface soils at the site. The Phase I and Phase II investigations indicated that lead may be leaching from the waste material into the groundwater (USACE, Savannah District, 1994). Based on this belief, comments provided by GA EPD informed the Army that “a plan to remove or control the waste must be submitted.” To achieve this, a focused feasibility study was conducted during March and April 1993. During the design process, GA EPD indicated it would require cleanup of the groundwater as well as soils and debris. An agreement was reached between the two parties that groundwater characterization could be conducted during the remediation and barracks construction and that groundwater remediation, if required, could be achieved after construction of the barracks complex is completed.

Approximately 47,037 tons of affected material were excavated from the barracks construction site. During the initial remediation project, it was determined that contaminated ash and debris extended under the 12th fairway of the Fort McPherson golf course. Another 65,355 tons of affected material was excavated from the 12th fairway for a total of 112,392 tons. Of this total, 45,286 tons were determined to be hazardous based on the results of toxicity characteristic leaching procedure analysis; thus, this material was stabilized with portland type cement and fly

ash and reanalyzed to assure it would pass the toxicity characteristic leaching procedure analysis prior to off-site disposal.

Long-term monitoring was conducted for three years. Army records indicate that clean-up activities were completed at the Old Incinerator Ash Dumpsite (FTMP-06) and the Army is awaiting a response to the NFA request submitted to the GA EPD.

FTMP-07 – Building 357, DEH Maintenance (Oil/Water Separator). The IAP documented that the OWS at Building 357 received petroleum products from the floor drains of the wash rack. The tank was periodically inspected and cleaned under the Oil/Water Cleaning and Maintenance Contract. No further action is required under the IRP at this site (USACE, 2005).

During visual site inspection, a grassy area was observed to occupy the location of the former OWS. Army personnel confirmed that the OWS was removed. There are no known environmental concerns associated with this site. No evidence of contamination was observed during visual site inspections.

FTMP-08 – Building 370, Waste Oil Tank (Auto Craft Shop). The waste oil tank at Building 370 was removed and overexcavated based on petroleum odors and photoionization detector readings on June 8, 1993 (Anderson Columbia, 1993). Fort McPherson installed a new AST with containment system in 1994. Currently, the waste oil AST receives petroleum, oil, and lubricants products from the engine maintenance operations inside the Auto Craft Shop. The AST is active and is periodically cleaned by a waste oil recycling company.

No further action is required under the IRP at this site (USACE, 2005).

FTMP-09 – Building 143 PX Station. The former Army Air Force Exchange Service PX gas station operated from 1959 through 1996. Three 10,000-gallon gasoline tanks and one 500-gallon waste oil tank were reported to have operated at the site since 1961. Tank tightness testing conducted in 1987 indicated that the tanks tested tight, however, the dispensing lines failed. The product lines were replaced in 1988 and a large volume of contaminated soil was excavated. Clean backfill was placed in the excavation.

In 1990, tank removal activities were conducted for the waste oil tank. In June 1991, a previously unknown 10,000-gallon gasoline tank was discovered at the site. The tank was removed the same year. During tank removal soil contamination was detected. However, there was no soil removal conducted (Ground Water Services, 1991).

Site investigation was performed. Soil contamination around the UST system exceeded regulatory limits. Groundwater contamination was detected in two monitoring wells. A Corrective Action Plan (CAP) was submitted to the GA EPD in March 1994. The GA EPD UST Management program provided Fort McPherson with technical review comments in fiscal year 2004.

Army records documented that three gasoline tanks (MG1 through MG3) were removed in 1996 and the gas station was demolished. During tank removal a release of petroleum hydrocarbons was documented. Fort McPherson has proceeded with investigating the site by performing a soil vapor extraction pilot test and conceptual design. Groundwater monitor wells installed around the site are sampled semiannually to monitor benzene, toluene, ethylbenzene, and xylene contaminant migration in the groundwater. Free product has recently been detected in a monitoring well at the site. A free product recovery system was installed in 1988. However, it was only partially effective.

A passive fuel recovery system was installed in 1999. This system was not able to recover the fuel fast enough, so the free product skimmer system was re-installed. Fort McPherson is continuing the free product removal and performance monitoring. The plan of action is to perform a fate and transport evaluation to determine future action once free product is removed. This site is considered a REC.

FTMP-10 – Veterinary Clinic/Old PX Gas Station. The Veterinary Clinic, Building 105, was formerly a retail gasoline station. The facility operated from the early 1930s until 1958. Two USTs; one 10,000-gallon gasoline (105-MG1) and one 550-gallon waste oil (105-WO1) operated at the site. A 10,000-gallon UST, located adjacent to Building 105, was excavated and removed in February 2000. During excavation, soil contamination was encountered and the release was reported to GA EPD. The waste oil tank is reported to have been closed in place due to its location beneath the floor of Building 105.

Several phases of investigation were performed at the site. Soil and ground water contamination was identified. Free product was detected in two of the wells, and a free product recovery system was implemented. A geophysical investigation was performed to determine the extent of off-site contaminant migration. Contamination appears to be migrating northeast (off-Property). The Georgia Department of Transportation would not allow installation of well in US Highway 29. GA EPD concurred that all investigation/remedial activities will occur on-Property. Results of the investigation are presented in the CAP - Part A, dated November 1996. A CAP - Part B was submitted to GA EPD in March of 1997. Technical recommendations were provided. A passive fuel recovery system and three additional wells were installed in 1999. Free product removal and performance monitoring are currently on-going. This site is considered a REC.

FTMP-11 – Army Parking Lot (Building 360/363). This site was previously a vehicle maintenance storage yard in the early 1900s and is currently used as the commissary parking lot. Fort McPherson considered two locations, both proximal to the current commissary location, for the construction site of a new commissary facility. A site investigation (SI) was performed at one of the proposed locations. The DIS personnel, along with USACE, South Atlantic Division personnel, collected environmental samples from the first proposed site during the week of June 10, 1996. The samples were collected in order to determine if any adverse environmental conditions exist in this area that would preclude this site from consideration. Three soil samples were collected from beneath the current commissary asphalt parking lot. Of the three samples that were collected, two were found to contain TCE at concentrations that exceed the GA EPD Hazardous Site Response Act notification concentration.

DIS initiated an expanded site investigation (ESI) beginning August 9, 1996, encompassing the original location as well as an alternate location. The ESI was a combined effort involving the USACE, Savannah and South Atlantic Divisions, and DIS Environmental Division. Twelve locations were sampled to delineate the soil and groundwater chemistry both horizontally and vertically. The samples were analyzed for the constituents of concern (VOCs) identified in the SI. None of the soil samples that were collected during the ESI contained VOCs that exceed the Hazardous Site Response Act notification concentration.

DIS notified GA EPD of its intent to construct the new facility and of the findings of both the SI and ESI in a letter dated August 29, 1996. GA EPD responded with a letter dated September 19, 1996, which stated that soils containing TCE at the site must be removed prior to the initiation of construction at this site. The September 19, 1996 letter stated that corrective action or further

investigation of the groundwater at the site was not warranted, since the construction of the new facility had moved to another location (USACE, 2005).

Although this site was closed out of the IRP program in Sept 1996 (USACE, 2005), the site is considered a REC.

5.2.2 Military Munitions Response Program

MMRP eligible sites include ranges where Munitions and Explosives of Concern (MEC), discarded military munitions, and/or munitions constituents are known or suspected and the release occurred prior to September 30, 2002. Operational ranges are not eligible for the MMRP program. An Army Range Inventory was completed at Fort McPherson in January 2006 by Malcom Pirnie, Inc. Four MMRP Sites were identified; Atlanta NG Rifle Range, Atlanta NG Target Range, Pistol Range, and 300-Yard Target Range.

FTMP-001-R-01 – Atlanta NG Rifle Range. The former Atlanta NG Rifle Range was located in what is now the golf course. The rifle range was approximately 150 feet wide and 3,000 feet long (approximately 10 acres). It ran in a southerly direction from near the seventeenth hole to about where the small pistol range is located today. The hilly terrain at the southern end of the range provided a safety buffer. The rifle range was decommissioned as a range around the time of the Korean War and turned first into a 9-hole golf course for use by Army personnel in 1954, then later expanded into the current 18-hole golf course.

According to historical information, rifles and other small arms were used over the years on the Atlanta NG Rifle Range. A potential lead contamination exists, therefore, this site is considered a REC.

FTMP-002-R-01 – Atlanta NG Target Range. The former Atlanta NG Target Range is located on what is now the golf course in the lower southwest corner of Fort McPherson. The target range occupied approximately 26 acres. The Army took control of the property in 1910, but granted use of the area to the state of Georgia so they could use it as a National Guard facility. The NG property included some barracks and the Atlanta NG Rifle Range mentioned above. The property came back under Army control in 1941 when it was decided more land was needed to sustain the activities at Fort McPherson.

Two WWI artillery shells were uncovered near the 17th fairway during the installation of a drainage system and during maintenance operations on the golf course (one in 1985 and one in 1989). These artillery shells are the only MEC that have been found at the target range. The potential for the presence of additional MEC is currently unknown. No evidence exists that suggests the area was ever used as an artillery range. Installation personnel suspected that contaminated fill used during the construction of the 17th fairway may be the source of the munitions. The source of this fill is unknown. Historical evidence suggests that this area was not used as an artillery range.

A former Skeet Range was located within the Atlanta NG Target Range. The former range appears on 1949 and 1958 maps of the Property. The former range was constructed for recreational use and installation personnel believe that munitions use was limited to small arms ammunition. A potential lead contamination exists for the former Atlanta NG Target Range including the former Skeet Range, therefore, this site is considered a REC.

Pistol Range. The former Pistol Range covered 0.04 acre and was located in the northeast central portion of FTMP, west of Hedekin Field. The former Pistol Range was identified on 1900s and 1910s site maps. Munitions used were limited to small arms ammunition. The former Pistol Range is located in the approximate area as Building 508 and 509. The berm used as the impact area for the small arms fire has not been reworked since the Pistol Range was operational. A potential lead contamination exists, therefore, this site is considered a REC.

300-Yard Target Range. The former range covered 0.4 acres and was located in the central section of FTMP. The 300-Yard Target Range was identified on 1900s and 1910s site maps. According to historical information, munitions use was limited to small arms ammunition, with the direction of fire from east to west into a berm. The area where the former 300-Yard Target Range existed has been extensively redeveloped into a recreational area with pavement covering a portion of the range. The VSI results and an interview with the Range Officer with the Fort Gillem Range Control indicated that the former training activities have not impacted the environment. The 300-Yard Target Range is not considered a REC.

5.2.3 Previous Environmental Investigations

Fort McPherson's earliest environmental investigation involved a special entomological study for the investigation of a fish kill at the golf course Lake No. 1 in 1974. During 1975, USAEHA conducted a survey of the Property to evaluate the distribution of various pesticides in soil,

sediments, fish, and birds. Pesticide concentrations exceeding the threshold levels were found at two Property entrances, two lakes, a residential area, and a cantonment area. As a result, pesticide handling and storage procedures were reviewed and modified to decrease contamination in these areas (USAEHA, 1974).

In 1976 an analytical/environmental assessment was conducted for future development at the base, along with an environmental impact assessment; an analysis of existing facilities, and an environmental assessment. In 1979, a cultural reconnaissance of select areas was conducted at Fort McPherson.

The first extensive installation-wide environmental investigation completed at Fort McPherson was the installation assessment (USATHAMA, 1983). The installation assessment was the first systematic evaluation of toxic materials and hazardous waste handling and disposal at Fort McPherson and the potential for these substances to migrate off the Property. The assessment report discussed the environmental setting; land-use patterns; past and present operations at each building; training operations across the Property; handling and storage of industrial chemicals; chemical agents; biological agents; narcotics, radiological and pesticide/herbicide/fertilizer usage; disposal operations (liquid and solid waste treatment); demolition and burning grounds; and existing water quality data. The assessment identified several potential contaminant sources; however, available geologic evidence, contaminant source information, and limited water quality data did not indicate the off-Property migration of contaminants via surface or subsurface waters. Therefore, a follow-up survey by the USATHAMA was not recommended. However, modifications involving pesticide storage, transformers, petroleum, oil, and lubricants storage tanks, and vehicle wash racks were recommended and implemented. In 1985, the master plan was prepared for Fort McPherson.

In 1988 a PA was completed for all sites at Fort McPherson. A PA was also completed for IRP Site FTMP-01, Building 363 Paint Shop, which involved removing soil contaminated with solvents and oil-based paint. A copy of the PA was not available for review during the ECP generation. The site was designated RC and closed out of the IRP in April 1988.

An environmental assessment for construction of barracks was completed for the base in 1993 (FTM Planning Division, 1993). In the same year, an interim removal action tank removal was completed at FTMP-08, Building 370 (Auto Craft Shop); a soil vapor extraction pilot test was

initiated at FTMP-09; and a Phase I-II RI was completed at FTMP-06, along with a feasibility study. In 1994 a CAP was performed at FTMP-09.

After the environmental assessment, soil was excavated from site FTMP-06 in 1996. In the same year, an ESI was conducted at FTMP-10 in August, followed by additional studies relating to a CAP A and B at the same site in November. In 1997 these studies continued at FTMP-10 during the performance of the CAP A and B, along with a geophysical investigation at the same site.

In 1998, a free product recovery system was installed at site FTMP-09, followed by the installation and operation of passive fuel recovery systems at sites FTMP-09 and FTMP-10 in 1999.

The phase completion date for FTMP-09 and FTMP-10 and the completion date of the IRP are projected this year. The description and current status of each of these IRP sites discussed above is addressed in detail in Section 5.2.1 (USACE, 2005).

5.3 Hazardous Substances

Several hazardous substances associated with base operations at Fort McPherson include used solvents, paints, acids and bases, toxins, aerosols, heavy metals, mercury-containing items, and other materials associated with laboratory operations, building and vehicle maintenance.

Identified hazardous substances include arsenic, asbestos, chlorine, lead, nickel hydroxide, mercury, urea, and xylenes. Table 9 summarizes the hazardous substances at Fort McPherson.

Table 9 redacted.

Fort McPherson tracks and maintains their hazardous materials and chemical inventory data through the HMMS. This data is collected on hazardous materials and hazardous waste from all agencies that handle these substances at Fort McPherson for input to the HMMS.

Currently hazardous material disposition is reported by various departments and tenants for input into the HMMS system as materials are received and disposed. This information is used to facilitate centralized hazardous material control and management and to assist with environmental reporting.

Emergency Planning and Community Right to Know Act (EPCRA) Tier Two reports were reviewed for calendar years 2004 and 2005. Urea was reported as being stored in quantities greater than the storage threshold. Section 312 of EPCRA allows for an exemption of “any substance to the extent that it is used as a research laboratory, a hospital, or other medical facility under the direct supervision of a technically qualified individual.” Therefore, the storage of these chemicals was not examined.

Hazardous Waste. Under the State of Georgia regulations, Fort McPherson, which includes all of its tenants and other entities, is the sole “generator” for regulatory purposes and is listed as a SQG. Although Fort McPherson operates as a SQG, the hazardous waste yard is run as a 90-

day site, a more stringent requirement of large quantity generator status. Fort McPherson can accumulate hazardous waste for up to 90 days. The Fort McPherson 90-day accumulation point is located in Building 353, which is in the vicinity of Roads and Grounds operations. There is a regulatory exception to the 90-day accumulation rule: a generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in §261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste. Once the amount of waste exceeds 55 gallons, the excess waste must be moved within three days to a 90-day storage area. As listed in the Hazardous Waste Management Plan (HWMP), there are four satellite accumulation points for the collection of materials that would be classified as hazardous:

- Building 125 - Lawrence Joel Army Health Clinic
- Building 340 - Golf Course Equipment Maintenance
- Building 346 - Roads and Grounds
- Building 370 - Auto Pride Center

Visual site inspections conducted at Buildings 346 and 370 did not reveal any evidence of leaks or spills. Fort McPherson does not have a permit to treat or dispose of hazardous substances on base; therefore, any hazardous waste accumulated is transported off the Property for treatment, storage, or disposal through a Defense Reutilization and Marketing Office (DRMO) contractor. All hazardous substances at Fort McPherson are managed under the July 2003 HWMP. The HWMP outlines the regulations, training, documentation, tracking, waste recycling/minimization and emergency procedures necessary to comply with the applicable federal, state and Army requirements for managing hazardous substances.

A DD Form 1348-1, completed by the environmental office waste contractors for submittal to the DRMO, must accompany all hazardous wastes turned in to 90-day accumulation points. The submittal of these documents initiates the process for off-site transportation and disposal of the waste generated on site. Hazardous wastes can be transported off Property only by licensed hazardous waste transporters in possession of completed Uniform Hazardous Waste Manifests.

Four former magazines were constructed in 1938 for the storage of small arms, chemical munitions, pyrotechnics, trinitrotoluene, and dynamite. The magazines were visible in a general site map dated 1993 but do not appear on the 2000 or 2004 general site map. One operational magazine is located west of Hedekin Field. The magazine is first shown on a 1904 map of the Property. Currently blanks for use during Hedekin Field ceremonial events are stored in the

magazine (Malcolm Pirnie, Inc., 2006). Interviews with installation personnel led to the conclusion that the magazines are not considered a REC.

5.4 Petroleum and Petroleum Products

Fort McPherson developed a listing of all known historic USTs and ASTs and their disposition. Table 10 includes a complete listing of all known tanks at the Property. Tanks in **bold letters** are those tanks that are still active per the VSIs and current inventory maintained by the installation staff.

Table 10 redacted.

Fort McPherson currently has nine active USTs and five active ASTs, the remaining tanks have either been removed or closed in place. The tanks were primarily used for the storage of fuel oil, gasoline, diesel, and waste oil.

A summary of the available documentation for historic and current tanks at Fort McPherson is as follows:

- During tank removal activities, the tank associated with Building 183 (183-FO1) had no evidence of soil contamination.
- During tank removal activities, soil contamination was detected at Buildings 205 (one tank, 205-MG1), 346 (one tank, 346-W01) and 370 (one tank, 370-W01). Contaminated soil was over-excavated.
- During tank removal at Buildings 160 (six tanks, 160-FO1, 160-FO2, 160-FO3, 160-FO4, 160-FO5, and 160-FO6) and 164 (one tank, 164-MG1), not all contaminated soil could be removed due to the presence of utility lines. Because of residential soil contamination one monitoring well was installed at each of the two UST sites to deny or confirm the presence of groundwater contamination. Groundwater analytical results were not available for review during the generation of the ECP.

- Although tanks at Buildings 208 (two tanks, 208-FO2 and 208-FO3) and 302 (one tank, 302-SOL1) were reported to have been closed, there was no additional information regarding site conditions during closure activities.
- There was no available information regarding the status of the tanks at nine of the UST locations. Buildings 40 (one tank, no label), 104 (one tank, no label), 106 (one tank, no label), 207 (one tank, 207-DF1), 214 (two tanks, 214-DF1 and 214-DF2), 302 (two tanks, 302-N1 and 302-N2), 326 (one tank, 326-DF1), 345/346 (two tanks, 346-MG1 and 346-MG2), and 650 (one tank, no label).
- Three of the UST sites are managed under the IRP program: Buildings 105 (two tanks, 105-MG1 and 105-WO1), 143 (four tanks, 143-WO1, 143-MG1, 143-MG2, and 143-MG3), and 370 (one tank, 370-WO1).
- There are currently active USTs at five of the buildings: Buildings 160 (two tanks, 160-FO7 and 160-FO8), 200 (one tank, 200-DF1), 350 (two tanks, 350-MG3 and 350-DF2), 368 (three tanks, 368-MG1, 368-MG2, and 368-DF1), and 651 (one tank, 651-MG1). Except for the tank at Building 200, all the tanks were installed in the 1990s and have shown no evidence of release of petroleum products.
- There were no documented releases for any of the ASTs at Fort McPherson. Visual site inspections of the current ASTs did not reveal any evidence of leaks or spills.
- Documentation of No Further Action concurrence by the GA EPD exists for five of the removed USTs and one location where there was a misidentified presence of a UST (Building 101). The locations include Buildings 41 (one tank, 041-FO1), 200 (one tank, 200-DF1), 350 (3 tanks, 350-DF1, 350-MG1, and 350-MG2), 454 (one tank, 454-MG1), and 651 (one tank, 651-MG1).
- Tanks used for storing heating oil or petroleum products were not regulated prior to 1988. Tanks used for storing heating oil for consumptive use of the premises where stored are excluded from Federal and GA EPD rules regardless of when the tank was installed or removed, including existing heating oil tanks. Although heating oil tanks are not regulated, releases of contaminants into the environment by these tanks are regulated.

Cleanup was conducted at seven of the UST sites (Buildings 105, 143, 200, 302, 350, 454, and 651) at Fort McPherson that are listed in the GA EPD LUST database. The USTs at Buildings 200, 350, 454 and 651 have been granted by the State a ‘no further action’ status. Buildings 105 and 143 are listed as in remediation. The UST at Building 302 was closed and no further information was available regarding site conditions during closure activities.

Building 105. In February 1990, a 10,000-gallon UST was excavated and removed from Building 105. During excavation, stained soil was encountered. Several phases of investigation have been performed at this site. Soil and groundwater contamination existed at the site. Free product was detected in two of the wells, and a free product recovery system was installed. A geophysical investigation was performed to determine the extent of off-site contaminant migration. Contamination appears to be migrating northeast (off-property). GA DOT would not allow installation of well in US Highway 29. GA EPD concurred that all investigation/remedial activities will occur on-Property. Results of the investigation are presented in the CAP - Part A, dated November 1996. A CAP - Part B was submitted to GA EPD in March of 1997. Technical recommendations were provided. A passive fuel recovery system and 3 additional wells were installed in 1999. The original schedule predicted RC in FY2006.

Building 143. Free product was detected in a monitoring well at the Building 143 site in 1998 and a free product recovery system was installed. A passive fuel recovery system and three additional wells were installed in 1999. Free product removal and performance monitoring are currently ongoing.

Building 200. Army records indicate that one 10,000-gallon diesel tank was installed in 1986 and is currently active at the site. Army records documented that in 2000, the Environmental Compliance Assessment System identified that there was a confirmed release with a corrective action performed at the site. A no further action concurrence was obtained from the GA EPD in 2004. The GA EPD confirmed that a no further action concurrence was granted in 2004.

Building 302. One UST was closed and no further information was available regarding site conditions during closure activities.

Building 350. Three tanks were removed in December 1991. Two tanks were installed in 1992 and are currently active. A no further action concurrence was obtained from the GA EPD in 1999.

Building 454. In 1993, one 500-gallon UST was removed with over excavation of contaminated soil. Follow-on investigations identified soil and groundwater was contaminated with benzene, toluene, ethylbenzene, and xylenes. Significant natural attenuation occurred between 1993 and 1996 such that the soil and groundwater contaminant levels were below threshold criteria. No further investigation and no Part B CAP were required (Anderson

Columbia, 1993). Records indicate that a no further action concurrence was obtained from the GA EPD in 1996.

Building 651. One 1,000-gallon gasoline tank currently exists at the site. Army records indicate that a no further action concurrence was obtained from the GA EPD in 1999. Historical and current storage tanks located at Fort McPherson are presented on Figure 14.

Oil/Water Separators. Four OWS currently exist on the Fort McPherson property. Oil/water separators are periodically inspected and cleaned under an oil/water cleaning and maintenance contract. Four OWS are active: Building 350 (Capacity 2,000 gallons); Building 353 (Capacity 1,000 gallons); Building 370 (Capacity 2,000 gallons); And Building 336 (Capacity not provided). A new oil/water separator was installed at Building 370 in 1999 (IRP site FTMP-05). Visual site inspections of the current OWS did not reveal any evidence of leaks or spills. An oil/water separator at Building 187 (capacity 1,000 gallons) and an oil/water separator at Building 345 (capacity 4,500 gallons) were reportedly removed in 1997. No releases were documented at these former OWS.

5.5 Polychlorinated Biphenyls

All transformers with PCB concentrations greater than 50 parts per million were replaced and removed from the Property as of January 5, 1987. An additional survey was performed in 2001, and none of the sampled transformers were found to contain PCBs at concentrations above 50 parts per million. In-service transformers with residual PCBs are replaced when they fail. There are no documented PCB leaks or spills at Fort McPherson, however, in 1997, according to the installation Environmental Division Chief, a transformer fell from its utility pole near Building 401 and leaked non-PCB oil. The spill was cleaned up, and the affected soil and the transformer was properly removed and disposed. A report documenting the spill information was not available for review during the ECP report generation.

PCB concentrations in approximately 16 of the transformers listed could not be verified due to field conditions. According to DPW, this was due to the surveyor's inability to obtain the required information resulting from bucket height restrictions and/or insufficient labeling on the transformers. During the VSI, no evidence of leaks or spills was observed at transformer locations.

On July 29, 1981, a transformer in the area of the tennis courts leaked fluid which contaminated an area 6 meters in diameter. O&H Materials, Inc., was contracted to clean up the spill. The spill material and contaminated soil was excavated (USATHAMA, 1983).

Due to the age of many of the buildings on the property, PCBs may also be contained in the ballasts of older light fixtures. The presence of PCBs in the ballasts has not been confirmed; however, based on the construction date of the buildings, it is possible that some of these ballasts could potentially contain PCBs. Any light ballast not marked with “No PCBs” should be assumed to contain PCBs and management and disposal of these light ballasts must be in accordance with local, state, and federal requirements.

5.6 Asbestos-Containing Materials

Fort McPherson has an Asbestos Management Program Plan, dated October 2001, which provides specific guidance for addressing asbestos related issues. Table 11 presents the known surveys for ACM at Fort McPherson.

Table 11

Fort McPherson Asbestos-Containing Material Surveys

Building Number	Date	Asbestos		O&M Plan
		Friable	Nonfriable	
22	1994	Y	Y	Y
27	1994	Y	Y	Y
28	1994	Y	Y	Y
40	1997	Y	Y	Y
41	<i>Not Provided</i>	<i>U</i>	<i>U</i>	<i>N/A</i>
46	1995	<i>N</i>	Y	<i>U</i>
56	1994, 1999	Y	Y	Y
58	1994	Y	Y	Y
59	1994	Y	Y	Y
60	1994	Y	Y	Y
61	1994	<i>N</i>	Y	Y
62	1994	Y	Y	Y
63	1994	<i>N</i>	Y	Y
100	1995, 1997	Y	Y	Y
101	1994, 1996	Y	Y	Y

Building Number	Date	Asbestos		O&M Plan
		Friable	Nonfriable	
105	1996	N	Y	Y
132	2001	Y	Y	Y
167	1997	Y	Y	Y
170	1994	Y	Y	Y
171	1994	Y	Y	Y
184	1994	N	Y	N
205	2002	N	Y	Y
352	1999	N	Y	N
356	<i>Not provided</i>	Y	Y	Y
358	<i>Not provided</i>	Y	Y	Y
422	1994	Y	Y	Y
532	1994	N	Y	Y

Source - PEM, Asbestos Surveys, 1995.

Source – CESAS, Asbestos Surveys, 2001-2002.

N/A – Not available.

O&M – Operation and Maintenance.

U – Unknown.

Initial and subsequent inspection surveys have been conducted over the years to assess the environmental status of a number of facilities; however, not every facility was surveyed nor was every survey comprehensive.

Buildings having the highest priority for an ACM survey were those scheduled for near-term renovation/demolition, those suspected of having ACM in poor condition, and buildings occupied by children, medical facilities, or public areas. There are 226 facilities on the Fort McPherson property that have no documentation of asbestos surveys performed. Some of these facilities are recently constructed, renovated, scheduled for demolition, and/or used for equipment storage.

From 1994 to 2002, ACM surveys were conducted in 27 buildings. Of the 27 structures surveyed, 26 have ACM survey results documentation; 18 were found to have both friable and non-friable asbestos; and 8 were found to have only non-friable asbestos. All structures with reported asbestos (with the exception of Buildings 46, 184 and 352) have an asbestos operation and maintenance plan in place. Building 41 lacks documentation of an asbestos survey.

Current records indicate there have been several asbestos remediation of abatement projects at the Property. The surveys have been conducted to identify asbestos containing materials in place and evaluation of friability. Most site-specific abatement projects have occurred on an as-needed

basis. Based on the condition, amount, and location of the asbestos, buildings were assigned a hazard category number from 1 to 4, with the number “1” meaning a current exposure hazard and the number “4” meaning no exposure hazard. The majority of the surveys assessed structures with low to moderate disturbance potential. Only the structures that had a high disturbance potential or an imminent health hazard were abated. Records show that in 1998 ACM such as roofing, shingles, and insulation were removed from five buildings; Buildings 41, 56, 60, 62, and 167.

According to installation personnel, asbestos has not been encountered during the repair of steam lines on the Property.

5.7 Lead and Lead-Based Paint

According to the *Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property – A Field Guide* (DoD/EPA, 1999) all residential structures constructed prior to 1979 must be evaluated for lead-based paint. An evaluation consists of an inspection (sampling) and a risk assessment. Additionally, composite soil samples should be collected from the drip line of the roof and bare-soil areas of the yard of these structures. This guidance also requires that structures completed prior to 1960 receive an evaluation and abatement if necessary.

In 2003, a lead hazard management program plan was approved for implementation at Fort McPherson (DPW, 2003). In that plan, buildings have been prioritized for lead hazard assessments by date of construction. Buildings assessments to date, however, have not included soil sampling for potential contamination.

Surface dust sampling was conducted in family housing to assess lead concentration in dust. Sampling surveys have been conducted for 102 residential units at Fort McPherson. Of the 102 units tested, 34 had at least one sample that exceeded the EPA limits for a lead-dust hazard. No records were located which documented follow up surveys conducted by the facility. No documentation of surface dust sampling was found for nine family housing buildings (Buildings 20, 22, 27, 28, 168, 475, 476, 512, and 525) constructed prior to 1978.

Table 12 summarizes the results from the 1994, 1997, and 2002 lead surveys at Fort McPherson.

Table 12
Lead Survey Results

Building Number	Date	Result/Lead Concentration ($\mu\text{g}/\text{ft}^2$)*	Sample Location
Housing Unit #2E	Aug 1994	Positive	throughout, except cabinet
Housing Unit #3E	Aug 1994	Positive	throughout
Housing Unit #3W	Aug 1994	Positive	throughout
Housing Unit #4E	Aug 1994	Positive	throughout, except walls and ceilings
Housing Unit #4W	Aug 1994	Positive	throughout, except ceilings and cabinet
Housing Unit #6W	Aug 1994	Positive	throughout, except screen enclosure, ceiling, and cabinet
Housing Unit #7E	Aug 1994	Positive	throughout
Housing Unit #7W	Aug 1994	Positive	throughout, except cabinet
Housing Unit #8E	Aug 1994	Positive	throughout, except ceilings and cabinet
Housing Unit #8W	Aug 1994	Positive	throughout, except cabinet
Housing Unit #11E	Aug 1994	Positive	throughout, except porch floor
Housing Unit #11W	Aug 1994	Positive	throughout
Housing Unit #12W	Aug 1994	Positive	throughout, except porch floor and cabinet
Housing Unit #13E	Aug 1994	Positive	throughout
Housing Unit #13W	Aug 1994	Positive	throughout, except hand rail
Housing Unit #14E	Aug 1994	Positive	throughout, except cabinet
Housing Unit #15E	Aug 1994	Positive	throughout, except walls, hand rail, and rail post
Housing Unit #19E	Aug 1994	Positive	throughout
Housing Unit #19W	Aug 1994	Positive	throughout
Housing Unit #522	Aug 1994	Positive	throughout, except porch rail, walls, and shelf
Building 40 (BOQ)	Apr 1997	Positive	throughout, except floors and sheetrock/concrete walls
Housing Unit 1E	Dec 2002	300	dining room floor, NW corner
Housing Unit 1W	Dec 2002	BRL	N/A
Housing Unit 2E	Dec 2002	72	living room floor, at pocket doors
Housing Unit 2W	Dec 2002	300	living room floor, by fireplace mantel
Housing Unit 3E	Dec 2002	BRL	N/A
Housing Unit 3W	Dec 2002	BRL	N/A
Housing Unit 4E	Dec 2002	BRL	N/A
Housing Unit 4W	Dec 2002	62	dining room floor, under E window, S end
Housing Unit 5	Dec 2002	BRL	N/A
Housing Unit 6E	Dec 2002	47	kitchen floor, at exit door
		64	bedroom 1 floor, at entry door

Building Number	Date	Result/Lead Concentration ($\mu\text{g}/\text{ft}^2$)*	Sample Location
Housing Unit 6W	Dec 2002	BRL	N/A
Housing Unit 7E	Dec 2002	BRL	N/A
Housing Unit 7W	Dec 2002	BRL	N/A
Housing Unit 8E	Dec 2002	BRL	N/A
Housing Unit 8W	Dec 2002	BRL	N/A
Housing Unit 9E	Dec 2002	BRL	N/A
Housing Unit 9W	Dec 2002	BRL	N/A
Housing Unit 10	Dec 2002	BRL	N/A
Housing Unit 11E	Dec 2002	2000	dining room, right window sill
Housing Unit 11W	Dec 2002	BRL	N/A
Housing Unit 12E	Dec 2002	120	dining room floor, below SW window
		52	living room floor, below NW window
Housing Unit 12W	Dec 2002	2100	dining room floor, below SE window
		59	foyer floor, under window
Housing Unit 13W	Dec 2002	BRL	N/A
Housing Unit 14E	Dec 2002	42	dining room floor, below fireplace
Housing Unit 14W	Dec 2002	BRL	N/A
Housing Unit 15E	Dec 2002	BRL	N/A
Housing Unit 15W	Dec 2002	BRL	N/A
Housing Unit 17E	Dec 2002	72	kitchen floor, at back door
Housing Unit 17W	Dec 2002	110	kitchen floor, vat exit door
Housing Unit 18	Dec 2002	490	bedroom 2, window #2 sill
Housing Unit 136	Dec 2002	BRL	N/A
Housing Unit 137	Dec 2002	BRL	N/A
Housing Unit 138	Dec 2002	BRL	N/A
Housing Unit 139	Dec 2002	BRL	N/A
Housing Unit 140	Dec 2002	BRL	N/A
Housing Unit 141	Dec 2002	BRL	N/A
Housing Unit 142	Dec 2002	BRL	N/A
Housing Unit 409A	Dec 2002	BRL	N/A
Housing Unit 409B	Dec 2002	160	living room/dining room floor, by rear door
Housing Unit 409C	Dec 2002	BRL	N/A
Housing Unit 409D	Dec 2002	BRL	N/A
Housing Unit 409E	Dec 2002	BRL	N/A
Housing Unit 409F	Dec 2002	BRL	N/A
Housing Unit 409G	Dec 2002	BRL	N/A
Housing Unit 409H	Dec 2002	BRL	N/A
Housing Unit 410A	Dec 2002	BRL	N/A
Housing Unit 410B	Dec 2002	BRL	N/A

Building Number	Date	Result/Lead Concentration ($\mu\text{g}/\text{ft}^2$)*	Sample Location
Housing Unit 410C	Dec 2002	BRL	N/A
Housing Unit 410D	Dec 2002	BRL	N/A
Housing Unit 410E	Dec 2002	BRL	N/A
Housing Unit 410F	Dec 2002	BRL	N/A
Housing Unit 410G	Dec 2002	BRL	N/A
Housing Unit 506A	Dec 2002	BRL	N/A
Housing Unit 506B	Dec 2002	BRL	N/A
Housing Unit 507A	Dec 2002	BRL	N/A
Housing Unit 507B	Dec 2002	BRL	N/A
Housing Unit 508A	Dec 2002	BRL	N/A
Housing Unit 508B	Dec 2002	BRL	N/A
Housing Unit 509A	Dec 2002	BRL	N/A
Housing Unit 509B	Dec 2002	BRL	N/A
Housing Unit 510A	Dec 2002	BRL	N/A
Housing Unit 510B	Dec 2002	BRL	N/A
Housing Unit 515A	Dec 2002	BRL	N/A
Housing Unit 515B	Dec 2002	BRL	N/A
Housing Unit 523A	Dec 2002	BRL	N/A
Housing Unit 523B	Dec 2002	BRL	N/A
Housing Unit 524A	Dec 2002	BRL	N/A
Housing Unit 524B	Dec 2002	BRL	N/A
Housing Unit 526A	Dec 2002	BRL	N/A
Housing Unit 526B	Dec 2002	BRL	N/A
Housing Unit 527A	Dec 2002	BRL	N/A
Housing Unit 527B	Dec 2002	BRL	N/A
Housing Unit 528A	Dec 2002	BRL	N/A
Housing Unit 528B	Dec 2002	BRL	N/A
Housing Unit 532	Dec 2002	BRL	N/A
Housing Unit 533A	Dec 2002	BRL	N/A
Housing Unit 533B	Dec 2002	BRL	N/A
Housing Unit 534A	Dec 2002	BRL	N/A
Housing Unit 534B	Dec 2002	BRL	N/A
Housing Unit 535A	Dec 2002	BRL	N/A
Housing Unit 535B	Dec 2002	BRL	N/A
Housing Unit 536A	Dec 2002	BRL	N/A
Housing Unit 536B	Dec 2002	BRL	N/A
Housing Unit 537A	Dec 2002	BRL	N/A
Housing Unit 537B	Dec 2002	BRL	N/A
Housing Unit 538A	Dec 2002	BRL	N/A

Building Number	Date	Result/Lead Concentration ($\mu\text{g}/\text{ft}^2$)*	Sample Location
Housing Unit 538B	Dec 2002	BRL	N/A
Housing Unit 601A	Dec 2002	BRL	N/A
Housing Unit 601B	Dec 2002	BRL	N/A
Housing Unit 602A	Dec 2002	BRL	N/A
Housing Unit 602B	Dec 2002	BRL	N/A
Housing Unit 603A	Dec 2002	BRL	N/A
Housing Unit 603B	Dec 2002	BRL	N/A
Housing Unit 604A	Dec 2002	BRL	N/A
Housing Unit 604B	Dec 2002	BRL	N/A
Housing Unit 605A	Dec 2002	BRL	N/A
Housing Unit 605B	Dec 2002	BRL	N/A

* Results concentration listed for the 2002 survey results.

$\mu\text{g}/\text{ft}^2$ – micrograms per square foot.

Source - Diversified Environmental Management, Inc., 1994.

Source - Undocumented, 1997.

Source - Compass Environmental, Inc., 2002.

BRL – Below Regulatory Limit.

N/A – Not Applicable.

There are 203 facilities on the Fort McPherson property that have no documentation of lead surveys performed. Some of these facilities are new construction, renovated, scheduled for demolition, and/or equipment storage.

Most facilities and buildings at Fort McPherson were constructed before the DoD ban on the use of lead-based paint in 1978 and are likely to contain one or more coats of such paint. In addition, some facilities constructed immediately after the ban may also contain lead-based paint, because inventories of such paints that were in the supply network were likely to have been used at these facilities.

5.8 Radioactive Material

Eighteen buildings, building complexes or open areas at Fort McPherson have been identified as areas where radioactive material was used, stored, or potentially disposed (Cabrera Services, 2007). Historical information was reviewed to determine if there was sufficient data to declare buildings as “Impacted” or “Non-Impacted” in accordance with Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) methodology. According to MARSSIM, areas are divided into risk categories defined as follows:

Impacted (MARSSIM Class 1 and 2) – Areas with moderate to high probabilities of potential contamination.

Impacted (MARSSIM Class 3) – Areas with very low potential for contamination but with insufficient information to justify a non-impacted classification.

Non-Impacted (No Survey Needed) – Areas with no potential for residual contamination.

A summary of the buildings or areas where radioactive material was used, stored, or potentially disposed is provided in Table 13.

Table 13

Fort McPherson Buildings/Areas with Radioactive Material Use/Storage History

Building Number	Classification	Building/Area Name & Use	Current Tenant and Conditions
105	Non-Impacted	Old gas station and PX	Existing, Renovated in 1981 and became Veterinary Clinic
128-131	Non-Impacted	Hospital Additions	Existing, Old wards renovated into administrative space
161, 163	Non-Impacted	Toxicology Lab (161), Old Veterinary Clinic (163)	Demolished
170, 171	Non-Impacted	Old Hospital	Existing, Administration space for Installation Management Agency-Southeast Regional Office (IMA-SERO).
179	Impacted, MARSSIM Class 3	Old Laboratory, Education Center	Existing, Inspector General's Office
180	Impacted, MARSSIM Class 2	3 rd US Army Medical Lab, and CHPPM South	Existing, CHPPM
205, 206	Non-Impacted	Training Support Center (Photography Labs, Television Studios, administrative space)	Existing, Renovated in 1991, when photography lab moved to 206 and 205 was renovated into administrative space
346	Non-Impacted	Consolidated Maintenance	Existing, Consolidated Maintenance
356	Non-Impacted	Electronic Communications Workshop	Demolished
363	Impacted, MARSSIM Class 1	DOL Work Area, Electronic Communications Workshop (Annex 4), Vehicle Maintenance (Annex 6 and 7)	Existing, 3 rd Army Headquarters, since 1984
N/A	Non-Impacted	Burn Pit	Paved over as parking lot

Building Number	Classification	Building/Area Name & Use	Current Tenant and Conditions
N/A	Non-Impacted	Army in Atlanta Museum	Demolished

A copy of the Cabrera Services radiological Historical Site Assessment is included as Addendum 1.

5.9 Historical Landfills/Dumps

See **Section 5.2.1** for information on FTMP-06, the former Incinerator Ash Dumpsite.

Several disposal pits and burial activities were identified in the reviewed aerial photographs. In a 1944 aerial photograph mounded material was visible in the northwest portion of the Property. The debris was not viewed in later aerial photographs and the area has been redeveloped into a golf course. Debris and mounded material were visible in the southeast portion of the Property in the 1968 and 1978 aerial photographs reviewed. The VSI did not indicate any debris or mounded material in the area. No further information was available regarding the burial activities and disposal pits. These disposal pits are not considered a REC.

5.10 Explosives-Contaminated Structures

Four former magazines were constructed in 1938 for the storage of small arms, chemical munitions, pyrotechnics, Trinitrotoluene, and dynamite. The magazines were visible in a general site map dated 1993 but do not appear on the 2000 or 2004 general site map (Malcolm Pirnie, Inc., 2006). One operational magazine is located west of Hedekin Field. The magazine is first shown on a 1904 map of the Property. Currently blanks for use during Hedekin Field ceremonial events are stored in the magazine. Interviews with installation personnel revealed that the magazines are not considered a REC.

5.11 Radon

According to the EPA's categorization of radon zones, Fulton County, Georgia, is qualified as a radon Zone 1, meaning that it has a predicted average indoor radon screening level greater than 4 pCi/L. The EPA's action level for radon is 4 pCi/L.

A radon survey was conducted by Tech/Ops Landauer, Inc., for priority buildings at Fort McPherson during 1990. This survey included the Child Development Center and Health Clinic (U.S. Department of Army, 1990). In January 1999, a radon survey was conducted by Radon Georgia for Building 200 basement (U.S. Department of Army, 1999). All detections for radon

were below the EPA action level of 4 pCi/L. No other information regarding building surveys for radon at Fort McPherson was available.

5.12 Pesticides

Fort McPherson has an Integrated Pest Management Plan which covers both Fort McPherson and Fort Gillem. The pest management plan for Forts McPherson and Gillem describes the pest management requirements and outlines the resources necessary for surveillance and control of pests. It also describes the administrative, safety, and environmental requirements of the program. The program involves DoD and Georgia-certified pesticide applicators; staffs of the DIS environmental office, the Preventive Medicine Services and the Veterinary Activity; building occupants; and facility managers to monitor and control pests. Pests included in the plan are weeds and other unwanted vegetation; termites; ticks, mosquitoes and other biting insects; vertebrate pests, such as birds, rodents, and snakes; flying and crawling insects; and spiders. Building 341 is currently the location of the pesticide storage and mixing facility; however, pesticide storage and mixing has occurred at a number of locations on Fort McPherson. From review of USAEHA pest management reviews (various dates), records indicate that historic pesticide storage and mixing occurred at the following sites:

- Building 343
- Building 363, Doors 16 and 18
- Building 356
- Building 456.

USAEHA pest management reviews and army environmental compliance assessments that were conducted starting in the 1970s have indicated that pesticide storage and mixing operations were inadequate at Buildings 341, 356, and 456.

Building 341 was constructed in 1997 as the new combined golf course and pest control storage facility. The 2000 Environmental Compliance Assessment System identified deficiencies in the pesticide storage and mixing operation. The facility had no berms and the storage and mixing room floors were badly cracked. The building is also 100 feet upgradient from a stream and personnel were mixing pesticides in the parking lot, directly adjacent to a storm drain. The building was upgraded in 2002 to bring the facility into compliance. The concrete floor was sealed, curbing and exhaust installed, and the floor drains were separated from the mixing areas. VSI was conducted at Building 341 during ECP generation and it was observed that the

deficiencies noted above had been rectified. VSI results and interviews with installation personnel reveals that Building 341 is currently not considered a REC.

Building 343 was demolished in 1984, but was reported as a pesticide storage location in the 1983 installation assessment. The report indicated that the facility lacked continuous curbing to contain spillage. It was reported that the herbicides in Building 343 were moved to Building 356 for mixing. No mixing of pesticides took place in Building 343. Building 343 was reportedly utilized as a tool storage area. Interviews with installation personnel revealed no environmental condition associated with the site. Building 343 is not considered REC.

Building 356 was demolished in 2000, but acted as the pest control facility since at least 1979. Prior to its use as a pest control facility, it was identified in a 1958 survey as a field maintenance shop where gun soldering, spray painting, woodworking, and machining and grinding occurred (USAEHA, 1958). Both the 1990 USAEHA environmental program review and the 1996 Environmental Compliance Assessment System identified inadequacies in the facility construction and ventilation. There was no continuous curbing and the floor was not sealed. Filling of spray containers was conducted in the vehicle bay outside Building 356. This area was reported as being adequate for the filling function. Building 356 is currently considered a REC.

Building 363 currently operates as Headquarters for the 3rd US Army. Historically, a portion of it was used as the DEH pesticide storage area for 10 years (approximately 1970-1979). Pesticides were also mixed outside of Building 363 prior to the use of Building 356. Building 363 is considered a REC.

Building 456, which also has been demolished, acted as the golf course pesticide storage and mixing location until the construction of Building 341. Several previous environmental reviews identified inadequacies in the facility construction and operations. Part of the building had a dirt floor and the remainder of the building had a concrete floor that was not sealed. The 1983 installation assessment reported that the building did not have continuous curbing, although that deficiency was reportedly corrected by 1990, as reported in the 1990 USAEHA program review. The outside mixing area was also reported as inadequate. The mixing pad was not curbed, it had a drain that could not be closed, and it was directly upgradient of Utoy Creek. Interviews with Installation personnel indicated that prior to demolition, broken containers of chlordane were present in the building. Building 456 is considered a REC.

5.13 Other Identified Concerns

The primary laboratory operations on the Property were associated with Building 170 (U.S. Army Health Clinic); Building 100 (DENTAC Lab); and Building 180 (USACHPPM). Prior to 1977, a clinical laboratory in Building 170 was reported to discharge waste solvents and reagents to the sanitary sewer. Records show that silver flakes were recovered from Building 100 in 1982. It was reported that in 1979 hazardous chemicals (dyes, azides, cyanides, phenols, acids, pyridine, chromium waste) were removed from Building 180 and sent to Fort Gillem. The laboratory was closed in 1999 and all chemicals were removed from the building. Based on interviews with installation personnel and record reviews, there is no evidence of a release to the environment. Buildings 100, 170, and 180 are not considered a REC.

Two fish kills were recorded in the lakes. One occurred in October 1974 in Lake No. 1. Analysis of soil/sediment samples yielded high levels of arsenic and lead. However, arsenic residues were undetectable in the water and fish samples, indicating that contaminants had not migrated into Lake No. 1. The exact cause of the fish kill was never determined. A second fish kill involving approximately 1,000 fish and various other aquatic species occurred in Lake No. 2 in May 1975. USAEHA analyzed the water and the animals for a variety of heavy metals and pesticides. It was concluded that the deaths were caused by methoxychlor contamination. The source of the pesticide implicated in the incident was not known, and the situation has not occurred again. The kill took place when the water level in the lake was unusually low, and this lower volume of water may have compounded the pesticide problem. Lakes 1 and 2 were dredged and reconfigured with aerators installed within the last five years. Any potential contaminants related to the old fish kill of the 1970s are no longer present. Recent sampling indicated that there are no contaminants present in the lakes.

Dry cleaning activities involving chlorinated solvents were conducted in Buildings 208/209 and 302. The buildings were demolished between 1988 and 1990. The previous dry cleaning sites are considered a REC.

5.14 Identification of Uncontaminated Property

The U.S. Army's ECP process characterizes the existing environmental conditions at a given site. Properties were classified according to their environmental condition based on DoD guidance into the following categorization:

Most of the areas on the Property were identified as “uncontaminated” property (Category 1) comprising approximately 389 acres. **Category 1 - areas in which no release or disposal of hazardous substances or petroleum products had occurred, and to which there had been no migration of such substances from adjacent areas.** Historical records reviewed and the VSI found no indication that the release or disposal of hazardous substances or their derivatives has occurred, including no migration of these substances from adjacent areas at the following properties:

- Building 346 Oil/Water Separator (FTMP-04), Building 357 DEH Maintenance OWS (FTMP-07)
- USTs that had no evidence of contamination (Building 368)
- Former and current OWS
- All AST areas
- Hazardous waste collection areas
- The Lakes (Lakes 1, 2, 3 and 4)
- Most of the buildings on the Property except five buildings; Buildings 208/209, 302, 356, 363, and 456
- All active training areas except the Fort McPherson Range
- The majority of the areas on the Property, Parcel 24(1).

5.15 Description of Remaining Property

Parcel numbering was assigned to each existing Installation Restoration Program (IRP) site, non-IRP site, petroleum release areas and any identified area of concern as follows:

- ***Category 2 - Areas in which only release or disposal of petroleum products has occurred.*** Areas measuring approximately 33 acres were classified as category 2 property. Category 2 parcels included UST tank areas where there was evidence of contamination or no information was available regarding the status of the tanks.
- ***Category 3 - Areas in which release, disposal or migration of hazardous substances has occurred, but in concentrations that do not require a removal or other remedial response.*** There are no Category 3 parcels identified on the Fort McPherson property.

- **Category 4 - Areas in which release, disposal, or migration of hazardous substances has occurred, and all removal or remedial actions to protect human health and the environment have been taken.** One IRP Site, Old Incinerator Ash Dumpsite, measuring approximately 1 acre was identified as Category 4 property.
- **Category 5 - Areas in which release, disposal, or migration of hazardous substances has occurred, but all removal or other remedial actions necessary to protect human health and the environment have not yet been taken.** There are no Category 5 parcels identified on the Fort McPherson property.
- **Category 6 - Areas in which release, disposal, or migration of hazardous substances has occurred, but required remedial actions have not yet been implemented.** There are no Category 6 parcels identified on the Fort McPherson property.
- **Category 7 - Areas that have not been evaluated or require additional evaluation.** Areas measuring approximately 64 acres were classified as category 7 property. Category 7 property included the Building 363 Paint Shop (FTMP-01), Army Parking Lot (FTMP-11), former laundry/dry cleaning (Building 208/209) Dry Cleaning (Building 302), the pesticide storage areas (Buildings 356, 363, and 456), the Fort McPherson Range, the former Atlanta NG Rifle Range, the former Atlanta NG Target Range (including the former Skeet range), and the former Pistol Range.

Areas of the Property that contained other environmental or safety issues, including asbestos, lead-based paint, PCBs, radon, and radionuclides have also been identified in separate ECP Category 1 qualified parcels. Parcels with qualifying issues overlap ECP Category 1 through 7 parcels.

A summary of the parcels located at Fort McPherson is attached as Table A-1 (Appendix A). ECP Parcels and Qualified Parcels are shown on Figures 15 and 16, respectively.

5.16 Adjacent Properties

Property use and environmental conditions adjacent to Fort McPherson were evaluated by a VSI conducted on July 13, 2006.

Campbellton Road bounds Fort McPherson to the north and mainly consists of commercial and residential properties. Sawyer Alternator and Starter was located north of the property at 1397 Campbellton Road. The facility was listed on the LUST database and has received a No Further Action Letter. The properties located along Campbellton Road are assumed to be downgradient of Fort McPherson based on an evaluation of topography on the 1999 USGS Atlanta quadrangle topographic map, and none are considered to be of an environmental concern.

Single-family residential property bounds Fort McPherson to the south. Based on the Fulton County Tax Assessor online data this area was established in the 1940s. No environmental hazards were observed.

Lee Street bounds Fort McPherson to the east and largely consists of mixed commercial/industrial uses. Across Lee Street is the Metropolitan Atlanta Rapid Transit authority (MARTA) rail line. The properties to the east of Fort McPherson could pose an environmental hazard although no records of release have been documented. The properties do not appear to be of significant environmental concern to the subject property at this time.

Single-family residential property bounds Fort McPherson to the west. Based on the Fulton County Tax Assessor online data this area was established in the 1940s. No environmental hazards were observed.

6.0 Conclusions

In addition to all of the Ft. McPherson property, the ECP covers the Network Enterprise Technology Command located in Peachtree City, Georgia. No areas of environmental concerns associated with the Network Enterprise Technology Command were noted during the ECP process.

Installation Restoration Program. Fort McPherson has an ongoing IRP which was initiated in 1980. The IRP has identified 11 sites, designated FTMP-01 through FTMP-11. Seven sites have been closed out of the IRP program and include the following:

- FTMP-01, Bldg 363 Paint Shop
- FTMP-02, Bldg 41 - UST
- FTMP-03, Bldg 346 Waste Oil Tank
- FTMP-04, Bldg 346 OWS Separator
- FTMP-05, Bldg 370 OWS Separator
- FTMP-07, Bldg 357 DEH Maintenance
- FTMP-08, Bldg 370 Waste Oil Tank
- FTMP-11, Army Parking Lot.

Fort McPherson has an ongoing IRP for three sites including:

- FTMP- 06, Old Incinerator Ash Dumpsite
- FTMP-09, Building 143 PX Station
- FTMP-10, Vet Clinic/Old PX Gas Station.

The four IRP sites: Building 363 (FTMP-01), Building 143 PX Station (FTMP-09), the Vet Clinic (FTMP-10) and the Army Parking Lot (FTMP-11) are considered a REC.

Range Operations. There are six operational ranges at Fort McPherson. With the exception of the Fort McPherson Range, most of the identified training areas had no history of munitions use. Munitions are currently used at the Fort McPherson Range. In 1997 the Fort McPherson Range's impact area was redesigned to maintain environmental compliance. A structure was installed at the Range that directs drainage away from the impact area. Specially designed bricks are positioned in front of the structure to capture and retain bullets and bullet fragments. The bricks are replaced periodically as part of routine range maintenance. A potential lead contamination exists due to range activities prior to the reconstruction of the impact area. The Fort McPherson Range is considered a recognized environmental condition (REC).

Military Munitions Response Program. Four MMRP Sites were identified at Fort McPherson; Atlanta NG Rifle Range, Atlanta NG Target Range (including the former Skeet

Range), the Pistol Range and the 300-Yard Target Range. Munitions have historically been used at the former ranges. Two WWI artillery shells were uncovered in the Atlanta NG Target Range. The Atlanta NG Target Range is located on what is now the golf course in the lower southwest corner of Fort McPherson. Historical evidence suggests that the Atlanta NG Target Range was not used as an artillery range. Installation personnel suspected that contaminated fill was used during the construction of the golf course. A potential lead contamination exist for the former Atlanta NG Rifle Range, the former Atlanta NG Target Range that includes the former Skeet Range, and the former Pistol Range. The three ranges are considered a REC.

The area where the former 300-Yard Target Range existed has been extensively redeveloped into a recreation area with pavement covering a portion of the range. The former 300-Yard Target Range is not considered a REC.

Hazardous Substances and Hazardous Waste. Several hazardous substances associated with base operations at Fort McPherson include used solvents, paints, acids and bases, toxins, aerosols, heavy metals, mercury-containing items, and other materials associated with laboratory operations, building and vehicle maintenance. Identified hazardous substances include arsenic, asbestos, chlorine, lead, nickel hydroxide, mercury, urea, and xylene. Fort McPherson tracks and maintains its hazardous materials and chemical inventory data through the HMMS. This data is collected on hazardous materials and hazardous waste from all agencies that handle these substances at Fort McPherson for input to the HMMS.

Currently, hazardous material disposal is reported by various departments and tenants for input into the HMMS system as materials are received and disposed. This information is used to facilitate centralized hazardous material control and management and to assist with environmental reporting. Hazardous chemicals store in quantities greater than the storage quantity threshold include urea.

Hazardous waste is stored at Fort McPherson in a 90-day yard and various SAP. Under the State of Georgia regulations, SAP cannot accumulate more than 55-gallons at a time and once the amount is exceeded, the excess waste must be moved within 3 days to a 90-day area. After 90 days, the waste must be transported off Property by licensed hazardous waste transporters. The hazardous substances and hazardous waste storage areas are not considered to be a REC.

Petroleum Substances-USTs/ASTs. Fort McPherson currently has nine active USTs and five active ASTs, the remaining tanks have either been removed or closed in place. The tanks were primarily used for the storage of fuel oil, gasoline, diesel, and waste oil.

A summary of the available documentation for historic and current tanks at Fort McPherson is as follows:

- During tank removal activities, the tank associated with Building 183 had no evidence of soil contamination.
- During tank removal activities, soil contamination was detected at Building 205 (one [1] tank) and during removal of only one of the tanks at each of Buildings 346 (346-W01) and 370 (370-W01). Contaminated soil was over-excavated. These former UST locations do not constitute a REC.
- During tank removal at Buildings 160 (six [6] tanks) and 164 (one [1] tank), not all contaminated soil could be removed due to the presence of utility lines. Because of residual soil contamination, one monitoring well was installed at each of the two UST sites to confirm or deny the presence of groundwater contamination. Groundwater analytical results were not available for review during the generation of the ECP. The two sites are considered a REC.
- Although one tank at each of Buildings 208 and 302 were reported to have been closed, there was no additional information regarding site conditions during closure activities. The two sites are considered a REC.
- There was no available information regarding the status of the tanks at nine of the UST locations. Buildings 40 (one [1] tank), 104 (one [1] tank), 106 (one [1] tank), 207 (one [1] tank), 214 (two [2] tanks), 302 (two [2] tanks), 326 (one [1] tank), 345/346 (four [4] tanks), and 650 (one [1] tank). These ten UST locations currently constitute a REC.
- Three of the UST sites are managed under the IRP program. These locations include Buildings 105 (two [2] tanks), 143 (five [5] tanks), and 370 (one [1] tank). The UST at Building 370 was removed and contaminated soil was over-excavated. Remedial activities are currently on-going for the USTs at Buildings 105 and 143. Buildings 105 and 143 are currently considered a REC.
- There are currently 9 active USTs at five of the sites. These sites include Buildings 160 (two [2] tanks), 200 (one [1] tank), 350 (two [2] tanks), 368 (three [3] tanks), and 651 (one [1] tank). Except for the tank at Building 200, all the tanks were installed in the 1990s and have shown no evidence of release of petroleum products.

- There were no documented releases for any of the ASTs at Fort McPherson. Visual site inspections of the current ASTs did not reveal any evidence of leaks or spills.
- Documentation of No Further Action concurrence by the GA EPD exists for five of the UST sites. These sites include Buildings 41 (one [1] tank), 200 (one [1] tank), 350 (three [3] tanks), 454 (one [1] tank), and 651 (one [1] tank) and one location where there was a misidentified presence of a UST (Building 101).
- Tanks used for storing heating oil or petroleum products were not regulated prior to 1988. Tanks used for storing heating oil for consumptive use of the premises where stored are excluded from Federal and GA EPD rules regardless of when the tank was installed or removed, including existing heating oil tanks. Although heating oil tanks are not regulated, releases of contaminants into the environment by these tanks are regulated.

Cleanup was conducted at seven of the UST sites (Buildings 105, 143, 200, 302, 350, 454, and 651) at Fort McPherson that are listed in the GA EPD LUST database. The USTs at Buildings 200, 350, 454 and 651 have been granted by the State a ‘no further action’ status. Buildings 105 and 143 are listed as in remediation. The UST at Building 302 was closed and no further information was available regarding site conditions during closure activities.

Asbestos Containing Materials. From 1994 to 2002, ACM surveys were conducted in 27 structures. Of the 27 structures surveyed, 26 have ACM survey results documentation; 18 were found to have both friable and non-friable asbestos; and 8 were found to have only non-friable asbestos. All structures with reported asbestos (with the exception of Buildings 46, 184 and 352) have an asbestos operation and maintenance plan in place. There are 226 buildings on the Fort McPherson property that have no documentation of asbestos surveys performed.

Lead-Based Paint Surface dust sampling surveys have been conducted for 102 residential units at Fort McPherson. Of the 102 units tested, 34 had at least one sample that exceeded the EPA limits for a lead-dust hazard. It appears that there were no follow up surveys by the facility. No documentation of lead dust sampling was found for nine family housing buildings (Buildings 20, 22, 27, 28, 168, 475, 476, 512, and 525) constructed prior to 1978.

Most facilities and buildings at Fort McPherson were constructed before the DoD ban on the use of lead-based paint in 1978 and are likely to contain one or more coats of such paint. In addition, some facilities constructed immediately after the ban may also contain lead-based paint, because inventories of such paints that were in the supply network were likely to have been used up at these facilities.

Radiological Materials. As reported by in the 2007 Historical Site Assessment, three (3) buildings at the Property were found to be potentially impacted from historical use of RAM. The buildings and survey areas that were found to be potentially impacted included building Nos. 179, 180, and 363.

Historical Landfills/Dumps. Several disposal pits and burial activities were identified in the aerial photographs reviewed. In a 1944 aerial photograph, mounded material was visible in the northwest portion of the installation. Debris and mounded material were visible in the southeast portion of the installation in the 1968 and 1978 aerial photographs reviewed. No further information was available regarding the burial activities and disposal pits. The Old Incinerator Ash Dump Site (FTMP-06) is located near the center of Fort McPherson. The area was used for burning trash in open pits and for disposal of solid waste incineration ash. Until the late 1960s, combustible solid wastes were burned daily in open, unlined pits excavated in the area. Burn residue was left in the pits; when a pit became full, it was covered with dirt. Waste materials burned in these pits reportedly included domestic garbage, hospital waste, minor industrial waste, (i.e. waste paints, solvents, oils, etc.) and construction and demolition debris.

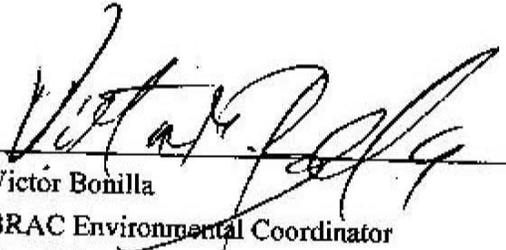
Pesticides. Building 341 is currently the location of the pesticide storage and mixing facility; however, pesticide storage and mixing has occurred at a number of locations on Fort McPherson. From review of USAEHA pest management reviews (various dates), records indicate that historic pesticide storage and mixing occurred at the following sites: Building 343, Building 363, Building 356, and Building 456. USAEHA pest management reviews and Army environmental compliance assessments that have been conducted starting in the 1970s have indicated that pesticide storage and mixing operations were inadequate at Buildings 341, 356, and 456. Building 341 was upgraded in 2002 to bring the facility in compliance. Buildings 356, 363, and 456 are currently considered a REC.

Other Issues. Fort McPherson is listed in the RCRA-SQG database. There are 19 records of violations reported for Fort McPherson but all have achieved compliance.

Dry cleaning activities involving chlorinated solvents were conducted in Buildings 208/209 and 302. The buildings were demolished between 1988 and 1990. The previous dry cleaning sites are considered a REC.

7.0 Certification

All information/documentation provided accurately reflects the condition of the property. This report meets the DoD requirements for completion of an ECP Report.



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APPENDIX A

ECP PARCELS AND 2006 VISUAL SITE INSPECTION APPROACH SUMMARY

APPENDIX B

AERIAL PHOTOGRAPHY ANALYSIS

APPENDIX C

SANBORN MAPS

SANBORN MAPS WERE NOT AVAILABLE FOR FORT MCPHERSON

APPENDIX D

HISTORICAL TOPOGRAPHIC MAPS

APPENDIX E

REGULATORY DATABASE REPORT (EDR REPORT)

APPENDIX F

JURISDICTION SUMMARY

APPENDIX G

INTERVIEW REPORTS

APPENDIX H

ASBESTOS SURVEY DATABASE

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ADDENDUM 1

HISTORICAL SITE ASSESMENT AND ADDENDUM TO ENVIRONMENTAL CONDITION OF PROPERTY REPORT

**HISTORICAL SITE ASSESSMENT WILL BE DIRECTLY PROVIDED TO
THE CLIENT BY CABRERA SERVICES**