Final

U.S. Army Base Realignment and Closure Environmental Condition of Property Report Parcels 4B, 5A, 5B, 8, 10A, 10B, 12, 14 and 25

Fort Wingate Depot Activity
McKinley County, New Mexico

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Prepared For:
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List of Acronyms

ACM	Asbestos-containing material
AOC	Area of Concern
AR	Army Regulation
AST	Aboveground storage tank
ASTM	American Society for Testing and Materials
BGS	Below ground surface
BNSF	Burlington Northern Santa Fe
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DoD	Department of Defense
ECP	Environmental Condition of Property
EDR	Environmental Data Resources, Inc.
EPA	Environmental Protection Agency
FWDA	Fort Wingate Deport Activity
IRP	Installation Restoration Program
LUST	Leaking underground storage tank
MEC	Munitions and Explosives of Concern
NFA	No Further Action
NMDGF	New Mexico Department of Game and Fish
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OESS	Ordnance and Explosives Safety Specialist
PCB	Polychlorinated Biphenyl
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RFI	RCRA Facility Investigation
ROW	Right-of-way
SHPO	State Historic Preservation Officer
SVOCs	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Unit
TEAD	Tooele Army Depot
USACE	United States Army Corps of Engineers
USDI	United States Department of the Interior
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground storage tank
VOCs	Volatile Organic Compounds
VSI	Visual site inspection
WSMR	White Sands Missile Range
WWI	World War I
WWII	World War II

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."
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).
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.
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.
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 and Explosives of Concern (MEC)	This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks, means: (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.
Military Munitions	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. 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)).
Realignment	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.”
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 to document the environmental conditions and provide information for the transfer of nine parcels at Fort Wingate Depot Activity (FWDA), McKinley County, New Mexico. The Army prepares an ECP in order to provide the public with information relative to the environmental condition of the property, assist in community planning for the reuse of Base Realignment and Closure (BRAC) property, assist Federal agencies during the property screening process, provide information to prospective buyers, provide information about completed remedial and corrective actions at the property, and to assist in determining appropriate responsibilities, asset valuation, and liabilities with other parties to a transaction.

FWDA currently occupies 15,270 acres of land. This ECP report covers 2,496 acres of land located within FWDA, consisting of nine parcels (Parcels 4B, 5A, 5B, 8, 10A, 10B, 12, 14, and 25). The subject properties are located in northwestern New Mexico, in McKinley County, approximately 8 miles east of Gallup, NM on US Route 66. The subject properties are arrayed along the northern and western perimeter of FWDA.

The 2017 Nation Defense Authorization Act, signed 23 December 2016, directed the Army to transfer property that had been removed from regulation under the Resources Conservation and Recovery Act Permit to the Department of Interior within a specified timeframe. The transfer date was negotiated to occur on 31 July 2017. The ECP could not be completed prior to this accelerated transfer date and an exception to policy was granted, allowing the transfer to occur without the ECP finalized, as long as the ECP was finalized before 31 October 2017.

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 nine subject parcels. The findings included in the report are based on a record search of historical environmental investigation reports and site historical documents, a review of aerial photography, stakeholder interviews, and a site reconnaissance conducted August 10, 2017.

The information gathered during the development of the ECP was then used to group each of the nine subject parcels into standardized categories using DoD guidance, based on the environmental conditions found at each of the parcels. Based on the ECP analysis, the nine parcels can be categorized as follows:

Parcel Number	Acreage	ECP Category	Reasoning
4B, 5B, 8, 10A, 12, and 14	1791.85 ac	1	No release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.
5A, 10B, and 25	703.81 ac.	3	Various assessments have indicated the release of hazardous substances on these parcels, although at levels below regulatory screening levels. Army proposals for no further action on these parcels were approved by the State of New Mexico. As a result, no further investigation or remediation is required.

As a result of these categorizations, this report finds all nine of the subject parcels to be suitable for transfer and/or disposal.

2.0 Purpose

2.1 General

This environmental condition of property (ECP) report has been prepared to document the environmental conditions and provide information for the transfer of nine parcels at Fort Wingate Depot Activity (FWDA), McKinley County, New Mexico. This report meets the requirements of Title 40, Code of Federal Regulations (CFR), Part 373, and United States (US) Army Regulation (AR) 200-1 (2007), *Environmental Quality, Environmental Protection and Enhancement*. The ECP report assesses the components identified in the Department of Defense (DoD) *Base Redevelopment and Realignment Manual* (BRRM), dated 1 March 2006, 4165.66-M, Sections C.8.3 and AP2. This report also closely parallels the American Society for Testing and Materials (ASTM) E1527-13 *Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process*. The nine subject parcels in this report are subsequently categorized according to ASTM D5746 (2016) *Standard Classification of Environmental Condition of Property Area Types for Defense Base Closure and Realignment Facilities*.

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 Base Realignment and Closure (BRAC) property.
- Assist Federal agencies during the property screening process.
- Provide information to 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 contains the information required to comply with the provisions of 40 CFR, Part 373 that require a notice to accompany contracts for the sale of, and deeds entered into the transfer of, federal property on which hazardous substances may have been stored, released or disposed. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §120(h) stipulates that a notice is required if certain quantities of designated hazardous substances have been stored on the property.

The ECP Report is not prepared to satisfy a real property purchaser's duty to conduct an "all-appropriate inquiry" to establish an "innocent purchaser defense" to CERCLA 107 liability. Any such use of the ECP Report by any party is outside the control of the Army and beyond the scope of the ECP Report. The Army, its officers, employees or contractors makes no warranties or representations that any ECP Report satisfies any such requirements for any party.

2.2 Scope

FWDA currently occupies 15,270 acres of land. This ECP report covers 2,496 acres of land located within FWDA. This sub-area consists of nine parcels (Parcels 4B, 5A, 5B, 8, 10A, 10B, 12, 14, and 25), and will be referred to as "the property". Areas within FWDA that are not within these 9 parcels will be considered adjacent property. The subject properties are located in northwestern New Mexico, in McKinley County, approximately 8 miles east of Gallup, NM on US Route 66. The subject properties are arrayed along the northern and western perimeter of FWDA. A general site location map is provided in Figure 1. Figure 2 presents the FWDA, along with the nine subject parcels.

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

August 10, 2017. Historical environmental investigation reports and site historical documents were reviewed in support of this ECP, and the information obtained from other studies is reflected within this report by reference. The ECP process recognizes that the condition of property and classification can change as historical contamination is cleaned up (if required) or if a new source of contamination is identified. Records reviewed during the Phase I assessment were accepted as accurate and a reasonable effort was made to resolve discrepancies identified during the document review.

During the ECP Phase I assessment, all available sources of information concerning both past and present environmentally significant uses of the property were reviewed. This included readily available data associated with adjacent property records; 1935, 1948, 1952, 1958, 1959, 1962, 1966, 1973, 1978, 1985, 1991, 1993, 1997, and 2005 aerial photography; personnel interviews; Army environmental programs and associated documentation; current and historic investigations; and ongoing response actions. In addition, record sources were reviewed to determine if there have been spills, leaks, discharges, leaching, underground injection, dumping, abandonment, or storage of hazardous substances or petroleum products at the installation. The site reconnaissance and interview process included inquiries and requests into the existence and availability of records that support the environmental condition of the property. The site reconnaissance included a driving tour of the entire facility and the perimeter of the nine subject parcels. Due to the limited amount of vegetation present, each of the parcels could be inspected from the patrol road, and a visual survey of the parcels on foot was not needed. No sampling or analysis was conducted during this survey.

2.4 Report Organization

The remainder of this ECP report is organized as follows:

Section 3 – Property Description: This section provides location and description of each of the 9 parcels; an overview of historical and current land uses; a description of the environmental setting of each of the 9 parcels, including climate, topography, geology, and demography; and a biological and cultural resources summary including historic, archaeological, and related consultations.

Section 4 – Survey Methodology: This section describes the methods used to obtain the information for this ECP Report such as the development of study sections, the Visual Site Inspection (VSI), aerial photography analysis, records review, interviews, and data management.

Section 5 – Environmental Conditions: This section provides the existing environmental information. The findings are organized by relevant environmental "issues," including permits and licenses, cleanup activities, hazardous substances, petroleum and related products, asbestos, lead-based paint (LBP), radioactive materials, landfills, explosive contaminated structures, radon, pesticides, and polychlorinated biphenyls (PCBs). This section also includes adjacent property descriptions.

Section 6 – Evaluation and Conclusions: This section provides a summary of the nine parcel ECP and evaluates each parcel for categorization as per ASTM D5746 (2016).

Section 7 – Certification: This section documents the approval of the ECP report.

Section 8 – References: This section provides an inventory of the reference material used in the preparation of this ECP Report.

Appendices: A list of appendices is provided in the Table of Contents.

3.0 Property Description

3.1 Parcel Locations and Description

FWDA currently occupies 15,270 acres of land, and is located in northwestern New Mexico, in McKinley County, approximately 8 miles east of Gallup, NM on US Route 66. FWDA is a former ammunition depot under the command of the United States Army. This ECP report covers 2,496 acres of land located within FWDA, consisting of nine parcels (Parcels 4B, 5A, 5B, 8, 10A, 10B, 12, 14, and 25). The subject properties are arrayed along the northern and western perimeter of FWDA, and are bordered by federally managed lands to the west and north, and by the rest of the FWDA installation to the south and east. The 9 parcels range in elevation from 6,300 to 7,200 feet above sea level. Each of the 9 parcels have a variety of improvements, listed below in Table 1. A map showing each of the 9 parcels is shown at Figure 2. The subject parcels were transferred to the USDI on August 4, 2017.

Table 1: Parcels, Acreage, and Improvements

Parcel Number	Acreage	Improvements
4B	168.06 ac.	- Security fence around portion of the perimeter
5A	159.33 ac.	- Perimeter patrol road along west boundary - Security fence around portion of the perimeter - Overgrown dirt road in interior of parcel, used for archeological site access
5B	70.24 ac.	- Security fence around portion of the perimeter
8	432.29 ac.	- Security fence around portion of the perimeter
10A	482.85 ac.	- Security fence around portion of the perimeter - Elevated telephone and electrical lines - Unpaved dirt road used for access to elevated lines
10B	111.89 ac.	- Security fence around portion of the perimeter - Railroad spur
12	159.71 ac.	- Building 18, main gate security building - Depot entry road and bridge over the river - Security fence around portion of the perimeter and along entry road
14	478.70 ac.	- Security fence around portion of the perimeter
25	432.59 ac.	- Three Burlington Northern Santa Fe (BNSF) railroad tracks - Approx. 500’ x 200’ fenced compound on eastern portion or parcel o Aboveground storage tank (AST) associated with the railroad right-of-way (ROW) o Small Western Gas Processors, Ltd. building o Small railroad siding - U.S. Highway 66 - Interstate 40

3.2 Historic Land Use

The FWDA installation was originally established by the U.S. Army in 1862 at the southern edge of the Navajo territory. In 1918, the mission of the FWDA changed from tribal issues to World War I-related activities. Beginning in 1940, the FWDA’s mission was primarily to receive, store, maintain, and ship

explosives and military munitions, as well as to disassemble and dispose of unserviceable or obsolete explosives and military munitions. In 1975, the installation came under the administrative command of Tooele Army Depot (TEAD), located near Salt Lake City, Utah.

In January 1993, the active mission of the FWDA was ceased and the installation closed as a result of the Defense Base Realignment and Closure Act of 1990 (BRAC). Beginning in 2002, the U.S. Army reassigned many FWDA functions to the BRAC Division, including caretaker duties, property transfer, and performance of environmental compliance and restoration activities. Command and control responsibilities were retained by TEAD until January 31, 2008, when these responsibilities were transferred to White Sands Missile Range (WSMR).

As mentioned above, FWDA historically stored and serviced explosives and military munitions beginning in 1919. Parcels 4B, 5B, 8, 10A, 12, and 14 served as ordnance buffer zones, separating areas off-post from the rest of the facility. Parcel 10A also featured a 20' x 50' World War I (WWI) era ammunition storage building, located adjacent to parcel 24, which was demolished before World War II (WWII). There is also limited evidence that a sand and gravel crushing facility may have been located at the southern end of parcel 10A, located adjacent to an area where strip mining may have occurred.

Besides ordnance buffers, parcels 12 and 14 served other purposes as well. Parcel 12 is located at the entry to the FWDA facility, so a small guard shack (Building 18) was constructed at that location. Portions of parcel 14 were used to mine gravel for the construction of the adjacent Interstate 40. A subset of parcel 14 also was leased to the New Mexico National Guard from 1972 to 1990 for tank training exercises. No tank firing exercises occurred during this training.

Parcel 5A was lightly used over its history, and contained two former ammunition storage buildings that were subsequently demolished. From 1919 to 1939, parcel 10B contained the original administration and utilities buildings. These buildings included the post headquarters, stables, barracks, a blacksmith shop, and other support structures. The area also contained two dirt airstrips arrayed in an "X" figure. The airfield was abandoned and buildings demolished sometime between 1935 and 1948. Parcel 10B also contained a large berm adjacent the existing railroad spur that was suspected to be a petroleum, oil, and lubrication disposal area. However, drawings from FWDA records show that the berm was used as an explosive barrier as a safety measure to isolate rail cars in case their loads may have shifted during transport.

Parcel 25 contains a railroad ROW that was acquired by the railroad in 1866 by an Act of Congress, shortly after FWDA's establishment in 1862. The Interstate 40 ROW was established through the parcel during the highway's construction in the middle of the 20th century, and the parcel has been used as a rail supply storage area. At some point in the last 40 years, an AST was constructed and used for sulfuric acid storage, although the tank was not being used as of 1989. Subsequently to 1989, the tank has been used again for the storage of de-icing compounds (see Sec. 3.3).

3.3 Current Land Use

FWDA contains facilities formerly used to operate a reserve storage activity providing for the care, preservation, and minor maintenance of assigned commodities, primarily conventional military munitions. Prior to closure, the installation mission included the disassembly and demilitarization of unserviceable and obsolete military munitions. Ammunition maintenance facilities existed for the clipping, linking, and repackaging of small arms ammunition.

Currently, most of the parcels in FWDA are undergoing environmental restoration or evaluation for eventual turnover. Approximately 6,460 acres of FWDA (parcels 2, 9, 19, and 20) are also leased to the Missile Defense Agency, a DoD agency, for target rocket launch in conjunction with WSMR. These areas are not included in this ECP.

The subject parcels 4B, 5A, 5B, 8, 10A, 10B, and 14 have no current use. Parcel 12 contains Building 18, which was the former secure entry point for the facility. Parcel 25 is leased indefinitely to the BNSF Railway and State of New Mexico as rights-of-way for the railway, US Highway 66, and Interstate 40. The western portion of parcel 25 is adjoining to, and north of, Parcel 10A. This western portion of parcel 25 splits into two narrow strips following the railway and highways where they separate near the town of Church Rock. The eastern portion of parcel 25 includes a fenced compound, north of the BNSF Railway tracks, containing a rail siding, an AST, and a small building. This compound, approximately 200 feet by 500 feet in size, is being operated by Western Gas Processors, Ltd, for storage and distribution of road deicing compounds.

3.4 Easements

As of July 17, 2017, there were 14 active easements across the FWDA facility. Eight of these easements pass through the nine subject parcels. The table below lists these easements, along with associated parcel number, and other information.

Table 2: Easement on Subject Parcels

Outgrant #	Parcel Number	Grantee	Description
091-RE-G-77	25	Atchison, Topeka and Santa Fe Railway - Amarillo	Perpetual easement for construction of railroad and telegraph line
091-RE-G-79	25	State of New Mexico	Perpetual easement for construction and maintenance of road (I40)
DACA63-2-17-0525	10A, 10B, 12, 14	Tri-State Generation and Transmission Association Inc.	Easement for power lines
DACA63-2-17-0527	10A, 10B, 12, 14, 25	City of Gallup	Easement for ROW for operation and maintenance of 13.8KV electrical transmission line
DA-29-005-ENG-3657	10A, 10B, 12, 14	State of New Mexico	Perpetual easement for ROW for controlled access highway
DA-29-005-ENG-4661	10A	State of New Mexico	Perpetual easement for ROW for controlled access highway
DACA63-2-17-0526	10A, 10B, 12, 14, 25	City of Gallup	Easement for construction, operation, and maintenance of 13.8KV electrical transmission line
DACA47-2-88-126	25	State of New Mexico	Perpetual easement for an exit ramp off I40

3.5 Utilities

The main FWDA facility historically featured a water conveyance system, including two cisterns and associated piping, as well as natural gas lines and a sewage treatment plant. The natural gas service line entered the facility along the entry point in parcel 12, and Building 18 featured a water fountain and wastewater line. As of 2006, utility service of any kind was provided to only six buildings on the facility, all located within the main administration area on parcel 11. By 2015, none of the original utilities were in use anywhere on the FWDA facility.

No utilities of any kind exist on parcels 4B, 5A, 5B, 8, 10A, 10B, and 14, other than the power line easements that cross the property. No utilities were initially located on parcel 25 as of the time of the

BNSF lease. However, a septic system and/or associated utilities may have been installed by Western Gas Processors, Ltd. in conjunction with their storage and distribution facility.

Historic Army well records indicate that several wells were installed at various locations across the facility to provide potable water to the users of FWDA. Wells 68 and 69 were the two main wells located adjacent to the firehouse in the administration area, and at least three wells (WINGATE 89, 90, and 91) were located in the northern portion of parcel 10B adjacent to the I40 ROW. WINGATE 89, 90, and 91 were originally installed to provide water during the construction of the interstate, but was used briefly to aid in the investigation of impacts to groundwater from the TNT leaching beds located in parcel 21. All wells with the exception of Well 69 have been plugged, and Well 69, located on parcel 11, currently provides non-potable water to the Missile Defense Agency on an as needed basis.

3.6 Environmental Setting

3.6.1 Climate

The regional climate is semiarid, characterized by spring and fall droughts. Summer precipitation accounts for approximately 60 percent of the annual precipitation (11 inches per year). Winter precipitation is highly variable. Average temperatures range from a mean high of 64° F to a mean low of 36° F, with an average diurnal variation of 30° F. Extremes range from over 100° F to 0° F. Approximately 151 days are frost-free. Wind direction is generally from the southwest, averaging 9.6 miles per hour, except during the spring when the average is 12 miles per hour.

3.6.2 Topography and Surface Water Hydrology

FWDA is bounded on the west by the Hogback, a ridge of steeply dipping sedimentary rocks; on the south by the Zuni Mountains; on the east by a small valley terminating at the base of the Zuni Mountains; and on the north by the south fork Puerco River. Elevations range from 6,700 feet at the northern boundary to 8,200 feet at the southern boundary. Slopes on the subject parcels typically range from 1 to 6%, but can reach as high as 50 to 70% on portions of parcels 4B and 8.

The principal drainage in the region is the Puerco River, an ephemeral, east-west flowing stream, located immediately north of the installation boundary. Two tributaries of the South Fork Puerco River, Milk Ranch Canyon and Fenced-Up Horse Canyon, enter the subject parcels in multiple locations, flowing only during the heaviest rain events. The southeastern corner of the installation is drained to the east by several small parallel washes feeding into Milk Ranch Canyon. The east-central portion of FWDA which includes most of the magazine area, drains to the northeast into the lower reaches of Milk Ranch Canyon before emptying into the South Fork of the Puerco River. The western portion of the installation is drained by a network of washes into Fenced-Up Horse Canyon, which flows north into the South Fork of the Puerco River. A Federal Emergency Management Agency (FEMA) flood plain map of the main FWDA administration area is shown in Figure 3.

3.6.3 Geology

Three principal geologic formations ranging in age from Permian to Cretaceous are exposed within FWDA and its vicinity. These are the Glorieta sandstone/San Andres limestone, the Chinle claystone, and the surface alluvium of the Puerco River valley. The subsurface strata along southwestern and western boundaries of FWDA contain a complete stratigraphic column, with exposed Cretaceous rocks overlying Jurassic, Triassic, and Permian rocks. Near the administration area to the north, the Cretaceous beds are absent and strata of Triassic age or older are present. In the southeastern corner of FWDA, Cretaceous, Jurassic, and Triassic formations are absent and Permian beds overlie Precambrian rock. Permeable sand and sandy loam clays compose the major soil types. Soil thicknesses vary from 12 inches over most of the installation to 150 feet (alluvial accumulations) along canyon floors and in the Puerco River valley. FWDA soils are highly erodible, exhibit low fertility, and contain from 15 to 35 percent rock inclusions.

3.6.4 Hydrogeology

The regional groundwater aquifer in the vicinity of FWDA is present in the Permian San Andres Limestone and Glorieta Sandstone Formations. Shallow groundwater is also present in the unconsolidated alluvium and Mesozoic-age bedrock overlying these units but is typically of poor quality. Groundwater flow in the San Andres-Glorieta aquifer is to the north beneath FWDA and is separated from the shallow groundwater units by shales and claystones across much of the facility. The top of the San Andres-Glorieta aquifer is approximately 1,100 feet below ground surface (bgs) near the Administration Area. Recharge to both the regional aquifer and to shallow groundwater units is from precipitation and snowmelt primarily in the upland areas and along faults south of FWDA.

The groundwater flow direction in the alluvium present in the northern portion of FWDA in the subject parcels is predominantly to the southwest and west. Along the northern border of the installation, hydraulic communication exists between the groundwater and the Puerco River during periods of active stream flow. Groundwater flow in the alluvium occurs primarily in discontinuous, stream-deposited sand and gravel units. Groundwater flow in the bedrock units in the northern portion of FWDA is to the west and north. The direction of groundwater flow in the bedrock units is largely controlled by geologic structural features. The depth to water under FWDA is generally between 10 and 100 feet bgs. Groundwater is present at shallow depths in the alluvium along drainages, including the Puerco River, with depth to water ranging from 13 to 68 feet bgs in northern area alluvial wells. Groundwater in the northern area bedrock aquifer wells is also shallow with depth to water ranging from 28 to 65 feet bgs.

The region around Gallup, including FWDA was declared an underground water basin in 1980s by the State of New Mexico. This action prohibits any major new groundwater withdrawals without approval of the State Engineer.

One water supply well currently exists at FWDA, although it is no longer used for potable water. Well No. 69, located adjacent to Building 34 on parcel 11 was constructed in 1970. The total depth of the well is 1,337 feet below ground surface bgs) and the screened interval is from 1,087 to 1,337 feet bgs. Well No. 69 is completed in the San Andres-Glorieta aquifer.

3.6.5 Demographics and Surrounding Land Use

The 1980 population of McKinley County and Gallup was 56,449 and 18,161, respectively, which is an increase of 30.6 and 24.4 percent, respectively since 1970. The 2010 census had the county population at 71,492. In 2010, the population of McKinley County was comprised of 75.5% Native Americans, primarily from the Navajo and Zuni tribes, compared with 9.4 % for the state.

During the past 30 years, the traditional economic base of the county has shifted from agriculture, mining, and construction to government, retail and wholesale trade, and services. The total 1988 civilian work force in McKinley County was 17,662. Total employment that year was 15,507 persons with an unemployment level of 12.2%, or 2,155 persons. For the past several years, employment and personal income have steadily risen. However, some sectors--particularly mining, energy development, and construction, have declined. As a result, the county unemployment rate rose from 5.4 % in 1978 to a high of 15.5 % in 1983. Since then the unemployment rate has steadily declined. As of 1991, FWDA employment represented 0.5 % of the county workforce.

The FWDA is almost entirely surrounded by federally owned or administered lands, including both national forest and tribal lands. To the west of parcels 4B, 5B, 8, and 10A is a sparsely-developed, rural residential area. Housing density increases somewhat to the north, in the area west of parcel 10A. The small town of Rehoboth (population 56) is located farther to the west, near the Interstate 40 corridor.

North of parcel 10A is the western portion of parcel 25, which splits into two narrow strips where the BNSF railway separates from Interstate 40 and US Highway 66. Several businesses, including the Fire Rock Navajo Casino, are located beyond the highways in a corridor between the highways and the

railroad. Tracts of undeveloped rangeland separate these businesses and comprise the majority of this area. Farther west, beyond the casino, are the ConocoPhillips Company - Wingate Fractionating Plant and El Paso Natural Gas Gallup Area Office.

The area immediately north of parcel 25 is a sparsely-populated, rural residential area. Farther to the north, in the vicinity of State Highway 566, housing density increases. The small town of Church Rock (population 1077) and Red Rocks State Park are located in this area. The area north of parcel 25, east of Church Rock, and the area east of parcel 25 are primarily undeveloped rangeland with widely scattered residences.

3.7 Biological and Cultural Resources

3.7.1 Terrestrial Ecosystems

Three major biotic communities found within McKinley County also occur at FWDA: Rocky Mountain (Petran) and Madrean Montane Conifer Forests; the Great Basin Conifer Woodland; and the Great Basin Desertscrub. The varied soil types and elevational differences within FWDA allow for considerable plant and animal species diversity. More than 100 plant and over 200 animal species are likely to occur.

Common floral species include Douglas and white fir; limber, ponderosa, and piñon pines; one-seeded, Rocky Mountain, and alligator junipers; quaking aspen; Gambel oak; locust; big, bigelow, and sand sagebrushes; cliffrose; Apache plume; Mormon tea; barberry; skunkbush; four-wing saltbush; penstemons; globemallows; composites; chenopods; grasses (muhlies, bromes, fescues); and various introduced species, such as Russian thistle, tumble mustard, filaree, and cheatgrass brome.

Common faunal species include mule deer; fox; coyote; cottontail; black-tailed jackrabbit; tassel-eared squirrel; chipmunk; porcupine; dwarf, vagrant, and Merriam shrews; spotted, golden-mantled, and thirteen-lined ground squirrel; kangaroo rat; vole; piñon mouse; bushy-tailed woodrat; sparrow; piñon and Stellar jay; warbler; oriole; owl; broad-tailed hummingbird; pygmy nuthatch; western flycatcher; woodpecker; Gambel's quail; plateau whiptail; wandering garter snake; and prairie rattlesnake.

3.7.2 Aquatic Ecosystems and Wetlands

Aquatic habitat at FWDA formerly occurred at Lake Knudsen, Lake McFerren, and at a small sewage treatment evaporation pond. Lake Knudsen was a shallow, often dry, 20-acre intermittent playa lake, located in the east-central portion of FWDA on parcel 13. The lake was created for recreational purposes, and was fed by intermittent flows from a small arroyo to the southeast, and from overflow from two large (100K/250K Gal.) water tanks located on a bluff about 1000 feet to the northwest of the lake. The water towers was demolished in 2012, and flows to Lake Knudsen effectively ended except for temporary seasonal drainage. Lake McFerren was located in the southeastern corner of the facility on parcel 1, which has been transferred to the Bureau of Indian Affairs. Both supported a variety of plant life, including algae, elodea, sedges, bulrushes, and cattails. Game fish (blue catfish, channel catfish, and rainbow trout) were stocked in the impoundments on a put-and-take basis at one point, but this activity ended in the early 1990's. The impoundments were not suitable for reproductive fish populations because of the lack of permanent aquatic habitat. The main ephemeral drainages currently are the south fork of the Puerco River and its tributaries, Milk Ranch canyon, and Fenced-Up Horse canyon. No fish inhabit the upper reaches of the Puerco River or the drainages within FWDA due to ephemeral flow and water quality degradation caused by heavy sediment load.

3.7.3 Threatened and Endangered Species

Several Federal or state listed threatened or endangered species have the potential to occur within FWDA, listed below. Note that species that are candidate, or proposed, for listing are not included.

Table 3: Threatened and Endangered Species at FWDA

Common Name	Scientific Name	Managing Agency	Status	Final Critical Habitat Designated in FWDA?
Mexican Spotted Owl	Strix occidentalis lucida	USFWS	Threatened	No
Southwestern Willow Flycatcher	Empidonax traillii extimus	USFWS	Endangered	No
Yellow-billed Cuckoo	Coccyzus americanus	USFWS	Threatened	N/A
Zuni Bluehead Sucker	Catostomus discobolus yarrowi	USFWS	Endangered	No
Zuni Fleabane	Erigeron rhizomatus	USFWS	Threatened	N/A
Least Tern	Sternula antillarum	USFWS	Endangered	N/A
Canada Lynx	Lynx Canadensis	USFWS	Threatened	Yes
Bald Eagle	Haliaeetus leucocephalus	NMDGF	Threatened	N/A
Peregrine Falcon	Falco peregrinus	NMDGF	Threatened	N/A
Arctic Peregrine Falcon	Falco peregrinus tundrius	NMDGF	Threatened	N/A
Costa's Hummingbird	Calypte costae	NMDGF	Threatened	N/A
Gray Vireo	Vireo vicinior	NMDGF	Threatened	N/A

The federal Migratory Bird Treaty Act of 1918 also provides protection to certain species of migratory birds. A total of 31 bird species are currently protected under this federal statute.

3.7.4 Cultural Resources

To meet the Army's obligations under a variety of cultural resources laws, including the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, Executive Order 13007 (1996), and the Presidential Memorandum of 29 April 1994, a cultural resources program has been established at FWDA. The Army has initiated consultation with the Navajo, Zuni, Hopi, Apache, Comanche, Isleta Pueblo, Pueblo of Laguna, Pueblo of Acoma, and Pueblo of San Ildefonso and invited them be consulting parties. Only the Navajo Nation and the Pueblo of Zuni expressed interest in consulting.

In 1991, a Memorandum of Agreement (MOA) was signed by the Army and the Advisory Council on Historic Preservation to set forth standard procedures the Army would follow for the identification, evaluation, treatment and management of historic properties. In accordance with the 1991 MOA, the Army completed an archaeological survey of FWDA (with the exception of Area 3 which was excluded for safety reasons) in 1997. The 760 archaeological sites identified during this survey were evaluated for eligibility for the National Register of Historic Places (NRHP). The Army determined that 551 of the 760 sites meet one or more criterion for eligibility. These determinations of eligibility were sent to the tribes and the New Mexico State Historic Preservation Officer (SHPO) on May 1, 2012. The SHPO concurred with the determinations of eligibility in a letter dated May 31, 2012. Many of the 551 eligible sites occur on the subject parcels.

Also in accordance with the 1991 MOA, the Army conducted surveys to identify properties of traditional significance to the Zuni and the Navajo in 2011. These findings were sent to the NM SHPO for comment, review and concurrence in October 2013. The SHPO requested more time to review these reports and have not yet concurred with the Army's findings. Until concurrence is received, the Army will treat all properties of traditional significance identified as eligible for the NRHP. In addition to completing base-wide surveys for archaeological sites, the Army continuously consults with both the Navajo and Zuni for specific cleanup activities as required under both the MOA, RCRA Permit, and PA.

In 2008, a Programmatic Agreement (PA) was developed to address activities the Army planned to undertake for the RCRA cleanup permit issued from New Mexico Environment Department, described below. The PA was signed by the Army, the NM SHPO, The Navajo Nation and the Pueblo of Zuni in May 2008. The PA specifically sets up safety-based restrictions on cultural resources work and establishes procedures for notification to tribes of upcoming RCRA related activities. The PA also sets up guidelines for allowing archaeological personnel to work with MEC cleanup personnel to assure cultural resources will be avoided to the extent practicable during cleanup and how removal and/or destruction in place of unexploded ordnance will be coordinated with the tribes and SHPO. The PA expires in 2018, and is currently in the process of being updated. The new PA will not apply to the subject parcels.

FWDA has also conducted several archeological actions in order to achieve compliance under NAGPRA. Two studies were completed in 1995 and 1997 looking to inventory and potentially return Native American remains found on FWDA to the appropriate tribes. Several archeological items, including human remains, were located and catalogued in order to provide an inventory for compliance for NAGPRA. More recently, the Army received a further request for information concerning potential human remains found in parcels 5A and 14, and that investigation is ongoing.

4.0 Survey Methodology

4.1 Development of Study Sections

The information gathered during the development of the ECP was used to group each of the nine subject parcels into standardized categories using DoD guidance, and in accordance with ASTM D5746 (2016). The ECP parcel category definitions are summarized below in Table 4.

Table 4: Definitions of ECP Categories

ECP Category	Definition
1	An area or parcel of real property where no release, or disposal of hazardous substances or petroleum products or their derivatives has occurred (including no migration of these substances from adjacent properties).
2	An area or parcel of real property where only the release or disposal of petroleum products or their derivatives has occurred.
3	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
4	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken.
5	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred and removal or remedial actions, or both, are under way, but all required actions have not yet been taken.
6	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but required response actions have not yet been initiated.
7	An area or parcel of real property that is unevaluated or requires additional evaluation.

The final ECP category designations for each parcel are shown in Section 6.2.

4.2 Visual Site Inspection

Several VSIs were conducted in the past for the subject parcels for previous projects, and these were reviewed for previous recognized conditions. VSIs were conducted for parcels 4B, 5B, 8, 10A, and 25 as part of a 2012 environmental site assessment, and parcel 14 underwent a VSI in 2008. There has been no development on these parcels since these previous VSIs, so the inspections are assumed to be valid.

A VSI was conducted on August 10, 2017 at the nine subject parcels. The perimeter patrol road was driven and a windshield inspection was conducted to check for recognized environmental conditions. Due to the limited amount of vegetation present, each of the parcels could be inspected from the patrol road. Elevated power lines were observed along parcels 10A, 10B, 12, and 14, and there was evidence that power line maintenance crews had staged equipment adjacent to the lines. Parcel 25 showed signs of railroad activity, with railroad cars staged adjacent to the Western Gas Processors, Ltd. storage tank. No recognized environmental conditions were identified.

4.3 Aerial Photography Analysis

An aerial photography analysis for the entirety of FWDA was completed in September 2006 by Environmental Research, Inc. (ERI). This analysis was updated in 2012 by the E.W. Wells Group LLC

for parcels 4B, 5B, 8, 10A, and 25. Both analyses analyzed aerial photography from 1935, 1948, 1952, 1958, 1959, 1962, 1966, 1973, 1978, 1985, 1991, 1993, 1997, and 2005. Due to the lack of use of the subject parcels in the last 10 years, as well as the availability of aerial footage, a new aerial photography analysis was not completed. The ERI report can be found in Appendix A.

4.4 Sanborn Map Review

Sanborn maps were not available for the nine subject parcels, or for the adjacent areas.

4.5 Topographic Map Review

A topographic map review was completed in 2012 as part of a Phase 1 investigation into parcels 4B, 5B, 8, 10A, and 25. Due to the lack of use of the subject parcels in the last 10 years, a new topographic map review was not completed. The 2012 topographic map review can be found in Appendix B.

4.6 Records Review

4.6.1 Standard Environmental Record Sources

A search of federal and state environmental databases was conducted on August 1, 2017 by Environmental Data Resources, Inc. (EDR). The search looked for listed sites on or around the subject FWDA parcels, using standard search distances. The results of the database search are summarized below in Table 5, and the complete EDR report is presented in Appendix C.

Table 5: EDR Report Databases, Search Radii, and Results

Standard Record(s) Source	Number of Sites	Search Distance (miles)
Federal National Priorities List (NPL)	0	1.0
Federal Delisted NPL	0	0.5
Federal Proposed NPL	0	0.5
Federal SEMS (CERCLIS) list	1	0.5
Federal RCRA Corrective Action facilities list	1	1.0
Federal RCRA TSD facilities list	1	0.5
Federal RCRA generators list	1	Property and adjoining properties only
Federal institutional control/engineering control registries	1	Property only
Federal ERNS list	0	Property only
NM NPL		1.0
NM equivalent CERCLIS list	0	0.5
NM or Tribal landfill and/or solid waste disposal sites	0	0.5
NM or Tribal LUST list	2	0.5
NM or Tribal registered UST list	1	Property and adjoining properties only
NM or Tribal institutional control/engineering control registries	N/A	Property only
NM or Tribal VCP sites	0	0.5
NM Brownfield sites	0	0.5

4.6.1.1 Federal National Priorities List (NPL)

The National Priorities List (NPL) is the Environmental Protection Agency's (EPA) 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 the subject FWDA parcels.

4.6.1.2 Federal SEMS (CERCLIS) List

The Superfund Enterprise Management System (SEMS) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. This list was formerly known as the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS), renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of CERCLA. This dataset also contains sites which are either proposed to or on the NPL and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

FWDA was identified as the only site within the search radius from the SEMS database. According to the database, FWDA was evaluated for inclusion on NPL, but was determined in March 1993 to not qualify for the NPL based on existing information.

4.6.1.3 Federal RCRA Corrective Action

The RCRA Corrective Action Activity database (CORRACTS) lists sites where corrective action has been conducted the RCRA statute. The database notates all nationally-defined corrective action events at all applicable units within a site, including RCRA investigations, corrective measure studies, designs, construction, implementation and any community involvement required under RCRA.

FWDA was identified as the only site within the search radius from the RCRA corrective action database. Cleanup at the various portions of the facility before 2005 has been conducted almost exclusively under RCRA corrective action. Below is a partial list of RCRA corrective action events that have occurred at FWDA. This list is not exhaustive, and RCRA permitted actions that have been conducted at any of the nine subject parcels will be addressed below in Section 5.1.1.

Table 6: RCRA Corrective Actions

RCRA Action	Date	FWDA Location/RCRA Unit
RCRA Facility Investigation (RFI)	April 1992	Sitewide
RFI	August 1992	Open Burn/Open Demolition Area (OB/OD)
RFI	December 1992	OB/OD Area
Corrective Measure Study	March 1993	OB/OD Area
Corrective Measure Design	May 1994	OB/OD Area
Corrective Measure Construction	March 1996	OB/OD Area
Corrective Measure Design	May 1997	Bldg. 503
RFI	November 1997	Leaching Beds
Corrective Measure Construction	January 1998	Bldg. 5
Corrective Measure Construction	June 1998	Bldg. 503
Corrective Measure Design	June 2002	Bldg. 11

4.6.1.4 Federal RCRA TSDFs

RCRAInfo is EPA's comprehensive information system providing access to data supporting the RCRA of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined

by RCRA. TSDFs treat, store, or dispose of the waste. RCRAInfo identified FWDA as the sole TSDF in the search radius.

4.6.1.5 Federal RCRA Generators

As mentioned above, the RCRAInfo database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by RCRA. Hazardous waste generators are sorted by the quantity of waste they generate. FWDA was identified as a small quantity generator, generating between 100 kg and 1000 kg of hazardous waste per month, although it is unclear from the EDR report from which parcels this waste is generated.

4.6.1.6 Federal Institutional and Engineering Controls

This list is a compilation of sites where institutional or engineering controls are in place, to limit or prevent exposure to harmful onsite contaminants. This list identified FWDA as the sole site in the search radius with engineering and/or institutional controls in place. The list does not specify what controls where put in place or when, but FWDA has groundwater and non-groundwater engineering controls established. However, further investigation into FWDA records has shown no evidence of groundwater controls.

4.6.1.7 Federal ERNS Database

The Emergency Response Notification System (ERNS) is database of spills or releases reported to the United States Coast Guard's National Response Center. No sites in the search radius were identified.

4.6.1.8 Other Federal ASTM Supplemental Records

The EDR radius report searched numerous other Federal records and databases, including an abandoned mines database, a lead smelter list, and a database containing known radioactive sources, just to name a few. The full list of databases searched can be found in Appendix C. None of the additional Federal sources identified any sites within the search radius.

The EDR radius report also identified water wells within the search radius, using existing United States Geological Survey (USGS) records. The well search identified 13 wells, 5 of which appear to be associated with the FWDA facility. Four of the identified wells appear to be located in parcels 12 and 14, although Army records do not indicate the existence of these wells. No other useful information is given concerning these water wells. The complete well search can be found in Appendix D.

4.6.1.9 New Mexico and Tribal NPL

The State of New Mexico do not have an NPL list, although the state does have State Cleanup Sites list. No sites were identified from this list within the search radius.

4.6.1.10New Mexico and Tribal SEMS (CERCLIS)

The State of New Mexico does not maintain a SEMS or CERCLIS equivalent list. As mentioned above, the state does have State Cleanup Sites list. No sites were identified from this list within the search radius.

4.6.1.11New Mexico and Tribal Solid Waste/Landfill Sites

Both the State of New Mexico and Tribal Nations maintain a list of landfills and solid waste disposal facilities. No sites were identified from this list within the search radius.

4.6.1.12New Mexico and Tribal Leaking Storage Tanks List

Both the State of New Mexico and Tribal Nations maintain lists of facilities with leaking storage tanks. These lists include leaking ASTs and USTs. State records did not identify any sites within the search radii, although tribal records identified two leaking USTs in the search radius. The first is identified as the "Church Rock Industrial Site", with no accompanying information other than it was a suspected release

on Navajo land. Without an address, it's impossible to deduce the location of this site. The second site is Thompson's Market located at 34 Telstar Road in Church Rock. According to the record, cleanup had been initiated in 2011 and was still ongoing under the oversight of the Navajo Nation Environmental Protection Agency. A review of recent aerial photography did not indicate the continued existence of the market.

4.6.1.13New Mexico and Tribal Registered Storage Tanks List

Both the State of New Mexico and Tribal Nations maintain lists of facilities with registered storage tanks. These lists include ASTs and USTs. Two registered storage tanks were identified on Navajo land at the site of the former Thompson's market, discussed above. Both tanks held gasoline and are labeled as being permanently out of use. No other sites were identified within the search radii.

The 2012 Phase 1 assessment (shown in Appendix B) indicates that several USTs were removed from FWDA in 1993 after a petroleum release occurred. These USTs were located in the administration area (parcel 11), and were determined to require no further action.

Further information regarding potential groundwater contamination in the vicinity of these petroleum storage tanks was obtained through review of the Phase 1 document. This report describes reference to an ongoing quarterly groundwater monitoring program involving 87 groundwater monitoring wells and piezometers completed both in an alluvial water bearing formation and an underlying water-bearing unit in sandstone bedrock. This monitoring program includes analyses for petroleum constituents including volatile organic compounds by Method 8260, semi-volatile organic compounds by Method 8270, Diesel-Range Organics, and Gasoline Range Organics. Depth to water in monitoring wells and piezometers completed the alluvial water bearing formation measured April 2010 through October 2011 was on the order of 20 to 60 feet below ground surface, depending on location and season. Groundwater elevations in bedrock were somewhat deeper, some up to 100 feet below ground surface. By reference, this report concluded that although petroleum constituents were detected in multiple locations and the westerly flow from the Administration Area is toward parcel 8, none of the results indicate levels posing a concern to the parcels. FWDA is performing semi-annual groundwater monitoring on wells located in and south of the administration area in parcel 11. The monitoring is performed in accordance with the FWDA RCRA Permit.

4.6.1.14New Mexico and Tribal Institutional and Engineering Controls

The State of New Mexico maintains a list of sites where institutional or engineering controls are in place, to limit or prevent exposure to harmful onsite contaminants. No sites were identified from this list within the search radius.

4.6.1.15New Mexico and Tribal Voluntary Cleanup Sites

Both the State of New Mexico and Tribal Nations maintain lists of facilities conducting cleanups under a voluntary cleanup program. No sites were identified from this list within the search radius.

4.6.1.16New Mexico and Tribal Brownfield Sites

The State of New Mexico maintains a list of Brownfields sites where assessment, cleanup, and redevelopment are either being considered or are occurring. No sites were identified from this list within the search radius.

4.6.1.17Other State and Tribal ASTM Supplemental Records

The EDR radius report searched numerous other state and tribal records and databases, including a dry cleaner database, a clandestine drug laboratory list, and a database containing air quality permits, just to name a few. The full list of databases searched can be found in Appendix C. None of the additional state or tribal sources identified any sites within the search radius.

The EDR radius report also identified water wells, oil and gas wells, and public water supply systems within the search radius from existing state and tribal records. The search identified 9 water wells, one oil and gas well, and three public water supply systems in the search radius. Several of the water wells are associated with the ConocoPhillips facility in west Church Rock, and are arrayed to the north of I40. The lone oil and gas well was operated by El Paso Natural Gas until it was plugged in 1954, and is located nearly a half mile to the northwest of parcel 10A. The two of the three identified public water systems are located in the adjacent communities of Rehoboth and Church Rock. The third system, called the "White Cliffs Mutual Domestic Water Users" system, appears to be located in Parcel 14 of FWDA, although other sources show this cannot be the case. The complete well search can be found in Appendix D.

4.7 Interviews

Interviews have been conducted on several occasions for a variety of reasons at FWDA. The most comprehensive interviews were conducted in 2007 for the RCRA permit # NM 6213820974, issued in 2005. The permittee was required to interview persons familiar with current and past activities and operations at FWDA. Additional interviews were conducted in 2012 as part of a Phase 1 investigation at parcels 4B, 5B, 8, 10A, and 25. Due to the lack of use of the subject parcels in the last 10 years, new interviews were not conducted, as the past interviews were deemed acceptable. The 2007 interview report can be found in Appendix E, and the 2012 Phase 1 can be found in Appendix B.

4.8 Data Management

Data obtained during the ECP assessment were provided in electronic and/or hard copy format. A complete list of documents is provided in Section 8.0.

5.0 Environmental Conditions

5.1 Environmental Permits and Licenses

5.1.1 RCRA Status

The current environmental cleanup and restoration efforts at FWDA have been conducted under RCRA permit EPA ID # NM 6213820974-1 since December 1, 2005. Text of the currently applicable 2015 permit can be found in Appendix L. All parcels in FWDA were included in the scope of the permit, regardless of whether the parcels contained and Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs). Since 2005, the Army has investigated and gotten approval for release of the nine subject parcels from the RCRA permit, and therefore clearance for subsequent property disposal.

5.1.1.1 Parcels 4B, 5B, and 8

Parcels 4B, 5B, and 8 were investigated by the Army twice in 2007. Interviews with past parcel users and aerial photograph analyses were conducted in 2006-2007. The results of these investigations indicated the presence of small open patches of land on the parcels, and further investigation was conducted in October 2007. The subsequent investigation, as detailed in the October 2007 document entitled *Report of Investigation for Potential Environmental Areas of Concern*, concluded that the small patches of land (two in parcel 4B, two in parcel 5B, and four in parcel 8) were used to temporarily store excess ammunition that had been shipped back from various theaters in WWII. Each site in parcels 4B, 5B, and 8 were tested for explosives using a multi-incremental sample from 30 sub-samples, from a depth of 0-6" bgs. The sites were also visually inspected and scanned with a metal detector by an Army Ordnance and Explosives Safety Specialist (OESS). No munitions or explosives were detected. The 2007 interviews also revealed the presence of a proposed small arms trace test range in parcel 8. The area, which consisted of a small earthen berm, was surveyed and tested for explosives and lead. A 2008 sampling event showed explosive compounds and lead concentrations below established background values in the soil. The Army applied to have the three parcels removed from the RCRA permit, and this permit modification was approved on March 19, 2009 (NMED, 2009). The USDI conducted one further Phase 1 investigation on September of 2012 in support of the impending property transfer, and no recognized environmental conditions were found (E.W. Wells Group, 2012).

5.1.1.2 Parcel 5A

As of the issuance of the 2005 RCRA permit, parcel 5A contained two AOCs: AOC 78 and AOC 82, which were subsequently combined into one investigation area. AOC 78/82 was a series of small graded clearings located along the western portions of parcels 4A, 5A, and 6. The AOC was identified using aerial photography, and were determined to be open ammunition storage sites, or standard ammunition magazines. These magazines consisted of small open air structures with no walls, and were used to temporarily store ammunition from the 1940's to the 1960's. The portions of the AOC in parcel 5A were investigated in 2008 for lead and explosives using multi-incremental sampling along with geophysical surveys. Various scrap metal items were located in the AOC, but no MEC was found. Based on this, and the concentrations of explosives and lead being below cleanup standards, a 2009 RFI work plan for parcel 6 recommended No Further Action (NFA) in the AOC. NMED concurred with the NFA determination in an October 21, 2010 letter, and the parcel was removed from the RCRA permit on April 7, 2014 (NMED, 2014).

5.1.1.3 Parcel 10A

In 2005, parcel 10A was identified as having two sites within its boundaries. AOC 44 refers to the Former Administration and Utilities Area, which extended across portions of parcels 7, 9, 10A, and 10B. Parcel 10A also included a WWI storage site, 35F-259. The Former Administration and Utilities Area in use from 1919 to 1939. The Administration Area was located on the eastern portion of the parcel with a dirt

airfield laid out in an X pattern to the west of the Administrative area. The 1935 aerial photography shows two narrow clearings in the eastern part of Parcel 10 that are airstrips. The airstrips appear to be over 1,000 feet in length and intersect each other perpendicularly, forming an X pattern. The aerial photography also shows several buildings immediately to the east of the airstrips. Based on 1952 aerial photography, the airstrips were abandoned sometime between 1935 and 1952 along with demolition of the buildings. A VSI performed in June 2002 revealed remnants of concrete pads that were more than likely foundations to some of these buildings. Despite a lack of evidence that a release occurred in AOC 44, the Army decided to conduct soil sampling in March 2009 to supplement preexisting data from June 2008. For these two sampling events, over 26 total soil samples were taken throughout parcels 7, 10A, and 10B, and analyzed for explosives, metals, pesticides, Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs, and gas and diesel range organics. The area was also inspected for munitions by an OESS using a magnetometer. No munitions were found, no explosives detected in soil, and only two samples (arsenic) exceeded NMED residential soil screening levels. It was concluded that the arsenic samples reflected background levels, and the Army suggested a follow-up background study. The subsequent background study was conducted as part of the parcel 10B investigation (see section 5.1.1.4). No further action was recommended for the area within parcel 10A.

The WWI Storage Site, 35F-259, was one of the frame storage buildings from the 1919-1939 period. The WWI sites had a wood building with a metal roof and were about 20’ x 50’ in size and stored bulk explosives in boxes. These buildings were demolished prior to the start of World War II to make room for the current facilities on FWDA. Based on 1948 aerial photography, the building was demolished sometime between 1935 and 1948. The Army subsequently investigated the site for munitions, and conducted a soil investigation in April 2007. No munitions were found, and all soil samples were non-detect for explosives. No further action was recommended for the area.

The 2002 VSI also revealed several graded areas in the northwestern section of Parcel 10A close to I40, along with a sand and gravel crushing facility on a south-facing bluff in the central part of the parcel, where areas on the bluff and north of the bluff had been strip-mined for sand and gravel. The graded areas were more than likely used to stage construction equipment while the highway was being constructed. The sand and gravel crushing facility may have performed sand and gravel mining in support of the highway construction. However, the now abandoned strip mines did not appear to represent a source of potential environmental contamination, and the Army recommended the facility be demolished and a barricade constructed.

As a result of the above investigations, parcel 10A was approved for removal from the RCRA permit on August 4, 2010 (NMED, 2010).

5.1.1.4 Parcel 10B

Along with AOC 44 (discussed above), parcel 10B also featured SWMU 26, a large berm of soil north of the railroad classification yard referred to as the Suspected Petroleum, Oils, and Lubricants (POL) area. Historical investigations suspected the area as being an oil disposal area due to its proximity to the railroad. Soil sampling was conducted in 1992, and again in March of 2009, and showed exceedances of arsenic, similar to AOC 44. An RFI was conducted from 2010 to 2012, and concluded the need for an arsenic background study. Two background studies for FWDA were completed, the latter of which was approved by NMED on July 23, 2013. The report concluded that all FWDA sites with arsenic values under a certain threshold, and with no evidence of Army releases, could be approved for NFA. The arsenic values found at both AOC 44 and SWMU 26 were below the stated threshold, and the Army stated that no further action was needed, concluding that SWMU 26 was in fact used as an explosive barrier due to its height and location relative to the railroad spur. Parcel 10B was approved for removal from the FWDA RCRA permit on February 25, 2015 (NMED, 2015).

5.1.1.5 Parcels 12 and 14

As of 2005, parcel 12 contained two AOCs: AOC 75 and part of AOC 93; parcel 14 contained the majority of AOC 93. Parcel 25 contained no AOCs or SWMUs. On the 2005 RCRA permit, AOC 75 refers to all of the electrical transformers on FWDA, which as of 2008 refers to 65 total transformers. Only one of the transformers was located in parcel 12, on a pole east of the main facility gate. A June 2008 RFI stated the transformer was a non-PCB transformer, and concluded that AOC 75 in parcel 12 posed no threat to human health or the environment. NMED concurred with the NFA determination on December 8, 2010.

AOC 93 is described as the Bivouac and Tank Training Area and is located mostly in parcel 14, with portions extending into parts of parcel 12. AOC 93 was used by New Mexico National Guard units to conduct training exercises from 1972 to 1990. The June 2008 RFI work plan found that weapons were not fired during these exercises, and the exercises occurred no more than 3 times per year. A munitions survey and soil sampling was conducted in the AOC across both parcels at a series of debris piles believed to be associated with the training maneuvers. No munitions were found and all samples were found to be below applicable soil screening levels. NMED approved the NFA determination on December 8, 2010, and both parcels were approved for removal from the RCRA permit on April 7, 2014 (NMED, 2014).

5.1.1.6 Parcel 25

As of the 2005 RCRA permit, parcel 25 did not contain any AOCs or SWMUs. NMED expressed interest in the AST owned by Western Gas Processors, Ltd., and the Army conducted two soil investigations in 2008 that showed no constituents above regulatory limits. NMED concurred in August of 2008, and the parcel was approved for removal from the RCRA permit on January 6, 2009 (NMED, 2009).

5.1.2 Solid Waste

The nine subject parcels have no active, inactive, or expired permits or licenses for solid waste disposal. No landfills exist on any of the nine subject parcels.

5.1.3 USTs/ASTs

One AST, located on parcel 25 and owned by Western Gas Processors, Ltd., is present on the nine subject parcels. No other ASTs or USTs are present on any of the nine subject parcels. A brief investigation on parcels 10A and 10B, as part of the 2009 investigation at AOC 44, looked for USTs in the Former Administration and Utilities Area. No USTs were located as part of this investigation (USACE, 2009).

5.1.4 National Pollutant Discharge Elimination System (NPDES)

Section 402 of the Clean Water Act (33 U.S.C. 1251 et. seq.) requires all facilities that discharge stormwater in navigable waterways to acquire an NPDES that defines contaminant limits in effluent to be discharged. No NPDES permits are in place on the nine subject parcels, although the Construction General Permit (CGP) has been used at other areas of FWDA during construction projects.

5.1.5 Drinking Water Permits

No drinking water permits are in place at any of the nine subject parcels.

5.1.6 Air Permits

No air emission or air quality water permits are in place at any of the nine subject parcels.

5.1.7 Nuclear Regulatory Commission (NRC)

The NRC is tasked with permitting the use and handling of radioactive materials and reactors. No NRC licenses are in place at any of the nine subject parcels.

5.1.8 Other Permits/ Licenses

No additional permits or licenses were identified during records research or the VSI.

5.2 Environmental Cleanup and Remediation

5.2.1 Installation Restoration Program

There are currently several cleanups ongoing in various parcels of FWDA under the Installation Restoration Program (IRP). These cleanups are detailed in FWDA's Installation Action Plan in Appendix K. However, there are no IRP cleanups ongoing in any of the nine subject parcels.

5.2.2 Military Munitions Response Program

Similar to the IRP program, there are currently several munitions cleanups ongoing in various parcels of FWDA under the Military Munitions Restoration Program (MMRP). However, there are no MMRP cleanups ongoing in any of the nine subject parcels.

5.2.3 Other Environmental Investigations and Cleanups

As mentioned above, various parcels at FWDA have been investigated under CERCLA, RCRA corrective action, a RCRA permit, the IRP, and the MMRP. However, there are no cleanup actions under any authority currently planned or underway at the nine subject parcels.

5.3 Storage, Release, and Disposal of Hazardous Substances

There are no hazardous substances of any kind stored on any of the nine subject parcels, with the exception of parcel 25. Parcel 25 contains an AST owned and operated by Western Gas Processors, Ltd., that historically contained sulfuric acid for railroad operations. Subsequent information showed the facility to be used for storage of de-icing compounds, although the specific substance was not identified. Soils sampling around the AST showed no hazardous constituents present above regulatory limits (USACE, 2008).

No hazardous substances have been disposed of on any of the nine subject parcels, and any potential releases have been investigated to the satisfaction of NMED.

5.4 Petroleum and Petroleum Products

No petroleum or petroleum products are present on any of the nine subject parcels. Several past investigations at RCRA units within the nine parcels have investigated the possibility of petroleum products being present as a result of past activities. The investigations at the Former Administration and Utilities Area in parcel 10A, and the Suspected Petroleum, Oils, and Lubricants (POL) area in parcel 10B in particular looked for evidence of petroleum or petroleum products. These investigations did not identify any of these products, and it was concluded that if these substances were present on the nine parcels, they were not released into the environment (USACE, 2012).

5.5 Polychlorinated Biphenyls (PCBs)

No evidence exists of the presence of PCBs on any of the nine subject parcels. Parcel 12 underwent an investigation as to the possible presence of a pole mounted PCB transformer adjacent to the entry point guard shack. However, the investigation concluded that the transformer was of the non-PCB variety (TerranearPMC, 2008).

5.6 Asbestos

Asbestos has been investigated on parcels 10B, 12, and 14. A RCRA permit investigation into the possibility of asbestos in soil in parcel 10B was completed in 2013 with negative results (USACE, 2013b). Building 18 on parcel 12, built in 1942, is documented to contain asbestos in building components. The first record reviewed for Building 18 was a roof replacement as-built from 1981-82. Roofing materials from this era had the potential to contain asbestos, so the presence of asbestos in the building should be assumed. A 1990 asbestos inspection did not mention the roof, but found 15 linear feet of deteriorated, friable pipe insulation containing 30% chrysotile asbestos and 20% amosite asbestos in the basement of Building 18. The 1990 report also identified 400 square feet of tan, non-friable, 9" x 9" floor tile and mastic on the ground floor of the building, containing 20% chrysotile asbestos. The basement pipe insulation was removed in August 1999, but the floor tile has not been removed and is still in place (FWDA, 2008).

As stated above, parcel 25 is under an indefinite lease to the BNSF, which has subleased a portion of the parcel to Western Gas Processors, Ltd for the storage and distribution of deicing compounds. As a result, elements of the rail compound installed by the lessor may contain asbestos, but the Army has no record of asbestos being present on the parcel.

5.7 Lead and Lead-Based Paint (LBP)

The presence of lead in soil has been investigated throughout the facility on numerous occasions, due to FWDA's history as an ammunition depot. Several of the subject parcels, including parcels 4B, 5B, and 8, have been investigated for lead, but all have reached the NFA determination. Building 18 on parcel 12 is documented to have LBP in several building components including a metal stair riser, the interior brick wall, the exterior door frame, and the interior foundation, among others. A 2008 Building Status Survey for Building 18, showing all components containing LBP, is included in Appendix F.

As stated above, parcel 25 is under an indefinite lease to the BNSF, which has subleased a portion of the parcel to Western Gas Processors, Ltd for the storage and distribution of deicing compounds. As a result, elements of the rail compound installed by the lessor may contain LBP, but the Army has no record of LBP being present on the parcel.

5.8 Radioactive Material

According to an October 1999 letter from the U.S. Army Center for Health Promotion and Preventative Medicine, a 1998-1999 study showed that no radiological activities or activities involving radioactive materials are associated with the nine subject parcels (U.S. Army, 1999).

5.9 Landfills/Dumps

No landfills or dumps have been identified on any of the nine subject parcels. There is one documented example of garbage being dumped on the western edge of parcel 10A, but no hazardous material was found in the debris (DHL Analytical, 2012).

5.10 Munitions and Explosives of Concern (MEC) and/or Unexploded Ordnance (UXO)

As mentioned above, various parts of the nine subject parcels have been investigated for explosives or UXO on a reason-to-believe basis. A NFA determination has been reached on all nine of the parcels, indicating that none of the investigations have found any explosive constituents above regulatory screening levels or any UXO. Several of the nine parcels were used as explosive buffers for the ammunition igloos in the interior of the FWDA facility. Parcels 4B, 5B, and 8 were used to temporarily store excess ammunition that had been shipped back from various theaters in WWII as described in

Section 5.1.1.1. However, no explosions or munitions activity have been documented that would indicate munitions debris or ammunition remained in any of these buffer areas.

5.11 Radon

A radon inspection was completed in 1992 whereby all active buildings on the facility were tested for radon for one year. None of the resulting samples exceeded regulatory limits, and the radon testing program at FWDA was considered complete (U.S. Army, 1992).

5.12 Pesticides

Records show that pesticides were historically stored in the workshop area of FWDA, particularly Building 537. This implies that pesticides were used at locations around the facility, but no records exist showing their use, either on the nine subject parcels or elsewhere. Pesticides were detected in soil in AOC 44 on parcel 10B, although at levels below regulatory screening levels. The Army proposal for no further action was approved by the State of New Mexico, and as a result, no remediation was required (NMED, 2014).

5.13 Other Identified Concerns

There are no other identified environmental concerns to be noted.

5.14 National Environmental Policy Act (NEPA)

One major NEPA document, an Environmental Impact Statement (EIS) written in 1991, has been completed following the first round of BRAC. In April 2010, USACE legal determined that no further NEPA documentation was needed, as long as the actions on the facility continued to be conducted under the existing RCRA permit. Additionally, in accordance with NEPA, the federal action of disposal of property requires the completion of a record of environmental consideration for each parcel to be disposed. This documentation was completed for parcels 4B, 5B, 8, and 25 on August 20, 2009; for parcel 10A on August 6, 2010; for parcel 5A, 12, and 14 on April 14, 2014; and for parcel 10B on March 16, 2015.

5.15 Adjacent Properties

Properties adjacent to the nine subject parcels include areas of sparsely inhabited federally managed land, as well as the rest of the FWDA facility. Areas within the main FWDA facility have the potential to show environmental concerns, although the entire facility is being cleaned up under the existing RCRA permit. As a result, no recognized environmental concerns are expected as a result of adjacent properties.

6.0 Evaluation and Conclusions

6.1 Summary of ECP

FWDA currently occupies 15,270 acres of land. This ECP report covers 2,496 acres of land located within FWDA. This sub-area consists of 9 parcels (Parcels 4B, 5A, 5B, 8, 10A, 10B, 12, 14, and 25), and is referred to as "the property". The subject parcels are located in northwestern New Mexico, in McKinley County, approximately 8 miles east of Gallup, NM on US Route 66. The subject properties are arrayed along the northern and western perimeter of FWDA.

Currently, most of the parcels in FWDA are undergoing environmental restoration or evaluation for eventual turnover, and these parcels are not included in this ECP. Approximately 6,460 acres of FWDA (parcels 2, 9, 19, and 20) are also leased to the Missile Defense Agency, a DoD agency, for target rocket launch in conjunction with WSMR.

This ECP report was prepared to characterize the existing environmental conditions at the nine subject parcels at FWDA. It is intended to be an aid in the disposal of real property under the BRAC program. The ECP findings are based on environmental investigations and reports, historical documents, aerial photography, and a site reconnaissance. As part of the ECP process, key elements that were evaluated included the installation's RCRA (hazardous waste), landfill, NPDES, air, UST/AST, ACM, lead/LBP, PCB, pesticides, IRP, MMRP, ranges, radon, radioactive materials, and natural/cultural resource programs.

6.2 Conclusions

Conclusions were based on the available sources of information concerning both past and present uses of the nine subject parcels. Information included readily available data associated with adjacent property records, aerial photography, personnel interviews, Army environmental programs and associated documentation, current and historic investigations, and ongoing response actions. In addition, record sources were reviewed to determine if there have been spills, leaks, discharges, leaching, underground injections, dumping, abandonments, or storage of hazardous substances or petroleum products at the installation. The VSI and interview process included inquires and requests into the existence and availability of records that support the environmental condition of the property.

The nine parcels were classified into one of seven standard ECP area types (categories) as defined by ASTM D5746-98(2016) *Standard Classification of Environmental Condition of Property Area Types for Defense Base Closure and Realignment Facilities*. Below are the seven categories for reference.

Table 7: Definitions of ECP Categories

ECP Category	Definition
1	An area or parcel of real property where no release, or disposal of hazardous substances or petroleum products or their derivatives has occurred (including no migration of these substances from adjacent properties).
2	An area or parcel of real property where only the release or disposal of petroleum products or their derivatives has occurred.
3	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
4	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken.

5	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred and removal or remedial actions, or both, are under way, but all required actions have not yet been taken.
6	An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but required response actions have not yet been initiated.
7	An area or parcel of real property that is unevaluated or requires additional evaluation.

Given these seven categories, the nine parcels are categorized below, along with the reasoning for each classification.

Table 8: Parcels and ECP Categories

Parcel Number	Acreage	ECP Category	Reasoning
4B	168.06 ac.	1	No release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.
5A	159.33 ac.	3	A 2010 RFI work plan investigation indicated the low level presence of several explosive compounds within AOC 78, although at levels below regulatory screening levels. This report concluded that the levels posed an acceptable level of risk to human and ecological receptors, and that no further investigation or remediation was required (CH2M Hill, 2009). The Army proposal for no further action was approved by the State of New Mexico.
5B	70.24 ac.	1	No release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.
8	432.29 ac.	1	No release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.
10A	482.85 ac.	1	No release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.
10B	111.89 ac.	3	A 2012 RFI work plan indicated low levels of a variety of compounds within AOC 44 and SWMU 26, although at levels below regulatory screening levels. The Army proposal for no further action was approved by the State of New Mexico. As a result, no remediation is required (NMED, 2014).
12	159.71 ac.	1	No release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.
14	478.70 ac.	1	No release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.
25	432.59 ac.	3	A 2012 Phase 1 assessment indicated evidence that a release had potentially occurred on the parcel as a result of railroad operations, possibly connected to the Western Gas Processors, Ltd. facility. Soil samples were taken in the area and were found to be all below regulatory soil screening levels. The Army

			proposal for no further action was approved by the State of New Mexico. As a result, no remediation is required (NMED, 2009a).

Given the above categorization, below are the final acreages for each of the ECP categories.

Table 9: Final ECP Category Acreage

ECP Category	Total Acreage
1	1791.85 ac.
2	0 ac.
3	703.81 ac.
4	0 ac.
5	0 ac.
6	0 ac.
7	0 ac.

7.0 Certification

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental professional* as defined in Part 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. All information/documentation provided accurately reflects the condition of the property. This report meets the DoD requirements for completion of an ECP Report.

Mark Patterson
BRAC Environmental Coordinator
Fort Wingate Depot Activity

Steven W. Smith
USACE Program Manager
Fort Worth District

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Figures

Figure 1: Fort Wingate and Vicinity

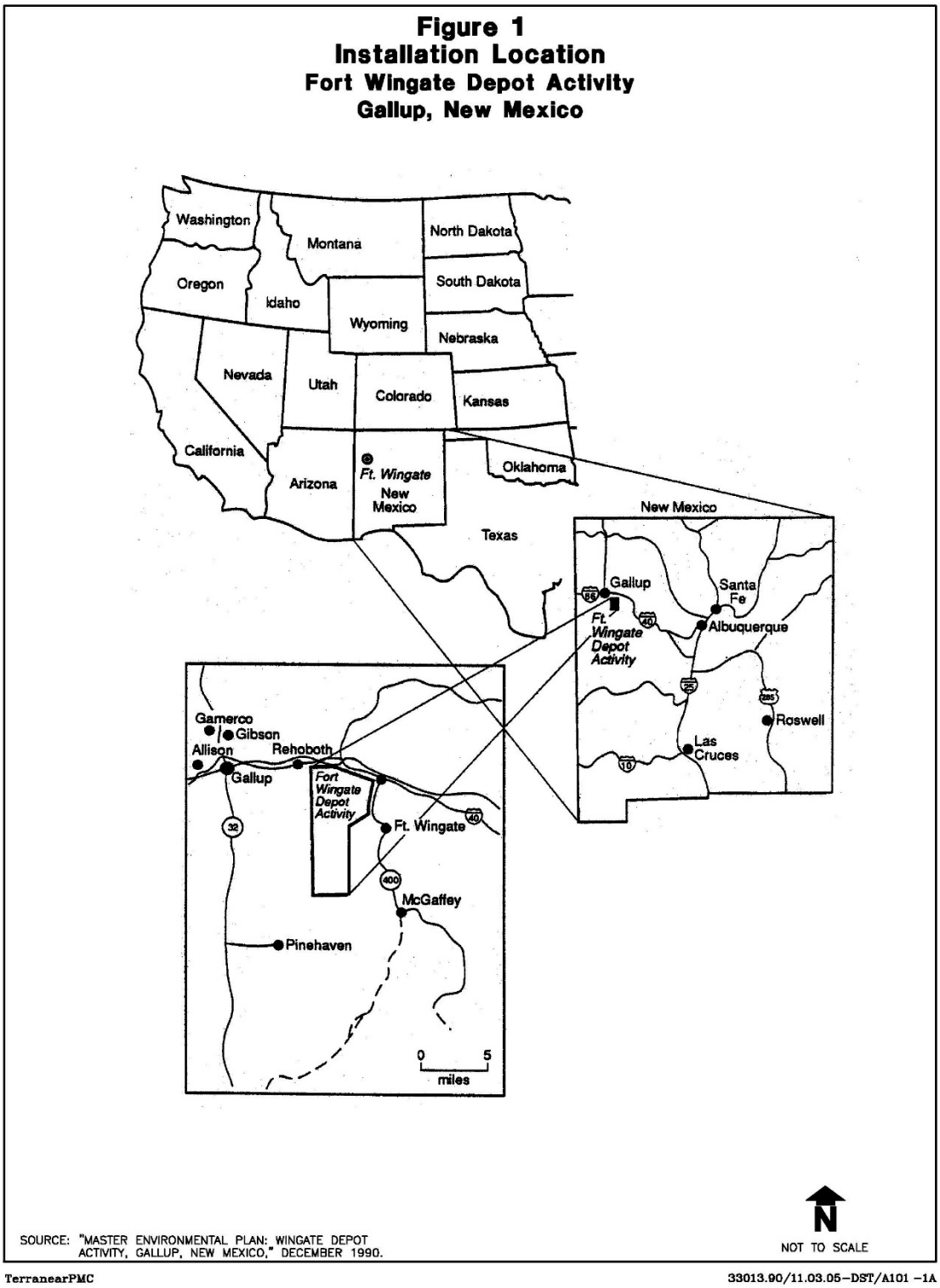

Figure 2: FWDA and Subject Parcels

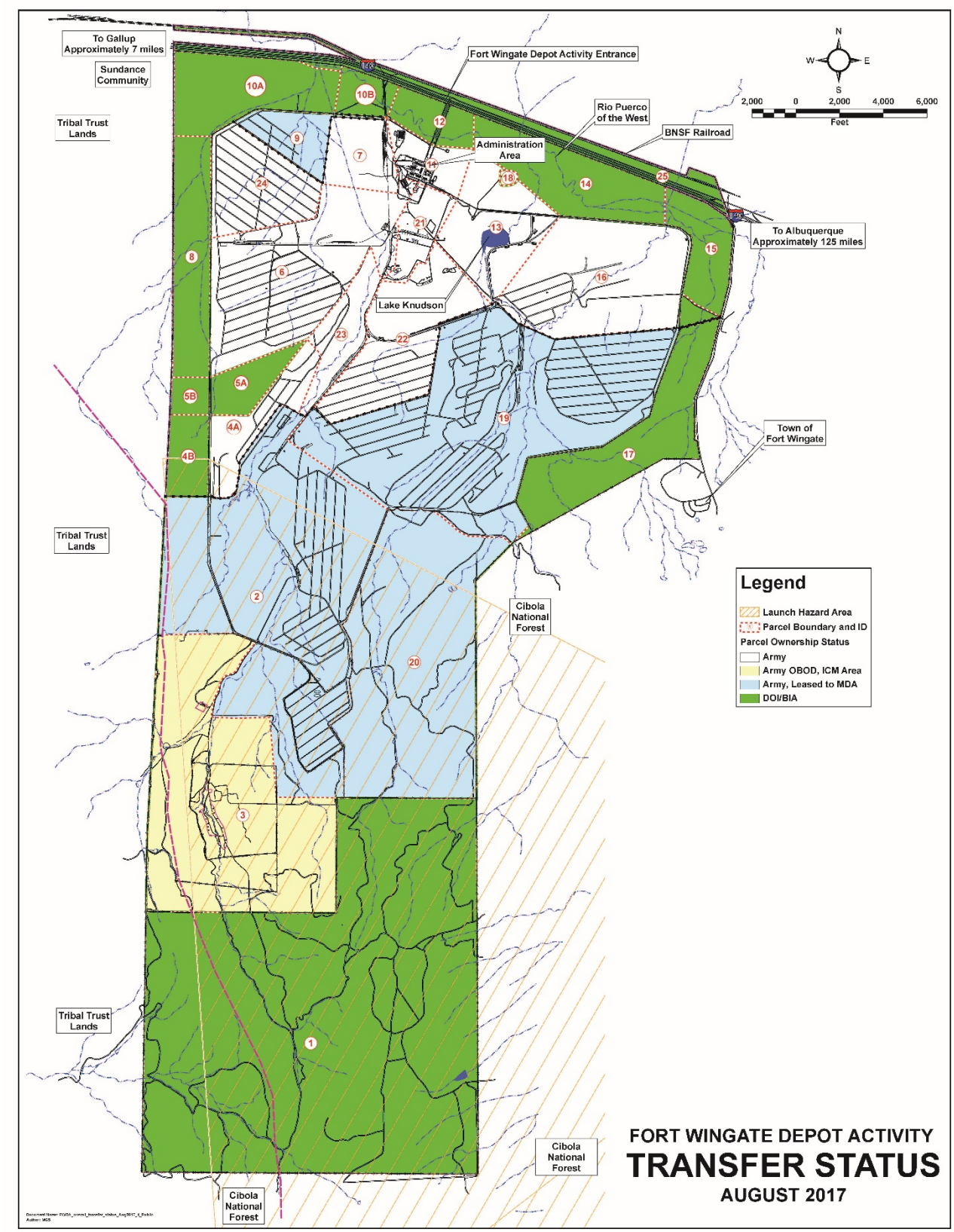

Figure 3: FEMA Floodplain Map for Main FWDA Administration Area