



**U.S. Army Base Realignment and Closure (BRAC)
Environmental Condition of Property (ECP) Report Update
Umatilla Chemical Depot – Oregon**

Prepared by

U.S. Army Base Realignment and Closure Office

December 1, 2021

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CERTIFICATIONS

All information/documentation provided accurately reflects the condition of the Umatilla Chemical Depot Property that is leaving Federal ownership. The report meets the DoD requirements of an update for an Environmental Condition of Property Report.

Richard C. Ramsdell
BRAC Branch Chief
Army Environmental Division (DAIN-ISE)

Date

In accordance with the requirements of 40 Code of Federal Regulations (CFR) §312 concerning the results of inquiry by an environmental professional:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312 of this part.

I have the specific qualification based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312.

Michele M. Lanigan
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Umatilla Chemical Depot
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Date

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ACRONYMS AND ABBREVIATIONS

ADA	Ammunition Disposal Area
AR	Army Regulation
Army	United States Army
ARNG	Army National Guard
ASTM	American Society for Testing Materials
Bldg	building
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CDA	Columbia Development Authority
CFR	Code of Federal Regulations
CMA	U.S. Army Chemical Materials Activity
Demil	Demilitarization
DoD	U.S. Department of Defense
ECP	Environmental Condition of Property
EES	Easement and Equitable Servitude
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
EW	Extraction Well
EWL	Explosives Washout Lagoons
FHA	Federal Highway Administration
FS	Feasibility Study
GB	Nerve agent sarin
gpm	Gallons Per Minute
HD	Mustard agent
HR	Hazardous Substance Release
HS	Hazardous Substance Storage
IF	Infiltration Fields
LUC	Land Use Control
MEC	Munitions and Explosives of Concern
MFR	Memorandum for the Record
mg/kg	Milligrams per kilogram
NFA	No Further Action
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODHS	Oregon Department of Human Services
ODOT	Oregon Department of Transportation
OPS	Operating Properly and Successfully
ORARNG	Oregon Army National Guard
OU	Operable Unit
PMR	Permit Modification Request
ppm	Parts per million
PR	Petroleum Release

PS	Petroleum Storage
QA	Quality Assurance
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine
RI	Remedial Investigation
RI/FS	Remedial Investigation/ Feasibility Study
ROD	Record of Decision
Sq Ft	Square Foot
TDS	Total Dissolved Solids
TNT	2,4,6-Trinitrotoluene
µg/L	micrograms per liter
UDMH	Unsymmetrical dimethyl hydrazine
UMCD	Umatilla Chemical Depot
UMCDF	Umatilla Chemical Agent Disposal Facility
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
UU/UE	Unlimited Use/Unrestricted Exposure
VX	Nerve agent
X	Unexploded Ordnance

1.0 INTRODUCTION

The Umatilla Chemical Depot (UMCD) is located east of Hermiston, in Morrow and Umatilla counties, Oregon at the intersection of Interstates 82 and 84. It was established in 1941 on 17,148.80 acres to support the World War II military mission. In the 1960s the Army began storing the chemical munitions HD (mustard agent) and the nerve agents VX and GB (sarin) at UMCD. The Base Realignment and Closure (BRAC) Commission listed the facility for realignment in 1988. In the 1990s the facility reorganized in preparation for eventual closure, shipping all conventional ammunition and supplies to other installations. The Chemical Materials Agency (CMA) was created for the purpose of storing and disposing of the chemical agents. The CMA built the Umatilla Chemical Agent Disposal Facility (UMCDF) for the purpose of destroying the chemical agents. The facility began operation in 2004 and completed operations in 2011. Recommendations of the 2005 Defense Base Closure and Realignment (BRAC) Commission, made on 8 September 2005, in conformity with the provisions of the Defense Base Closure and Realignment Act of 1990 (Base Closure Act), Public Law (Pub. L.) 101-510, as amended, included the closure of Umatilla Chemical Depot (UMCD), Oregon. In the absence of Congressional disapproval, the BRAC Commission's recommendations became binding on 9 November 2005. BRAC Law stated that closure actions must be completed by 15 September 2011, however the destruction of the chemical munitions per the International Chemical Weapons Convention Treaty would not be completed by that date. The National Defense Authorization Act for Fiscal Year 2012, Pub. L. 112-81 authorized UMCD to be closed and transferred under BRAC Law past September 15, 2011. Chemical demilitarization operations were completed in October 2011 and chemical surety (i.e., the process of cleaning and purging all facilities and equipment of chemical agent) ended in March 2012. On 1 August 2012, the UMCD was closed and transferred to inactive operational status, in accordance with the Defense Base Closure and Realignment Act of 1990, Pub. L. 101-510, as amended and the Installation was closed in August 2012. After closure command authority was assigned to Joint Base Lewis McCord, but is managed by the Department of the Army, Office of the Deputy Chief of Staff, G-9, ISE Division, BRAC Office.

In 2017, 7,500 acres of the UMCD, was transferred to the Army National Guard (ARNG) and subsequently licensed to the Oregon Army National Guard (ORARNG) and thus remains under federal ownership. The Army plans to transfer out of federal ownership 9,648.8 acres of the UMCD to the Oregon Department of Transportation (ODOT) and the Columbia Development Authority (CDA), which is a local reuse authority authorized under state law to accept property made available for reuse and redevelopment pursuant to the BRAC law. This Environmental Condition of Property (ECP) update applies to land leaving Federal ownership (see Map 1 in Appendix A).

In June 2010 the U.S. Army Corps of Engineers prepared an ECP of UMCD to establish a baseline of the environmental condition of property that can be used by the U.S. Army (Army) in decision-making activities associated with future real property transactions, and to determine the environmental baseline condition of the property in preparation for a real property disposal. The ECP was updated in 2013, 2017 and 2019.

1.1 Objective

This document updates the previous ECP reports (2010, 2013, 2017, and 2019) for the property at UMCD which will transfer to the CDA in 2022, 9,511.46 acres (Parcel 1). Those sections, where new information exists, are updated in this report. The majority of the original document remains unchanged. As specified in AR 200-1, the content of the ECP Report depends on the nature of the transaction and the proposed transferee/lessee. Transfers or leases between the Army and non-Federal entities require an ECP Report.

This ECP update meets the Department of Defense (DoD) preparation requirements for an ECP Report. This ECP was performed to collect and document reliable information regarding the environmental condition of the Property prior to transfer out of Federal control in accordance with 42 U.S.C. § 9620(h)(4), Section 15-5 of Army Regulation (AR) 200-1, *Environmental Quality, Environmental Protection and Enhancement*, dated December 13, 2007, and specific conformance with Section 8.3 of DoD 4165.66-M, *Base Redevelopment and Realignment Manual (BRRM)*, dated March 1, 2006 (DoD 2006). The Army prepares an ECP for the following purposes AR 200-1 2007; U.S. DoD 2006):

- a) Summarize historical, cultural, and environmental conditions and include references to publicly available related reports, studies, and permits.
- b) Provide an accurate summary of the environmental condition of the property.
- c) Provide the Military Department with information used to make disposal decisions regarding the property.
- d) Provide the public with information relative to the environmental condition of the property.
- e) Assist in community planning for the reuse of BRAC property.
- f) Assist Federal agencies during the property screening process.
- g) Provide information for prospective buyers.
- h) Provide information about completed remedial and corrective actions at the property.
- i) Assist in determining appropriate responsibilities, asset valuation, and liabilities with other parties to a transaction.

This update contains the information required to comply with the provisions of 42 U.S.C. § 9620(h)(3), which requires a notice that accompanies contracts for the sale, and deeds entered into for the transfer, of Federal property on which hazardous substances may have been stored, released, or disposed.

The updated ECP Report was performed in compliance with American Society for Testing Materials (ASTM) Standard Practice D6008-96., *Standard Practice for Conducting Environmental Baseline Surveys* (ASTM 2005). Although many of the ECP development activities may be considered “due diligence” functions, the ECP Update 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 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 DOD and its components and beyond the scope of the ECP. The DOD, its components, its officers, employees, or contractors make no warranties or representations that any ECP Report satisfies any such requirements for any party.

1.2 Scope

Of the 17,148.80 acres of UMCD land, 7,500 acres was transferred to the ARNG in 2017 for a training enclave for the ORARNG. The ODOT currently has an easement for use of 109.27 acres for the Highway 82/84 interchange and Highway 82 which runs along the east side of UMCD. The ownership of these 109.27 acres will transfer to the Federal High Administration (FHA) and subsequently to the ODOT. The ownership of the remaining 9,539.53 acres will transfer to the local reuse authority, Columbia Development Authority. This ECP only addresses the 9,511.46 acres (Parcel 1) scheduled for transfer in 2022 and not the 28.07 acres (Parcel 2) which will be retained by the Army until required environmental cleanup is complete. The U.S. Army Umatilla Chemical Depot Base Redevelopment Plan was created by the Umatilla Army Depot Reuse Authority, now known as the CDA, in August 2010. That Plan identifies the intended reuse of the CDA property to include a wildlife sanctuary, agricultural use, and private development. Table 1 lists the post closure reuse and Attachment 1 contains maps of the reuse areas and land use control (LUC) areas, which restrict the future reuse of certain sites within the former UMCD footprint.

This ECP update only addresses the properties to be transferred to the CDA in 2022, as the ARNG will manage environmental sites on the 7,500-acre National Guard property and the 109-acre ODOT parcel does not have any areas subject to LUCs or other environmental sites. Table 1 identifies future land uses of the property leaving Army control.

TABLE 1

FUTURE LAND USE DESIGNATION

CDA Area Future Land Use	Acres
Wildlife Refuge	5,676.72
Industrial	989.57
Industrial/Restricted *	964.42
Industrial/Unrestricted **	888.32
UMCDF (Industrial/CDA Demil Area)***	276.56
Agriculture	691.60
Right-of-Way****	24.27
Total Acreage in CDA Area:	9,511.46

* Industrial/Restricted is defined in the UMCD Redevelopment Plan as industrial use that is limited to the utilization of igloos for storage.

** Industrial/Unrestricted is defined as general industrial uses of the land.

*** The Industrial/CDA Demilitarization Area would also be utilized as an unrestricted industrial area, and is named as such only because of its use for chemical demilitarization activities, which ceased in 2012.

2.0 ECP UPDATE METHODOLOGY

Methods employed in completing the ECP Update Report includes updated records review and results of annual inspections, as outlined in this section.

2.1 Records Review

An environmental database review (EDR) was conducted when the original ECP was completed in 2010. There are no significant changes to the surrounding area. The documents within the Administrative record were also reviewed. Any updates that apply to this property have been noted within this ECP Update.

2.2 Interviews

Interviews were not conducted, as the purpose of this ECP is to document the changes/LUCs that have been implemented as part of the remedy. Therefore, information was obtained only through document review of the Administrative Record.

2.3 Site Reconnaissance

A specific site reconnaissance was not conducted as the sites are inspected at least annually. The sites were last inspected in May 2020.

3.0 ECP UPDATE FINDINGS

There are no new findings since the previous ECP, but the implementation of LUCs as a component of some remedial actions have been implemented, thus prompting this ECP Update.

Some remedial sites have not been closed for unrestricted use and require LUCs as part of the final remedy. The applicable sites are either CERCLA or Resource Conservation and Recovery Act (RCRA) environmental response sites (see Map 2 in Appendix A). The CERCLA sites were remediated under applicable Records of Decision (RODs), which set forth the selected remedial actions, defined the clean-up standards and, in some instances, selected LUCs to be implemented following active remediation. In other instances, LUCs were selected as a component of a modification to the remedial action selected in the ROD referred to as an Explanation of Significant Differences (ESD) or Memorandum for the Record (MFR). The LUCs for the RCRA sites were defined in the permit closure permit modification request (PMR). The LUCs will be documented in three places – as an enforceable LUC Remedial Design (LUCRD); as a component of the deed Environmental Protection Provisions; and, in an Easement and Equitable Servitude (EES) that will be recorded at the time of conveyance.

The RCRA sites that have LUCs are:

- a) Umatilla Chemical Agent Disposal Facility (UMCDF) Buildings.
- b) 14 J-Block Igloos: Applies to buildings and six foot in front of the igloo.
- c) Southwest Area Buildings:
 - 115 (demolished; foundation remains): Two satellite accumulation areas.
 - 203: RCRA permitted one-year hazardous waste storage.

The four CERCLA sites that have LUCs are:

- a) Site 24, the Explosives Washout Lagoon Groundwater contamination area (see Map 3 in Appendix A). A portion of the groundwater plume is under the future CDA property and requires LUC's on 437.34 acres of the property.
- b) Site 34, The Active Landfill (closed): The 17.49-acre Active Landfill was a permitted landfill used for the disposal of operationally generated industrial waste (see Map 4 in Appendix A).
- c) Site 39, The Quality Assurance (QA) Function Range: The 635.68-acre QA Function Range was used for testing of conventional munitions, weapons and related materials and requires LUCs on 259 acres (see Map 5 in Appendix A).
- d) Site 47, The Deactivation Furnace: Remediation of the 15.97-acre Deactivation Furnace was completed in 1998. However, since then the lead exposure limits for unrestricted use have decreased and LUCs will be implemented to address these changes (see Map 6 in Appendix A).

3.1 RCRA Site Descriptions

The RCRA sites include:

- a) UMCDF Buildings.
- b) 14 J-Block Igloos: Applies to buildings and six foot in front of the igloo.
- c) Southwest Area Buildings:
 - 115
 - 203

There are no updates to the following information, it is included as it impacts CDA property. UMCD and UMCDF were both permitted by the ODEQ under RCRA for storage and disposal of agent munitions. The UMCD had RCRA permit, OR6 213 820 917 (ODEQ 1997b), for the storage of chemical agents and agent related waste in I-, J-, and K-Blocks and for non-agent waste storage in other locations throughout the depot. The UMCDF was the 276.56-acre multi-furnace incineration facility that disposed of chemical agent munitions stored at UMCD. The UMCDF has completed RCRA closure for permit ORQ 000 009 431 (ODEQ 1997a) which includes both the facility and the associated storage igloos. The applicable LUCs for the UMCDF were incorporated into the UMCD RCRA permit OR6 213 820 917 (ODEQ 1997b) with ODEQ's approval of PMR UMCD-14-002 PERMIT (2)(ODEQ 2014). The UMCDF permit was terminated with the ODEQ's approval of PMR UMCDF-14-001-MISC (IR)(ODEQ 2015).

In June 2018, ODEQ approved a PMR to remove those permitted units that have met the closure standards from the UMCD Hazardous Waste Permit that are located on the portion of property that will be transferred out of U.S. Army control. The requirements for Corrective Action under Module VII of the UMCD Permit is being addressed through the Federal Facility Agreement and the land use restrictions will be incorporated into the EES. By removing these sites from the requirement of a RCRA Permit, the property can transfer with the institutional controls and land use restrictions, and encumber all subsequent property owners, the incorporated deed restrictions and the EES that are protective of human health. Under the EES, ODEQ will be able to enforce violations of the institutional controls, rendering the permit no longer necessary for this property. This action only applies to property leaving Army control. The RCRA sites on the ORARNG

property will be closed following a different process and will be the responsibility of the ORARNG.

3.1.1 UMCDF Buildings

The UMCDF was the 276.56-acre multi-furnace incineration facility that disposed of chemical agent munitions stored at UMCD by the CMA. The UMCD and UMCDF were both permitted by the ODEQ under RCRA permits for storage and disposal of agent munitions. UMCD's original chemical agent stockpile included nerve agents GB, VX, and blister agent, HD (mustard). These chemical agents were stored in a variety of munitions, including:

- a) M55 rockets
- b) 155-millimeter and 8-inch artillery shells
- c) 500 and 750-pound bombs
- d) Land mines
- e) 1 Ton containers
- f) Aerial spray tanks

Construction began in June 1997 on the UMCDF, and in September 2004 UMCDF began its chemical munitions disposal of GB munitions. GB munitions disposal was completed in July, 2007. From October 2007, to November 2008, UMCDF completed disposal of chemical agent VX. On June, 2009, UMCDF began the HD disposal campaign. All stockpiled chemical agents were destroyed by October 2011. The facility destroyed 220,604 munitions and containers containing 3,717 tons of GB, HD and VX via high-temperature incineration.

The UMCDF consisted of numerous buildings for process support, maintenance, utilities, munitions handling and disassembly, agent destruction, and management of residual waste. A major portion of the former UMCDF has been demolished and the infrastructure disassembled in accordance with the closure requirements of the RCRA permit, which terminated in 2015. The remaining buildings on this property are identified below in Table 2.

TABLE 2

UMCDF BUILDINGS

Facility Number	Description	Approximate Sq Ft
00350	Modules	11,310
00351	Modules	10,940
00352	Modules	14,660
00353	Modules	11,060
00359	Sprung Structure	5,000
00360	Process Support Building	12,767
00370	MDB Lighting	528
00371	Trailer - Medical	960

Facility Number	Description	Approximate Sq Ft
00372	Mask Storage Facility	560
00373	Trailer – Office	900
00376	Fire Water Pump House	1,575
00378	Ice House & Conex	600
00380	Entry Control Facility	1,252
00381	Personnel and Maintenance Building	6,878
00382	Laboratory	7,748
00384	Container Handling Building	40,740
00385	Maintenance Support Building	1,200
00386	Non-toxic Maintenance Area	17,600
00389	Process & Utility Building	23,925
00390	Admin Support Building	7,530
00391	Protocol & Environmental Complex	5,018
00395	Equipment Storage	2,940
	Total:	185,691

The LUCs for the UMCDF specify that they shall not be used for the following purposes:

- a) Residential use of any type;
- b) Agricultural use of any type;
- c) Child care facilities and recreational uses where children may be present, including playgrounds; and nursing home or assisted living facilities; and
- d) Educational facilities for children/young adults in grades kindergarten through 12.

3.1.2 Igloos

In the area leaving Army control, UMCD and UMCDF had RCRA permitted igloos for the storage of agent related waste in J-Block. The J-Block storage facility igloos (also called magazines, bunkers, or storage units) were constructed in 1941. Each has interior dimensions of 81 feet in length, 26 feet in width and 13 feet in height. All of the magazines are arch-earth-covered and were originally built for the purpose of sheltering and containing conventional weapons. The J-Block igloos were only used to store agent related waste such as, decontamination liquid, personal protective equipment, and absorbent material. Agent related munitions and bulk containers were not stored in J-Block igloos. The pertinent J-Block igloos are (See Map 2 in Appendix A for locations; note LUCs apply to the building and 7 feet in front of the building):

1735-1736: J-Block Road A
1750-1752: J-Block Road B
1765-1767: J-Block Road C
1780-1782: J-Block Road D
1808-1810: J-Block Road F

The LUCs specify that these J-Block igloos shall not be used for the following purposes:

- a) Residential use of any type;
- b) Agricultural use of any type;
- c) Child care facilities and recreational uses where children may be present, including playgrounds; and nursing home or assisted living facilities; and
- d) Educational facilities for children/young adults in grades kindergarten through 12.

3.1.3 Southwest Area Buildings

Building 203 facility is located in the southwestern part of the installation. The north end was permitted for storage of containerized wastes generated from non-agent related support activities of UMCD. It was permitted to store RCRA waste for one year pending transport to offsite facilities for treatment and/or disposal. Building 203 is a one story building built in 1942 and is wood framed construction, with a metal roof and siding, and a concrete floor. It measures 180' by 480' totaling 86,400 sq ft.

Building 115, the vehicle maintenance shop, was located in the southwest part of the installation. It was demolished in 2015 with just the foundation remaining. Building 115 was a one-story metal building built in 1942, with a metal roof and siding, and a concrete floor. It measured 60' by 300' totaling 18,000 sq ft. Building 115 was used for light maintenance operations of vehicles. It had two satellite accumulation areas for storage of wastes associated with vehicle operations including a parts washer, recycling systems for used antifreeze, used oil and oil filters.

The following LUCs apply to buildings 115 and 203: Building 115 and 203 shall not be used for the following purposes:

- a) Residential use of any type;
- b) Agricultural use of any type;
- c) Child care facilities and recreational uses where children may be present, including playgrounds; and nursing home or assisted living facilities; and
- d) Educational facilities for children/young adults in grades kindergarten through 12.

3.2 CERCLA Site Descriptions

The UMCD CERCLA sites include:

- a) Site 24 Explosive Washout Lagoon Groundwater Contamination.
- b) Site 34 The Active Landfill (closed).
- c) Site 39 The Quality Function Range.
- d) Site 47 The Deactivation Furnace.

3.2.1 Site 24, Explosive Washout Lagoon (EWL) Groundwater Contamination

There are no updates to the following information, it is included as it impacts CDA property. From the 1950s to 1965, explosives, contaminated sludge, and liquid wastes generated at the UMCD

Washout Plant were discharged and allowed to collect in unlined lagoons and infiltrate into the soil and groundwater at the South Lagoon Area, resulting in contamination of Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and 2,4,6-Trinitrotoluene (TNT). The Army initiated a Remedial Investigation (RI) in 1987 and the ROD was signed in 1994 (U.S. Army 1994a).

The source of the groundwater contamination is located on the ORARNG parcel. The selected remedy for the contaminated soil source included excavation of the soils and treatment via composting from June 1994 to May 1997 in accordance with the ROD for Umatilla Depot Activity Explosives Washout Lagoons Soils Operable Unit (U.S. Army 1992). The U.S. Environmental Protection Agency (EPA) approved the *Remedial Action Report Explosives Washout Lagoons, Soils Operable Unit* that closed out the soil portion of the remedy.

The ROD identified pump and treat as the selected remedy for treatment of groundwater contamination. The contaminated groundwater remediation infrastructure, a pump and treat facility with extraction wells, was constructed in 1995 and brought online in 1996 to remove explosives from the groundwater. Map 3 in Appendix A shows the location of the plume and associated equipment.

The original extraction and injection system, constructed in 1995, included three extraction wells (EW-1, EW-3, and EW-4) capable of a combined pumping rate at 1,300 gallons per minute (gpm), a centralized treatment plant rated at 1,500 gpm consisting of four 20,000-pound granular activated carbon (GAC) filters, and four infiltration fields (IF-L, IF-1, IF-2, and IF-3). This original system began operation in January 1997. The approved design is presented in the three volume *95% Remedial Design Submittal Contaminated Groundwater Remediation Explosives Washout Lagoons Umatilla Depot Activity, Hermiston Oregon*. In 2012, the remedy was expanded to include new extraction well EW-6 in the eastern plume, which will be transferring to the CDA.

The extraction and treatment system operated continuously (except for periodic maintenance and occasional unplanned down time) from 1997 until February 2009, during which time approximately 1,300 pounds of contaminant were removed in the treatment system. In 2009, the system began operating under a pulse-pumping scheme to evaluate whether cycling the extraction off and on could increase system efficiency. Pulse-pumping was found to be ineffective at increasing contaminant recovery rates. Groundwater extraction was temporarily suspended in 2009 in order to perform field testing of an alternative *in-situ* bioremediation remedy in the center part of the plume in the ORARNG parcel.

As of late 2013, most of the extraction and treatment capacity is being used to remedy the eastern part of the plume which is on property slated for transfer to the CDA. During 2014, the treatment plant processed approximately 336 million gallons of explosives contaminated groundwater through EW-6 which operated at approximately 700 gpm. In 2015, groundwater was extracted through EW-4 and EW-6. Approximately 210 million gallons of explosives-contaminated groundwater was treated in 2015. Periodic shut-downs took place to allow for bioremediation field testing. All treated groundwater was returned to the aquifer through the infiltration fields IF-2 and IF-3.

On September 28, 2016 the Army requested EPA's approval of Army's demonstration that the groundwater remedial action (RA) for the eastern plume is operating properly and successfully (OPS) under CERCLA Section 120(h)(3)(B) (U.S. Army 2016). On November 7, 2016 the EPA concurred with the Army's request and issued an OPS determination. The groundwater remediation on the CDA parcel of the property will continue after the property has been transferred to the CDA and until such time that the remediation criteria for RDX are achieved. Upon transfer out of Federal ownership, LUCs will be recorded on 437.34 acres in the CDA area with an EES and deed restrictions will be put in place to:

- a) Allow Army access to the extraction and monitoring wells;
- b) To protect the wells, piping, and other associated materials or equipment;
- c) To prevent access to groundwater and disturbance of the groundwater plume.

These restrictions will be maintained until the ground water cleanup levels of 2.1 µg/L RDX groundwater RA objective are met or the site is determined not to pose an unacceptable threat to human health or the environment (U.S. Army BRAC 2016).

The following operations and uses are prohibited on the Property:

- a) Residential use of any type.
- b) Agricultural use of any type.
- c) Child care facilities and recreational uses where children may be present, including playgrounds; and nursing home or assisted living facilities.
- d) Educational facilities for children/young adults in grades kindergarten through 12.
- e) Neither withdrawal of groundwater nor any activity that may interfere with the groundwater remedy is allowed within the EWL Groundwater Pump and Treat Area.

3.2.2 Site 34, Active Landfill (Closed)

The former Landfill is a 17.49-acre solid waste disposal area located in the northeastern portion of UMCD, approximately one-half mile east of the topographic feature known as Coyote Coulee, north of D-Block (see Map 4 in Appendix A). Although known as the Active Landfill to distinguish from other disposal areas, this landfill was closed in 1997. The disposal area of this landfill consisted of a depression approximately 50 feet deep, which was a former gravel pit. Materials disposed at the site include garbage, demolition debris, asbestos from brake linings, dried sludge from the sewage treatment plant, possibly ash from the Deactivation Furnace, and dried sludge that contained explosive residuals.

The Army operated the landfill from 1968 to 1997. ODEQ issued a landfill permit to the Army in 1979, and the permit was renewed in 1982. Municipal wastes from the UMCD facility, including debris generated by maintenance such as clearing and renovation activities, were disposed of at the site and covered by soil on a weekly schedule. The peak work force at UMCD existed when the landfill was first opened. During the Vietnam Conflict, approximately 1,000 people were employed at UMCD. However, by 1970 the work force began to decline, and by 1987 the work force had fallen to 3 military and 250 civilian employees. The landfill ceased receiving municipal waste on October 3, 1993, but continued to receive treated soil from remediation of the

Deactivation Furnace Operable Unit (OU), Miscellaneous Sites OU, and the Ammunition Demolition Activity OU.

An RI was conducted in 1992, with groundwater sampling activities performed at 10 adjacent monitoring wells. Analyses performed on the groundwater samples include: Target Analyte List inorganics (which includes metals, non-metallic elements, and cyanide), volatile organic compounds, semi-volatile organic compounds, pesticides, PCBs, explosive constituents, and nitrate/nitrite. The RI results found elevated nitrate/nitrite and selenium levels, which are believed to be unrelated to landfill activities.

The ROD selected “No Action” as the remedy for the Active Landfill OU. This selection was based on information generated during the RI, which indicated that the OU did not pose an unacceptable threat to human health and/or the environment. Under a future residential land use scenario, the potential carcinogenic risks and non-carcinogenic hazard quotient due to ingestion of groundwater at the Active Landfill OU were 5×10^{-5} and 2.0, respectively.

The Landfill was capped and closed in accordance with ODEQ Solid Waste Regulations in November 1997. In August 2000 the existing operating permit was reissued as a solid waste disposal closure permit.

Groundwater monitoring of the landfill was initiated in October 1996 and continued until 2010. The monitoring was to determine if releases from the landfill contents were evident and could impact groundwater quality. Monitoring was conducted in accordance with the Environmental Monitoring Plan approved by ODEQ in July 1997 and updated and approved in February 2007. With the exception of selenium, the results from the sampling have been compared to the Table 1, 2, and 3 values from the Oregon Administrative Rules (OAR), Department of Environmental Quality 340 Groundwater Quality Protection (OAR 340-040). For selenium, the results have been compared to a risk-based level of 50 µg/L established by the ODEQ Cleanup Department in January 2003.

ODEQ terminated the landfill Permit, No. 320, in a letter on August 12, 2011 and transferred the site to the Environmental Cleanup Program. Post-closure requirements required groundwater sampling to continue for four years after closure if no evidence of a release has been detected, and for the monitoring well network to be maintained for 10 years after the date of closure. The groundwater monitoring was implemented at all 12 landfill wells for selenium, total dissolved solids. Five of the 12 wells, which were used for Oregon’s solid waste landfill permit compliance, also had sampling requirements for anions and cations, total metals, and volatile organic compounds.

The landfill was capped and closed in November 1997, in accordance with ODEQ Solid Waste Regulations. Four signs have been installed around the Landfill to help ensure protection from vehicular traffic. Monitoring wells were sampled quarterly until January 2004, then semi-annually up until the last sampling round was conducted in November 2010. The last sampling results indicated exceedances of water quality criteria for nitrate, selenium, and total dissolved solids

(TDS) at one well. These parameters are national secondary drinking water criteria¹. Selenium and TDS were not elevated at sampled down gradient wells, only at cross-gradient and up-gradient wells. Nitrate concentrations exceeded the applicable standards in most permit-required compliance wells, as they have during the entire record of monitoring. Elevated nitrate and selenium concentrations are considered regionally elevated and are not associated with any landfill release.

As a condition of closure, the landfill will not be adversely disturbed in perpetuity. The Response Action Outcome were to minimize contact with landfill waste through installation of the low-permeability cap, and to ensure the landfill did not serve as a source for groundwater contamination, which would be determined by monitoring for at least four years after closure. The ODEQ agreed to terminate Solid Waste Permit No. 320 in a letter on August 12, 2011.

The Army completed an ESD in May 2020 to modify the remedy selected in the 1993 ROD. The ESD was prepared to document significant changes to the “No Action” remedy selected in the ROD for the Active Landfill OU. That remedy decision was based on information generated during the Remedial Investigation (RI), which indicated that, subject to certain precautionary measures, the OU did not pose an unacceptable threat to human health and/or the environment. The ROD acknowledged that closure of the Active Landfill OU would be accomplished in accordance with State of Oregon requirements, including capping, followed by groundwater monitoring and post-closure care. LUCs were not a component of the remedy but are now being required under the ESD in order to limit land use to activities that do not disturb the integrity of the cap. The LUCs documented in the ESD prohibit excavation of any kind (i.e., digging, drilling, or any other excavation or disturbance of the land surface or subsurface). It changes to the remedy for the Active Landfill OU from “No Action” to “No Further Action with Land Use Controls.”

3.2.3 Site 39, Quality Assurance Function Range

The 635.68-acres QA Function Range is located north of the northern security fence of UMCD (see Map 5 in Appendix A). While operational during the 1940s through the mid-1970s, Site 39 was the location of a former QA function range used for testing of conventional munitions, weapons and related materials, such as test flares, photo flash grenades, illumination and smoke canisters, and mines. The types of operations that took place at various locations throughout Site 39 were to test, rework, burn, disassemble, and disposal by demolition of the materials listed above. No chemical munitions were tested or used on the QA Function Range.

A 1990 Remedial Investigation/Feasibility Study (RI/FS) for UMCD identified Study Site 39 as an area with potential munitions areas of concern. In 1996, surface clearance of munitions and explosives of concern (MEC) took place in the areas that were identified in the 1990 RI/FS. In 1999, an engineering evaluation/cost analysis was conducted to characterize the presence, nature and distribution of the MEC below the ground surface. Anomalies discovered during this effort were investigated, and the potential for MEC existence verified. Based on its investigations, the Army determined that MEC potentially existed on approximately 176 acres within the Site 39 area.

¹ Secondary drinking water regulations are considered to pose less health risk than a primary Contaminate of Concern.

In May 2005, a ROD was issued for the QA Function Range. The ROD defined the selected remedy and remedial objectives of the QA Function Range. The selected remedy required that the 107 acres associated with the Rifle Range Area and the 68 acres associated with the Test Pit Area undergo MEC clearance to a depth of two (2) feet, and the one acre associated with the Test Pad Area to be cleared to a depth of 6 feet. The remedy also required the soil around the three former QA function test pads, where high-density geophysical anomalies were found to be sifted to a depth of two feet. In addition, the ROD required LUC be implemented at the time of property transfer for the approximately 176 acres that was cleared. With respect to the remaining acreage of Site 39, the Army and EPA determined that No Further Action (NFA) was necessary for investigation and clearance, but that LUCs would be needed if the property ever transferred out of Army control.

For the approximately 176 acres that were cleared, the ROD states,

Deed notification will be required to inform re-users that the property was used for testing of munitions. Cleanup was completed to meet the expected future agricultural use. This notification will meet the requirements for State of Oregon real property deed notifications. This information will be included in the transfer documents and recorded at the time of transfer. (ROD, p. 50)

Note that the reasonably anticipated future uses include agricultural use, incidental residential use (e.g., farm house and barns/utility buildings), and limited recreational use, such as hiking and hunting (ROD, p. 16).

For LUCs on the approximately 460 acres that is not suspected of containing MEC, the ROD states,

If the property is transferred, implement a deed notification to make future property owners aware of the past history of the property including its proximity to the former quality assurance function range and the results or previous investigations of the property known as Site 39. (ROD, p. 51)

The remedial actions as selected in the ROD began in October 2008, and were completed in November 2009. During the remediation, three items were discovered and determined to be material documented as explosive hazard. They were:

- a) Fragments containing TNT from M2 personnel mines.
- b) A ground single flare, M52A1.
- c) Ground signal smoke, M129A1, candle and fin assembly. These identified items were detonated. In total, 860 pounds of cultural debris and 388 pounds of munition debris were certified as material documented as safe. These items were collected and recycled. The soil was screened around them. All clean-up actions have been completed for this site, and the required LUCs will be implemented at the time of property transfer.

The ROD lists the acreage for the two LUC areas as approximately 176 acres for the clearance area and 460 acres for the area not suspected of containing munitions. The Army has simplified

the LUC restricted area in an MFR completed in May 2021 (the 176 acres) from the three distinct clearance areas to one larger area to which the land use restrictions will apply (see Map 5 in Appendix A). The new land-use restriction area, which comprises only so much acreage as to cover the three response areas contiguously totals 259 acres. The remaining area of the QA Function Range, which is subject to a notice LUC, totals 376.68 acres.

The Army tested munitions within the 259-acre parcel from the 1940s to the mid-1970s, and during a remedial action performed in 2008 and 2009 the Army removed MEC from this parcel. The removal of MEC ranged from depths of 2 to 6 feet below ground surface. As a result, only the following uses are appropriate for the 259-acre parcel of QA Function Range:

- a) Agricultural use and incidental residential use (e.g., farm house and barns/utility buildings); and
- b) Limited recreational use (e.g., hiking and hunting)

As documented in the May 2021 MFR, the 259 acres of QA Function Range, shall not be used for residential use other than residential use incidental to agricultural use.

Additionally, notice will be given at the time of transfer, and required in all future transfers, of the 376.7-acre parcel of QA Function Range, that this parcel is not suspected of containing MEC but is adjacent to an area that was used for munitions testing. Prior to any tenancy, occupation or use of QA Function Range, the Owner shall also inform the lessee, tenant, occupant or user of this notice. If the Owner should become aware of any item that is suspected MEC on the QA Function Range or anywhere else on the Property, the Owner shall immediately stop any intrusive or ground-disturbing work in the area or in any adjacent areas and shall not attempt to disturb, remove or destroy the suspected MEC, but shall immediately notify the Umatilla County Sheriff at telephone number (541) 966-3600 or by dialing 9-1-1, so that appropriate explosive ordnance disposal personnel can be dispatched to address such suspected MEC. The Owner shall further inform each lessee, tenant, occupant or user of QA Function Range to immediately bring any suspected MEC they find to the attention of the Owner.

3.2.4 Site 47 Deactivation Furnace

The 15.97-acre Deactivation Furnace is located in the southwest corner of the UMCD installation (see Map 6 in Appendix A). This OU consists of the two former buildings associated with the deactivation Furnace and the surrounding 8-acre area deemed contaminated from air pollution that accumulated during the life of the Deactivation Furnace. The Deactivation Furnace operated from 1950s to November 1988. It was used for the routine incineration of unserviceable or obsolete conventional munitions up to 50 caliber, Class A and B explosives (reactive wastes such as detonators) and Class C Explosives (non-reactive wastes such as small arms ammunition). During its operation, these munitions were fed into the retort through a conveyor belt system with operating temperatures between 1,200 to 1,500 degrees Fahrenheit (F). During the first 10 years of operation, exhaust gases were uncontrolled. In 1960, an addition of cyclone and baghouse air pollution control system was installed. This system was then replaced sometime between 1975 and 1980, and was used until the furnace was deactivated. The residual ash from the baghouse

was temporarily stored on site in a RCRA permitted hazardous waste storage facility, and then disposed of offsite at a RCRA permitted hazardous waste disposal facility.

This OU was first included in the Army's Installation Restoration Program in 1978, which resulted in limited soil and groundwater sampling conducted in 1981. That investigation determined that there were high concentrations of lead, zinc, copper, and cadmium within the furnace soils. Following that investigation, a RCRA Facility Assessment was completed in 1987. An initial RI was completed in 1988, results showed that the Deactivation Furnace soils had high bulk metal concentrations. Due to these results, a RCRA closure plan was developed, amended and approved in October 1990. This closure plan required that the furnace, related structures and contaminated soils from the furnace air emissions be removed. In July 1992, the actual furnace within the building was decontaminated, removed and disposed off-site during the RCRA closure actions as required by the RCRA closure plan. Two associated buildings remained, along with a 2,500 square feet concrete pad that surrounds the buildings.

Additional investigations were initiated in 1990, with additional soil investigations completed in 1991 and 1992. The final FS completed in 1992 determined that 12 metals exceeded soil background levels. The metals were: antimony, arsenic, barium, beryllium, cadmium, copper, lead, nickel, potassium, silver, thallium, and zinc. These metals showed increased soil concentrations downwind of the Deactivation Furnace. The RCRA Closure plan was amended to include actions related to the furnace equipment (completed in July 1992), and the larger soil contamination was addressed through the CERCLA process, resulting in an FS and subsequently a ROD.

The Army prepared an ESD in May 2020 to describe changes in the reasonably foreseeable future land use upon which the remediation levels were based and to describe the proposed LUC that will be implemented as part of the remedy given the change. These changes were made to the ROD with the purpose to maintain the protection of human health and the environment.

At the time the ROD was signed, the reasonably anticipated future land use was residential and determined that the 500 milligrams per kilogram (mg/kg) lead cleanup levels for soils was protective of residential uses and would allow for unlimited use/unrestricted exposure (UU/UE). The current lead cleanup level protective of residential use is 200 mg/kg and the reasonably anticipated re-use has also changed to industrial. Under the new use exposure scenario, the prior soil excavations address any unacceptable risk under the reasonable anticipated future exposure pathway but a LUC is required to prohibit residential reuse.

After the completion of the Tier II actions in 1997, the site-wide mean for lead is 174.3 and the upper 95th percentile confidence limit is 229.7 ppm, these confirmatory samples are combination of results from the Tier I and II efforts. This remediation is protective of the reasonably anticipated future reuse, which is industrial.

The revised remedy is described and evaluated within this section. There are two principal differences between the original ROD and the ESD. The first difference involves the reasonably anticipated future exposure pathway as a basis for the cleanup levels. The revised remedy is based on updated reasonably expected future land use for the OU. The second difference involves the

incorporation of LUCs to maintain the industrial reuse limitations. Remediation consisted of demolition of the facility and treatment of contaminated soil. The soil remediation was complete in April 1998 and is protective of human health and the environment.

The new industrial use cleanup level for lead in soils is 400 mg/kg. The prior excavation activities met this standard. In order to remain protective in the future and after transfer, LUCs are required. LUCs are necessary to prevent human exposure to concentrations of lead in soil that do not allow for UU/UE. LUCs will be implemented through a restriction in the deed and the recording of the EES prior to transfer of the site out of Federal control. The following LUCs will be placed on the Property:

Residential and Agricultural Use Restriction: The Deactivation OU area shall not be used for the following purposes:

- a) Residential use of any type.
- b) Agricultural (food crop) use of any type.
- c) Child Care Facilities and nursing home or assisted living facilities.
- d) Educational facilities for children/young adults in grades K through 12.

LUCs will be maintained for the entire site boundaries, until the concentrations of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure. The Army will be responsible for implementing, maintaining, reporting on, and enforcing the LUCs. Although the Army may later transfer these procedural responsibilities to another party by contract, property transfer agreement, or through other means, the Army shall retain ultimate responsibility for remedy integrity.

4.0 CERFA CATEGORY UPDATE

The ECP condition types for the sites discussed in this ECP Update Report have not changed and remain a Type 4. The below discussion on ECP condition types is for information purposes only.

The ASTM D6008 establishes the criteria for evaluation within the ECP (ASTM 2005). ASTM D5746 establishes the criteria for assigning the ECP Types (1 through 7) following evaluations (ASTM 2002). Both are intended to comply with Community Environmental Response Facilitation Act (CERFA Pub. L. 102-426) and guidance established thereunder. CERFA directs federal agencies to evaluate all property on which federal government operations will be terminated to identify uncontaminated parcels. The ECP and supporting documentation summarizing CERFA designations for land at UMCD were prepared in ECP Reports dated December 2010 and September 2013. ECP acreages were updated in September 2013, September 2014, May 2017. The Army's ECP Reports were provided to EPA and ODEQ.

Within the area to transfer, all property sites are designated as Types 1, 2, 3, or 4 which includes sites that are either uncontaminated (Type 1) or contaminated with petroleum which is not regulated under CERCLA (Type 2), have had a release of a hazardous substance but response action is not required (Type 3), or had a release of a hazardous substances but no further cleanup is required (Type 4). Currently, the sixty-foot area along the western and northern edge of the

Ammunition Disposal Area (ADA) is a Type 5, and therefore, this will not transfer until remediation is complete and it becomes a condition type 4. There are no other Type 5, 6, or 7 areas on transferring property. Table 3 lists the condition types and associated acreage for the remaining acreage at UMCD. Map 1 in Appendix A illustrates the property transferring to ODOT and the CDA and illustrates the ECP sites.

With respect to the Type 1 parcels, as required in 42 U.S.C. § 9620(h)(4)(B), EPA has concurred with Army’s uncontaminated determination for the 8,946.67 acres to transfer. This concurrence was documented in and based on a report prepared by the U.S. Army in consultation with EPA and ODEQ titled, *U.S. Army Environmental Center Community Environmental Response Facilitation Act (CERFA) Report, Umatilla Depot Activity, Hermiston, Oregon* (The Earth Technology Corporation 1994) and the July 2017 ECP update.

Table 3
Umatilla Chemical Depot CERFA Designations

Properties Conditions	Definition	Total Acreage of Property to Transfer
Type 1	Areas where no release or disposal of hazardous substances or petroleum products above <i>de minimis</i> quantities has occurred, and to which there has been no migration of such substances from adjacent areas. Note: this includes the 109.27 acres going to the FHA for Highway 82 and the interchange of Highways 82 and 84.	8,862.57
Type 2	Areas in which release or disposal of petroleum products above <i>de minimis</i> quantities has occurred.	8.62
Type 3	Areas in which release, disposal, or migration of hazardous substances has occurred, but in concentrations that do not require removal or other remedial response.	105.53
Type 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.	534.74
Type 5	Areas in which release, disposal, or migration of hazardous substances has occurred, and removal or remedial actions are underway, but not all required actions have been taken (this is the 60’ strip on the north and west edge of ADA which will not transfer until remediation is complete).	
Type 6	Areas in which release, disposal, or migration of hazardous substances has occurred but required remedial actions have not been implemented.	0.00
Type 7	Areas that are unevaluated or require additional evaluation.	0.00
TOTAL		9,511.46

5.0 CONCLUSIONS

As stated in Section 1.0, the purpose of this ECP update is to provide information/documentation of the various remedies at UMCD that have changed for the 9,511.46 acres that are transferring in

2022. Specifically, LUCs are documented in an MFR, OPS, ESDs, and PMRs as a component of the remedy. The LUCs will be enforceable through LUCRD, the deed Environmental Protection Provisions, and an EES which will be recorded with in Morrow and Umatilla counties at the time of transfer. All the property to be transferred has a condition type of 1, 2, 3, or 4. There is a 60 foot strip along the north and west portion of the northwest corner of the property that is associated with the ADA site where remediation is not complete, and therefore is categorized as condition type 5. This area will not transfer until the property has been remediated and is designated as at least a type 4. CERFA Categories

- Type 1: 8,862.57
- Type 2: 8.62 acres
- Type 3: 105.53 acres
- Type 4: 534.74 acres

In addition to the CERCLA sites, there are RCRA sites that were identified in the RCRA permit closure process as requiring LUCs. These sites are the UMCDF, 14 igloos, and buildings 115 and 203.

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APPENDIX A

MAPS

Map 2: RCRA and CERCLA Sites



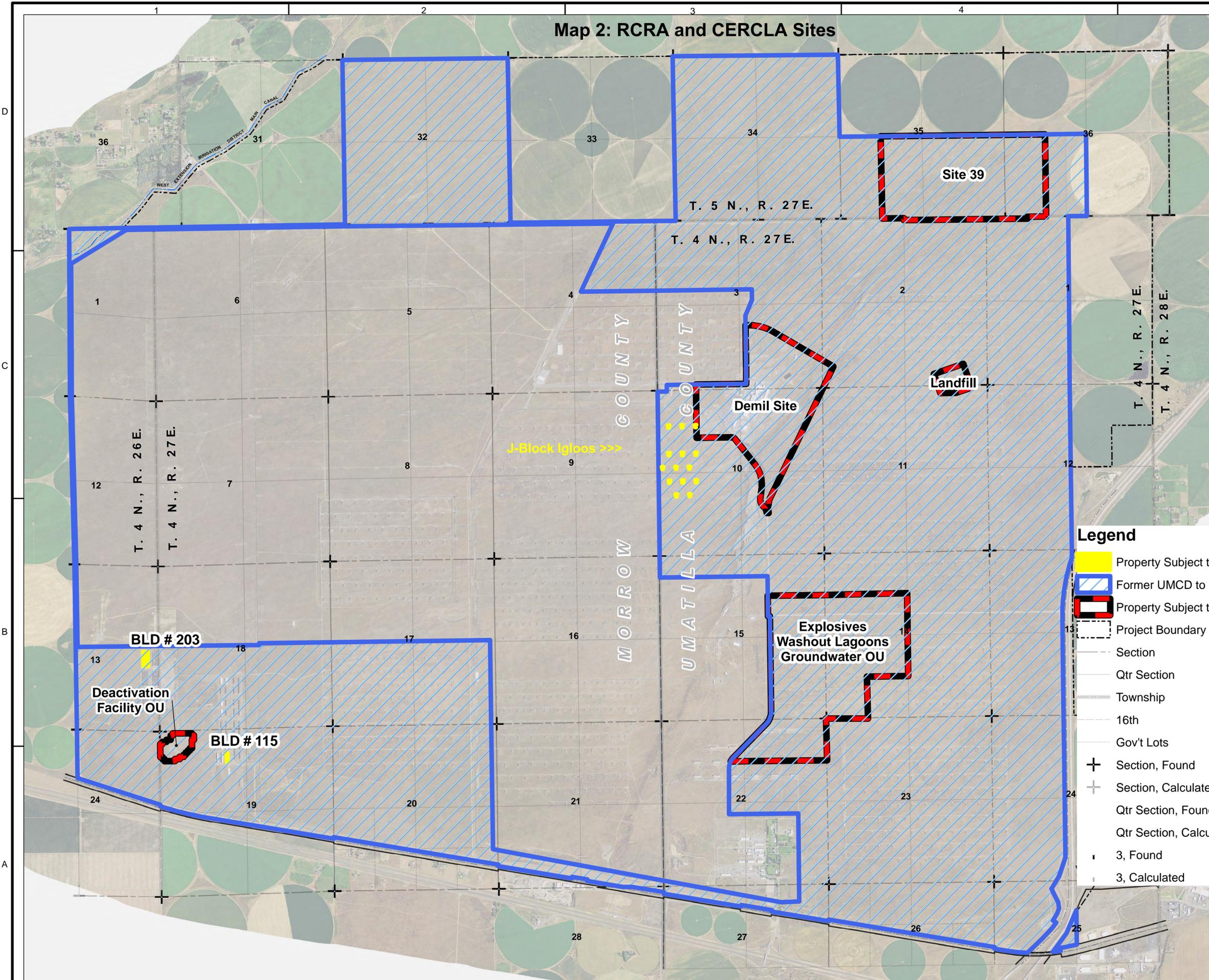
US Army Corps of Engineers
Seattle District

Symbol	Description	Date	Appr.	Symbol	Description

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Drawn by:	File #: SEE SE-RE-TR
Checked by:	Rev:
Prepared by:	U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON
	REGULATORY DIVISION RESPONSE ACTIONS CADASTRAL

LAND MANAGEMENT MAP
UMATILLA CHEMICAL DEPOT
CDA RESTRICTIONS
UMATILLA & MORROW OREGON

Plate number:
X-100
Sheet 1 of 1

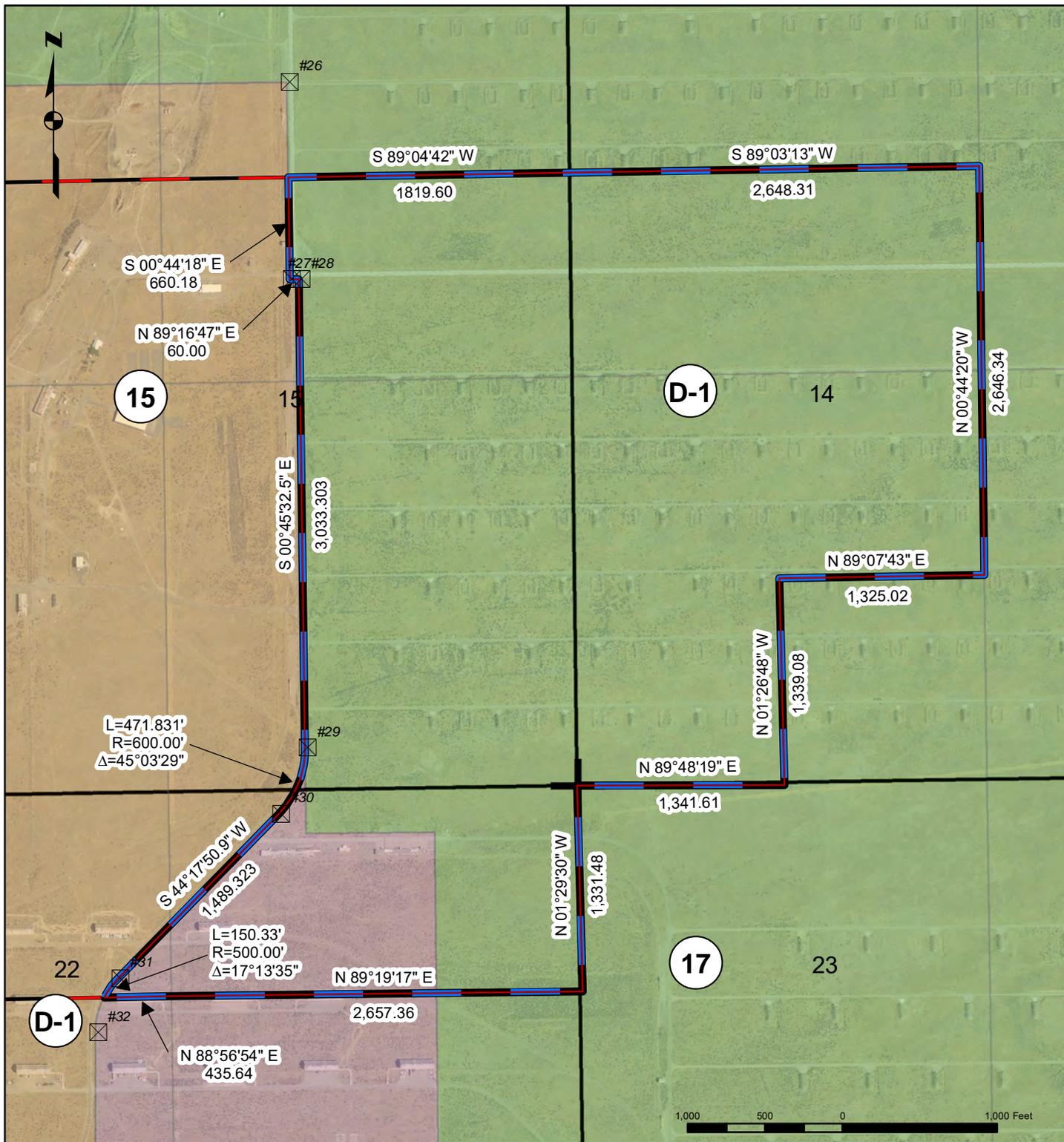


Legend

- Property Subject to Land Use Restrictions
- Former UMCD to be transferred out of federal control
- Property Subject to Land Use Restrictions
- Project Boundary
- Section
- Qtr Section
- Township
- 16th
- Gov't Lots
- Section, Found
- Section, Calculated
- Qtr Section, Found
- Qtr Section, Calculated
- 3, Found
- 3, Calculated



Map 3(a): Groundwater LUC Area

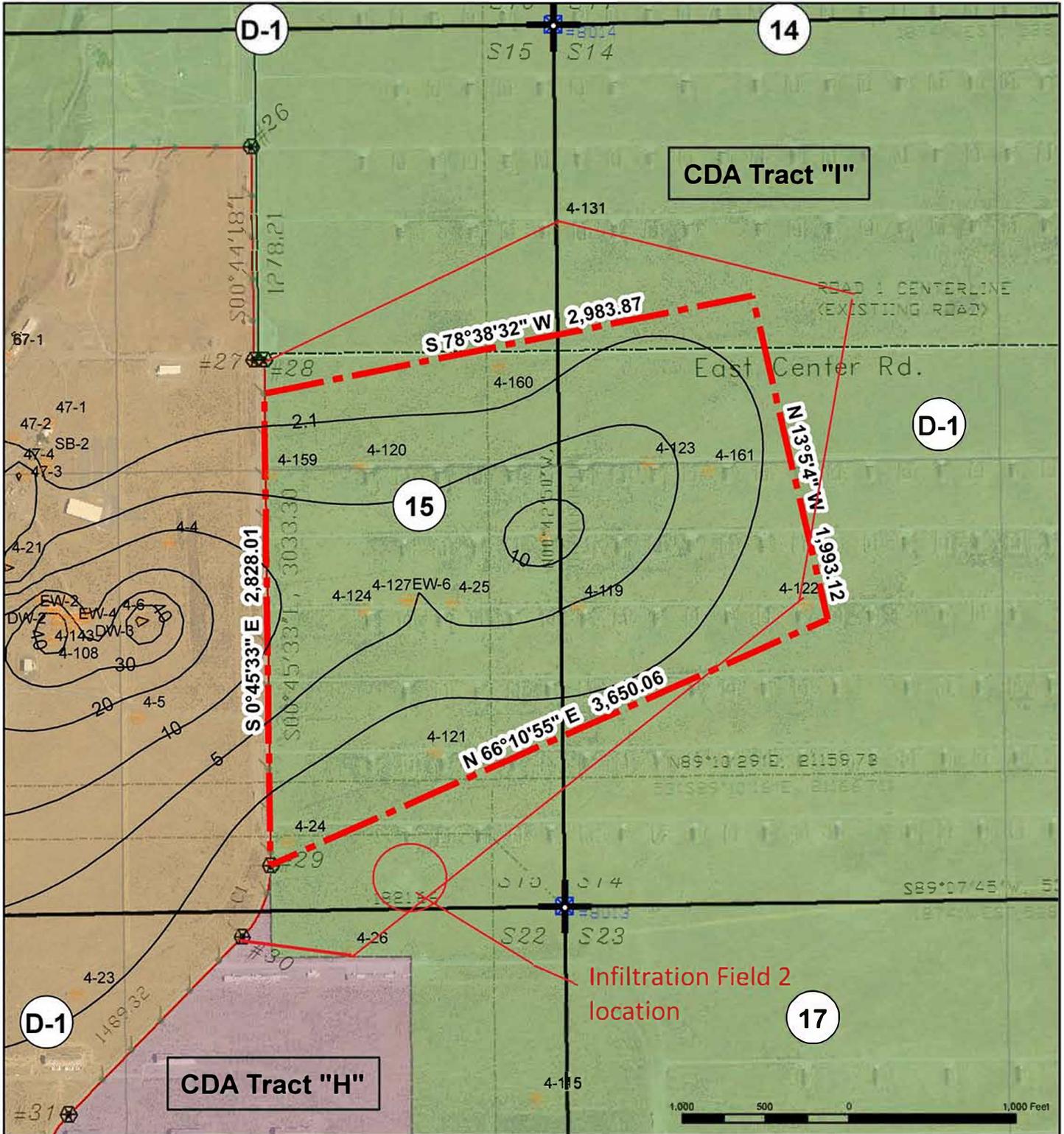


Legend

- NGB Coverage
- CDA Coverage
- dod_rpi_land_parcel_area
- Section
- Qtr Section
- Township
- 16th
- Gov't Lots



Map 3b: Groundwater Plume, Wells, and Infiltration Gallery



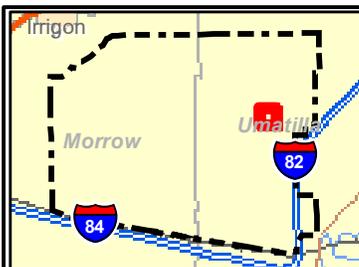
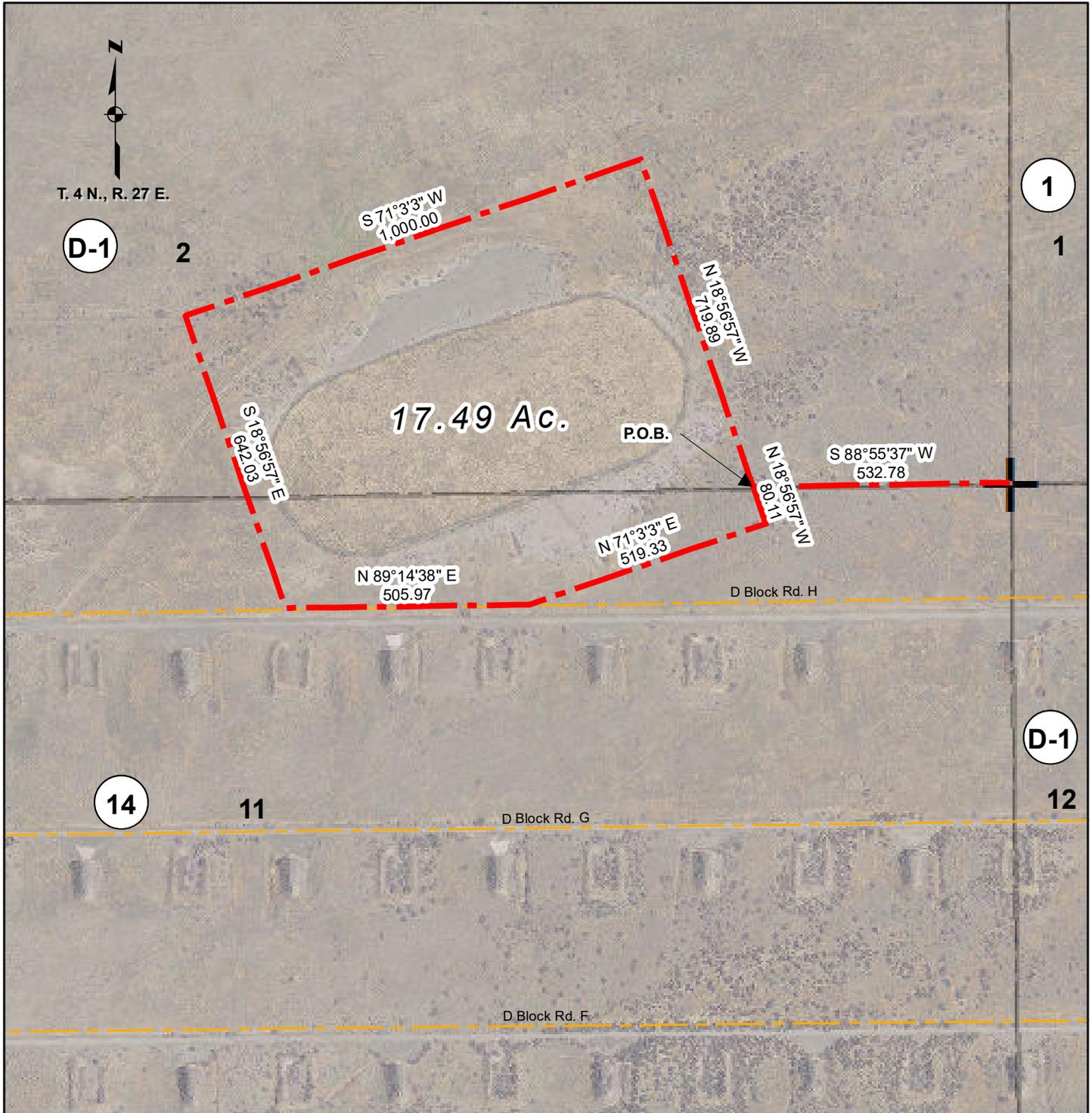
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- UMCD Well Locations
- Groundwater Contours
- dod_rpi_land_parcel_area





Map: 4 Active Landfill



Legend

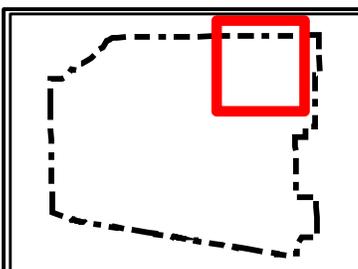
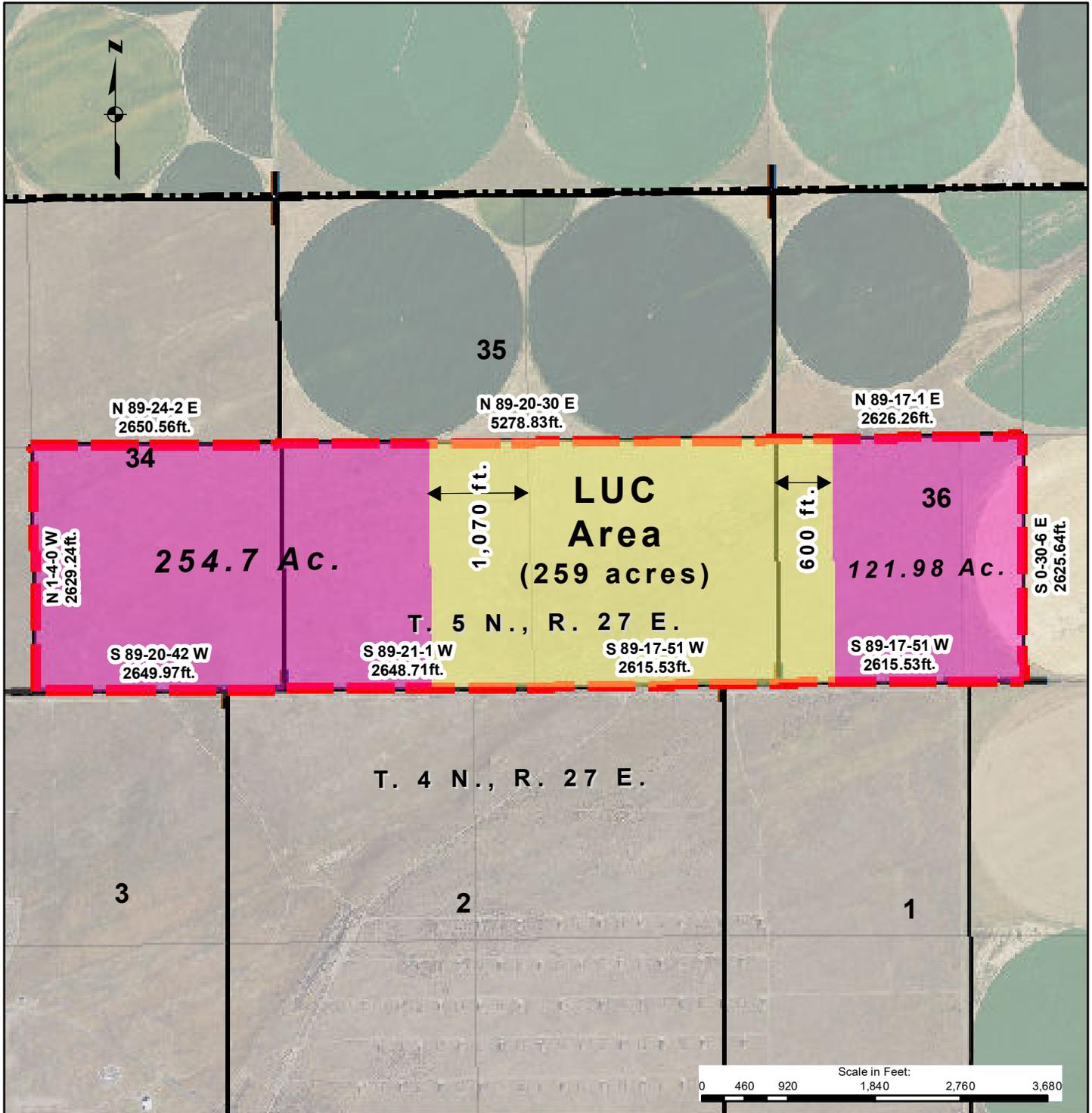
- Section
- Qtr Section
- Township
- 16th
- Gov't Lots



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Map 5: Quality Assurance Function Range



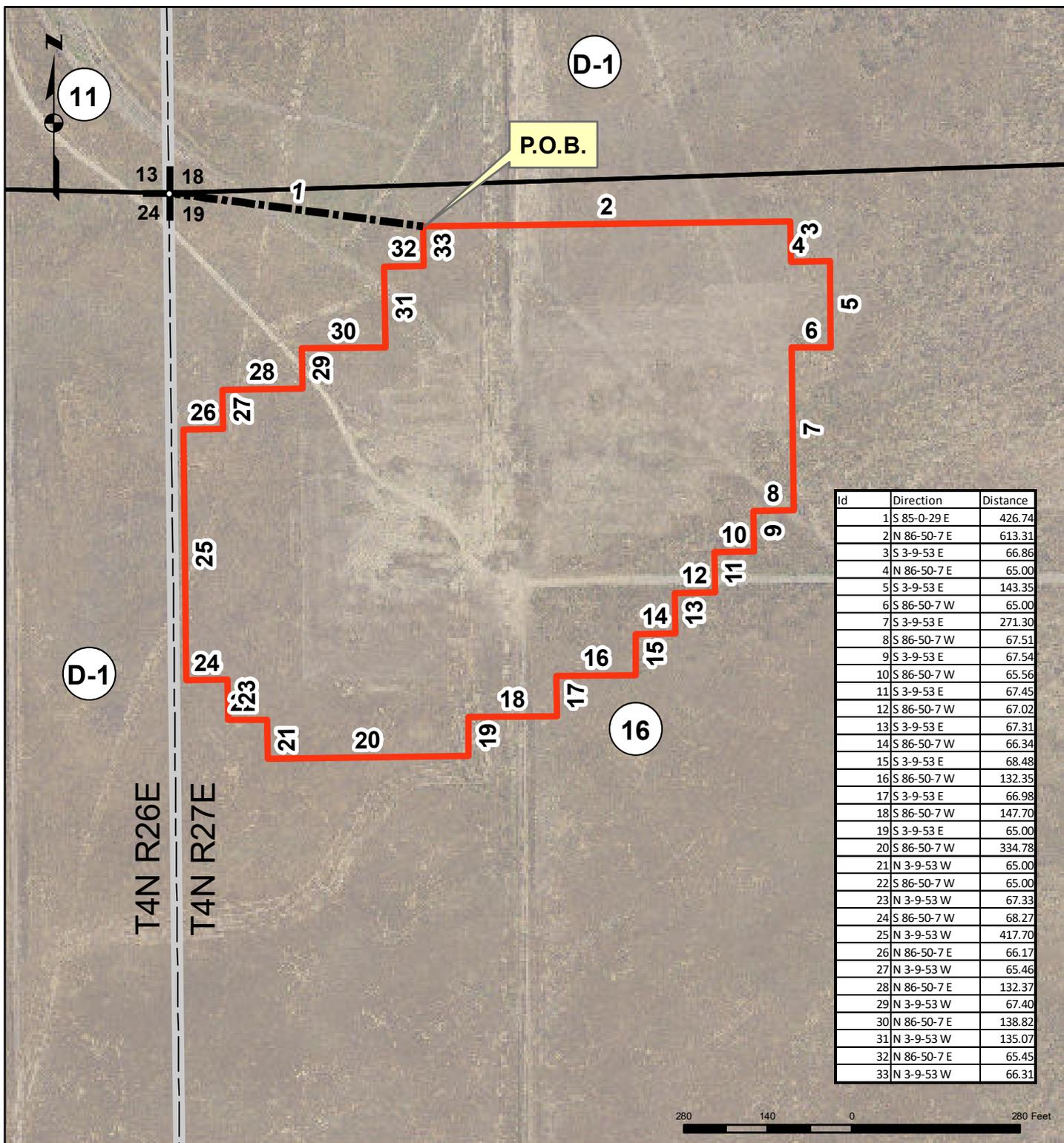
Legend

- Site 39 Restriction: Agricultural and Limited Recreational Use
- Site 39 Notice: Area Adjacent to Former MEC Testing
- Site 39 Boundary
- Project_Boundary
- Section
- Qtr Section
- Township
- 16th
- Gov't Lots

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Map 6: Deactivation Furnace



Id	Direction	Distance
1	S 85-0-29 E	426.74
2	N 86-50-7 E	613.31
3	S 3-9-53 E	66.86
4	N 86-50-7 E	65.00
5	S 3-9-53 E	143.35
6	S 86-50-7 W	65.00
7	S 3-9-53 E	271.30
8	S 86-50-7 W	67.51
9	S 3-9-53 E	67.54
10	S 86-50-7 W	65.56
11	S 3-9-53 E	67.45
12	S 86-50-7 W	67.02
13	S 3-9-53 E	67.31
14	S 86-50-7 W	66.34
15	S 3-9-53 E	68.48
16	S 86-50-7 W	132.35
17	S 3-9-53 E	66.98
18	S 86-50-7 W	147.70
19	S 3-9-53 E	65.00
20	S 86-50-7 W	334.78
21	N 3-9-53 W	65.00
22	S 86-50-7 W	65.00
23	N 3-9-53 W	67.33
24	S 86-50-7 W	68.27
25	N 3-9-53 W	417.70
26	N 86-50-7 E	66.17
27	N 3-9-53 W	65.46
28	N 86-50-7 E	132.37
29	N 3-9-53 W	67.40
30	N 86-50-7 E	138.82
31	N 3-9-53 W	135.07
32	N 86-50-7 E	65.45
33	N 3-9-53 W	66.31



Legend

- Section Tie
- Section
- LUC Deactivation Furnace
- Qtr Section
- Township
- 16th
- Gov't Lots

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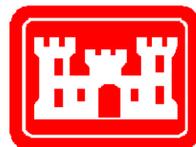
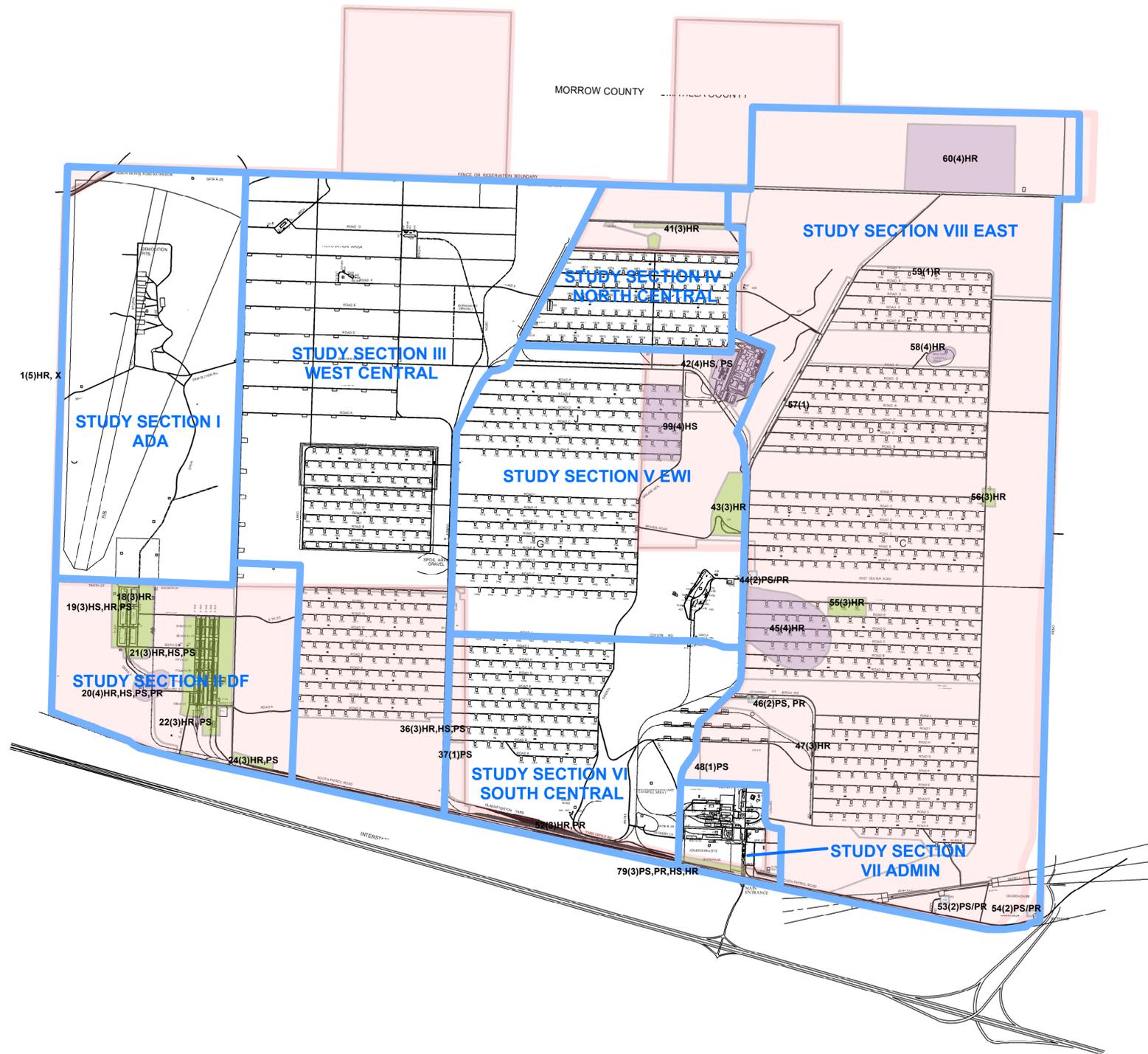
Map 7: Environmental Condition of Property Category Code Map



Legend

- Study Sections
- Condition of Property**
- 1 No Documented or Known Release (NDKR)
- 2 Release or Disposal of Petroleum Only
- 3 Release below action levels
- 4 Remediation of historic release has occurred
- 5 Remedial actions are underway
- 6 Release above action levels no remediation underway
- 7 Unevaluated
- CDA Property

ECP Condition Type	Total Acreage at UMCD	Definition	Map Color
1	8,971.84	Areas in which no release or disposal of hazardous substances or petroleum products above de minimis quantities has occurred and to which there has been no migration of such substances from adjacent areas	Clear
2	8.62	Areas in which release or disposal of petroleum products above de minimis quantities has occurred.	Blue
3	105.53	Area in which release, disposal, or migration of hazardous substances has occurred, but in concentrations that do not require removal or other remedial response.	Green
4	534.74	Area 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	Purple
5	28.07	Areas in which release, disposal, or migration of hazardous substances has occurred, and removal or other remedial actions are underway, but all required actions have not been taken	Yellow
6	0	Areas in which release, disposal, or migration of hazardous substances has occurred, but required remedial actions have not been implemented.	Orange
7	0	Areas that have not been evaluated or that require additional evaluation.	Red



Appendix A
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UMATILLA CHEMICAL DEPOT Umatilla, Oregon		Environmental Condition of Property Category Codes for Columbia Development Authority Property	
LAST REVISION: 10/29/2020		MAP AUTHOR: SCJ	DEPT: Geospatial