

2019 Annual Site Inspection

Defense Depot Memphis, Tennessee
U.S. EPA I.D. Number TN4210020570

Revision 1
June 2020



Defense Depot Memphis, Tennessee

Main Installation

2019 Annual Site Inspection Report

Pursuant to the Land Use Controls Implementation Plan (LUCIP) dated February 2004 (Appendix C of Rev. 1 Final Main Installation Remedial Design dated July 2004) for the former Defense Depot Memphis, Tennessee (DDMT) - Main Installation (MI), a visual inspection of the MI was conducted by HDR, Inc., on 23 July 2019.

The MI contains approximately 567 acres with open storage areas, warehouses, former military family housing, and outdoor recreational areas. All of the MI property has been transferred for reuse through public benefit and economic development conveyances.

The majority of the MI is zoned for light industrial use. Residential reuse is allowed at the former family housing area and the former administration building area (Parcels 1 and 2 in Functional Unit [FU] 6). Per the deed from the Department of Interior to the City of Memphis for the golf course area, only recreational reuse is allowed at the golf course area (FU2).

[Table 1](#) Summary of Land Use Controls and Monitoring Requirements, [Figure 1](#) Land Use Restrictions Map and [Figure 2](#) Groundwater Use Restrictions from the MI LUCIP are attached.

A summary of the land use restrictions is as follows:

- No residential land use or other child-occupied facilities including daycare on the MI (except Parcels 1 and 2 of FU6).
- No production/consumptive use of groundwater or drilling groundwater wells on the MI.
- Notice of Land Use Restrictions (NLUR) filed with Shelby County Register of Deeds (SCROD). Leases and deeds for MI property must include the Land Use Controls (LUC) and Environmental Protection Provisions (EPP).

Verification that land use restrictions are being accomplished and LUCs remain effective

- Verify that boundary fence surrounding golf course area in FU2 remains intact.
 - Visual inspection conducted on 23 July 2019. No deficiencies or required repairs were identified.
 - Interviewed Vince Alfonso of Memphis Athletic Ministries (MAM), which manages the golf course (24 July 2019). He confirmed that MAM was responsible for maintaining the fence around the golf course. MAM's grounds maintenance program occurs daily throughout the year and includes checking the fence for damage. No damage to the fence has been observed since the previous inspection in July 2018. When damage is identified, repairs usually occur within 24 hours.
- Verify that no residential housing/development or child daycare activities are occurring at the site (except Parcels 1 and 2 of FU6).
 - Visual inspection conducted on 23 July 2019. No deficiencies identified.
 - On 16 July 2019, conducted an on-line search of the Shelby County Office of Planning and Development Land Use Controls Section website

(<http://shelbycountyttn.gov/924/Zoning-Subdivision>) and the zoning atlas (<http://mapgis.memphistn.gov/Applications/DPDGov>). The search confirmed that the MI is zoned Industrial District – EMP for Employment as per the Memphis and Shelby County Unified Development Code – The Zoning Code and Development Regulations for the City of Memphis and Unincorporated Shelby County approved by the Shelby County Board of Commissioners as Ordinance No. 397 on August 9, 2010, and the Memphis City Council as Ordinance No. 5367 on August 10, 2010 and as amended on October 18, 2016. There are two exceptions: Parcels 1 and 2 in FU 6 which are zoned Residential, and the golf course area in FU2, which is zoned Recreational.

- Interviewed the following property owners/managers: Ms. Anita Bunn of Colliers International – the property management firm for the Memphis Depot Industrial Park (16 July 2019); Mr. Greg Ward of Barnhart Crane (16 July 2019); Mr. Robert Keskey, President of Supply Chain Solutions LLC (24 July 2019); and Mr. Randy Richardson, Executive Director of Port of Memphis and Vice President of Port and Industrial Property for the Memphis/Shelby County Economic Development Growth Engine (16 July 2019). All confirmed that no residential housing/developments or child daycare activities occur at their property on the site.

Ms. Bunn was unaware of any tenants conducting summer youth work programs in 2019.

Mr. Greg Ward noted that Barnhart Crane's Memphis Depot Industrial Park location did not participate in the Landmark Youth Training program in 2019. He also noted that the garden on the Barnhart Crane property has been inactive since June 2018.

Mr. Vince Alfonso noted that MAM's programs involve about 30 children aged 8 – 17 participating in sports programs at the golf course area. For 13 Saturdays in September through November and for 13 Saturdays in March through May, about 30 children are at the golf course area for 3 hours. For 10 weeks in June through August about 30 children are at the golf course area about 8 hours per day, 5 days per week.

- Obtained current tenant list from Colliers International on 16 July 2019. No residential housing/development or child daycare activities are listed at the Memphis Depot Industrial Park.
- Conducted a visual inspection of Alpha Omega Veterans Services (AO) garden on 23 July 2019. As noted in the 2018 Annual Site Inspection Report, AO maintains a garden of less than one (1) acre on the south end of the AO property. The garden program provides classes to AO clients and residents (all adults) on organic gardening and nutritional cooking. The residents maintain the garden with assistance from local master gardeners as part of the AO rehabilitation program. The visual inspection confirmed that the garden is within the AO property.
- Verify that no groundwater wells have been installed at the site (except for monitoring and injection wells that were installed as part of the remedy) and that no production/consumptive use of groundwater is occurring.
 - Visual inspection conducted on 23 July 2019. No deficiencies identified.
 - Interviewed Mr. Greg Parker, Memphis/Shelby County Health Department Pollution Control Division, Water Quality Control on 16 July 2019. Mr. Parker confirmed that

no permits have been issued for construction of consumptive use/production groundwater wells at the MI. Re-contacted Mr. Parker on 22 January 2020 regarding a comment from Ms. Lloyd (U. S. Environmental Protection Agency). Mr. Parker stated that no consumptive use well permits have been issued for the area within 0.5 mile of the MI property boundary.

He also confirmed that the groundwater well construction permit process remains the same. His office must review and approve all groundwater well construction permits.

- Interviewed the following property owners/managers: Ms. Anita Bunn of Colliers International – the property management firm for the Memphis Depot Industrial Park (16 July 2019); Mr. Greg Ward of Barnhart Crane (16 July 2019); Mr. Robert Keskey, President of Supply Chain Solutions LLC (24 July 2019); and Mr. Randy Richardson, Executive Director of Port of Memphis and Vice President of Port and Industrial Property for the Memphis/Shelby County Economic Development Growth Engine (16 July 2019). All confirmed no groundwater extraction wells have been installed at their property on the site and no production/consumptive use of groundwater is occurring.
- Verify that the NLUR is filed with the SCROD and that leases and deeds for property on the MI include the LUC and EPP.
 - On 16 July 2019, searched SCROD website (<http://register.shelby.tn.us>) and confirmed the NLUR for the MI, Instrument 050144108, was recorded on 26 January 2005.
 - On 16 July 2019, conducted a search of SCROD website (<http://register.shelby.tn.us>) to view and confirm that MI deeds include Land Use Controls and Environmental Protection Provisions. The following Instruments are on file:
 - Deed from Army to DRC – Instrument 02097802 recorded June 12, 2002, includes the EPP but not the LUC
 - Deed from Army to DRC – Instrument 06080130 recorded May 19, 2006, specifically states the LUC/EPP
 - Deed from Army to DRC – Instrument 11036907 recorded April 13, 2011, specifically states the LUC/EPP
 - Deed from Army to City of Memphis (COM)/Police Department – Instrument 02065495 recorded April 15, 2002, specifically includes the CERCLA notice but not the LUC/EPP
 - Deed from Department of Interior to COM Golf Course – Instrument 06086149 re-recorded as Instrument 06168071 recorded October 12, 2006, includes the EPP but not the LUC
 - Deed from DRC to Memphis Depot Association/Mayfield Properties LP – Instrument 11076360 recorded August 5, 2011, references Instruments 050144108 and 11036907 as Permitted Encumbrances
 - Deed from DRC to Barnhart Crane – Instrument 10016009 recorded February 18, 2010, references Instruments 050144108 and 11036907 under Permitted Encumbrances

- Deed from DRC to Barnhart Crane – Instrument 11056745 recorded June 10, 2011, references Instruments 050144108 and 11036907 under Permitted Encumbrances
- Deed from Varma to Barnhart Crane – Instrument 13079834 recorded July 2, 2013, references Instruments 05014108 and 11036907 under Permitted Encumbrances
- Deed from DRC to Supply Chain Solutions – Instrument 17004420 recorded January 13, 2017, references Instruments 05014108 and 11036907 under Permitted Encumbrances
- On 16 July 2019, a search of the SCROD website for leases/deeds from Barnhart Crane to 1701 Dunn Road LLC identified a quit claim deed Instrument 14054556 and a lease Instrument 14054557, both recorded 28 March 2014. Neither includes the LUC/EPP. The lease references the quit claim deed that references the deed from Depot Redevelopment Corporation to Barnhart Crane Instrument 11056745 that references Instrument 05014108 and 11036907 under Permitted Encumbrances.
- On 16 July 2019, a search of the SCROD website for leases/deeds from Barnhart Crane to 2163 Airways Blvd LLC, identified a quit claim deed Instrument 14054552 and a lease Instrument 14054553, both recorded 28 March 2014. Neither includes the LUC/EPP. The lease references the quit claim deed that references the deed from the Department of Army to the Depot Redevelopment Corporation Instrument 02097802 that includes the EPP but not the LUC.
- On 16 July 2019, a search of the SCROD website for leases/deeds from Mayfield Properties to Memphis Depot TIC LLC/DP 107 LLC identified a quit claim deed Instrument 18038535, which references Instruments 05014108 and 11036907 under Permitted Encumbrances.
- Interviewed the following property owners/managers: Ms. Anita Bunn of Colliers International – the property management firm for the Memphis Depot Industrial Park (16 July 2019); Mr. Greg Ward of Barnhart Crane (16 July 2019); Mr. Robert Keskey, President of Supply Chain Solutions LLC (24 July 2019); and Mr. Randy Richardson, Executive Director of Port of Memphis and Vice President of Port and Industrial Property for the Memphis/Shelby County Economic Development Growth Engine (16 July 2019). Barnhart Crane, Supply Chain Solutions LLC and Memphis/Shelby County Economic Development Growth Engine representatives stated no deeds or leases have been issued since the 2018 inspection. Ms. Bunn of Colliers International stated leases issued since the 2018 inspection reference the LUC and EPP.

Description of any deficiency or violation of the land use restrictions

Found that leases entered into prior to July 2018 do not consistently include the LUC/EPP but generally reference a deed that references a prior deed that references the NLUR and the DA to DRC deed that specifically states the LUC/EPP. Property owners and managers state that new leases reference the LUC/EPP.

No further deficiencies or violations identified.

Description of any proposed measures or corrective actions taken to remedy the deficiency or violation

No proposed measures or corrective actions are necessary.

Certification Statement

I, the undersigned, do document that the inspection was performed as indicated above, and that the above information is true and correct to the best of my knowledge, information, and belief.

Date: 4 June 2020

Name/Title: Thomas Holmes/Project Manager

Organization: HDR Inc.

Signature: 

Completed annual inspection forms shall be sent within thirty (30) days of the inspection to:

HQ Department of the Army
Assistant Chief of Staff for Installation Management
Attn: BRAC Division (DAIM-ODB) (James C. Foster, PM)
2530 Crystal Drive (Taylor Bldg), Room 5000
Arlington, VA 22202-3940

U. S. Environmental Protection Agency, Region 4
Caroline Freeman, Chief
Restoration & Sustainability Branch, Superfund Division
61 Forsyth Street, SW
Atlanta, GA 30303

Tennessee Department of Environment and Conservation
Division of Remediation
Memphis Field Office
Attn: Jordan English
8383 Wolf Lake Drive
Bartlett, TN 38133-4199

Table 1

**Summary of Land Use Controls and Monitoring Requirements
From Main Installation Land Use Control Implementation Plan**

TABLE 1
SUMMARY OF LAND USE CONTROLS AND MONITORING REQUIREMENTS
ANNUAL SITE INSPECTION REPORT
Main Installation - Defense Depot Memphis, Tennessee

Type of control	Purposes of control	Duration	Implementation	Monitoring frequency/responsibility ¹	Affected area
1. Lease Restrictions A. Land Use B. Groundwater	A. Prevent residential use or daycare activities on property. B. Prevent production/ consumptive use of groundwater or drilling of groundwater wells.	The term of the Master Lease ending on August 31, 2052, or the term specified in any sublease.	Master Lease entered into by the Army and the DRC includes EPP. DRC subleases are required to include Master Lease EPP that restrict land use and groundwater use.	Site Inspection – Annual. The Army will verify adherence to the LUC. LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify with the DRC that all subleases contain required EPP.	All of the MI property, except Parcels 1 and 2 in FU6.
2. Deed Restrictions A. Land Use B. Groundwater	A. Prevent residential use or daycare activities on property. B. Prevent production/ consumptive use of groundwater or drilling of groundwater wells.	Until the concentration of hazardous substances in the soil and the groundwater have been reduced to levels that allow for unlimited exposure and unrestricted use.	Drafted by Army property disposal agent in accordance with Tennessee law and recorded at the Shelby County Register of Deeds office.	Site Inspection – Annual. The Army will verify adherence to the LUC. LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify information properly recorded at Shelby County Register of Deeds office(s).	All of the MI property except Parcels 1 and 2 in FU6.
3. Notice of Land Use Restriction A. Land Use B. Groundwater	A. Prevent residential use or daycare activities on property. B. Prevent production/ consumptive uses of groundwater or drilling of groundwater wells.	Until the concentration of hazardous substances in the soil and the groundwater have been reduced to levels that allow for unlimited exposure and unrestricted use.	Drafted by Army property disposal agent in accordance with Tennessee law and recorded at the Shelby County Register of Deeds office.	Site Inspection – Annual. The Army will verify adherence to the LUC. LUC verification – Every 5 years as part of the required remedy review under CERCLA . The Army will verify information properly recorded at Shelby County Register of Deeds office(s).	All of the MI property except Parcels 1 and 2 in FU6.
4. Zoning Restrictions	Allow only certain uses of the property per designation as a Light Industrial zoning district.	Until zoning district designation changes.	Zoning districts designated by City of Memphis and Shelby County LUC Board.	Site Inspection – Annual. The Army will verify adherence to the LUC. LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify with the City of Memphis and Shelby County the current zoning designation.	All of the MI property.

TABLE 1
SUMMARY OF LAND USE CONTROLS AND MONITORING REQUIREMENTS
ANNUAL SITE INSPECTION REPORT
Main Installation - Defense Depot Memphis, Tennessee

Type of control	Purposes of control	Duration	Implementation	Monitoring frequency/responsibility ¹	Affected area
5. Groundwater Well Restrictions	Prohibit installation of drinking water well within half-mile of the site and the off-site contaminated groundwater.	Until the site is no longer a Federal Superfund site, or MSCHD determines that the drilling of a well does not pose a threat to a local aquifer.	Groundwater Well Construction Code administered by MSCHD, Water Quality Branch.	Site Inspection – Annual. The Army will verify adherence to the LUC. LUC verification -- Every 5 years as part of the required remedy review under CERCLA. The Army will verify with the MSCHD on the implementation of its regulation.	All of the MI property except Parcels 1 and 2 in FU6.
6. Fence	Restrict public access to prevent unauthorized uses.	Until the concentration of hazardous substances in the soil and the groundwater have been reduced to levels that allow for unlimited exposure and unrestricted use.	Erected by the Army and maintained by the City of Memphis.	Site Inspection – Annual. The Army will verify adherence to the LUC. LUC verification -- Every 5 years as part of the required remedy review under CERCLA.	The golf course area located in FU2.

Notes

¹ Prior to transfer of any Depot property, the Army (or its representatives) will perform the monitoring. After transfer, the Army may arrange to have TDEC, the City of Memphis, or some independent third party representative conduct any required monitoring. [See Section 5 below].

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

DRC = Depot Redevelopment Corporation of Memphis and Shelby County

EPP = Environmental Protection Provision

FU = Functional Unit

LUC = Land Use Control

MI = Main Installation [of the Memphis Depot]

MSCHD = Memphis Shelby County Division of Health Services

TDEC = Tennessee Department of Environment and Conservation

Source: *Defense Distribution Center (Memphis) Main Installation Land Use Control Implementation Plan (LUCIP)*. CH2MHILL, 2004.

Figures 1 and 2

**Land Use and Groundwater Use Restrictions
From Main Installation Land Use Control Implementation Plan**

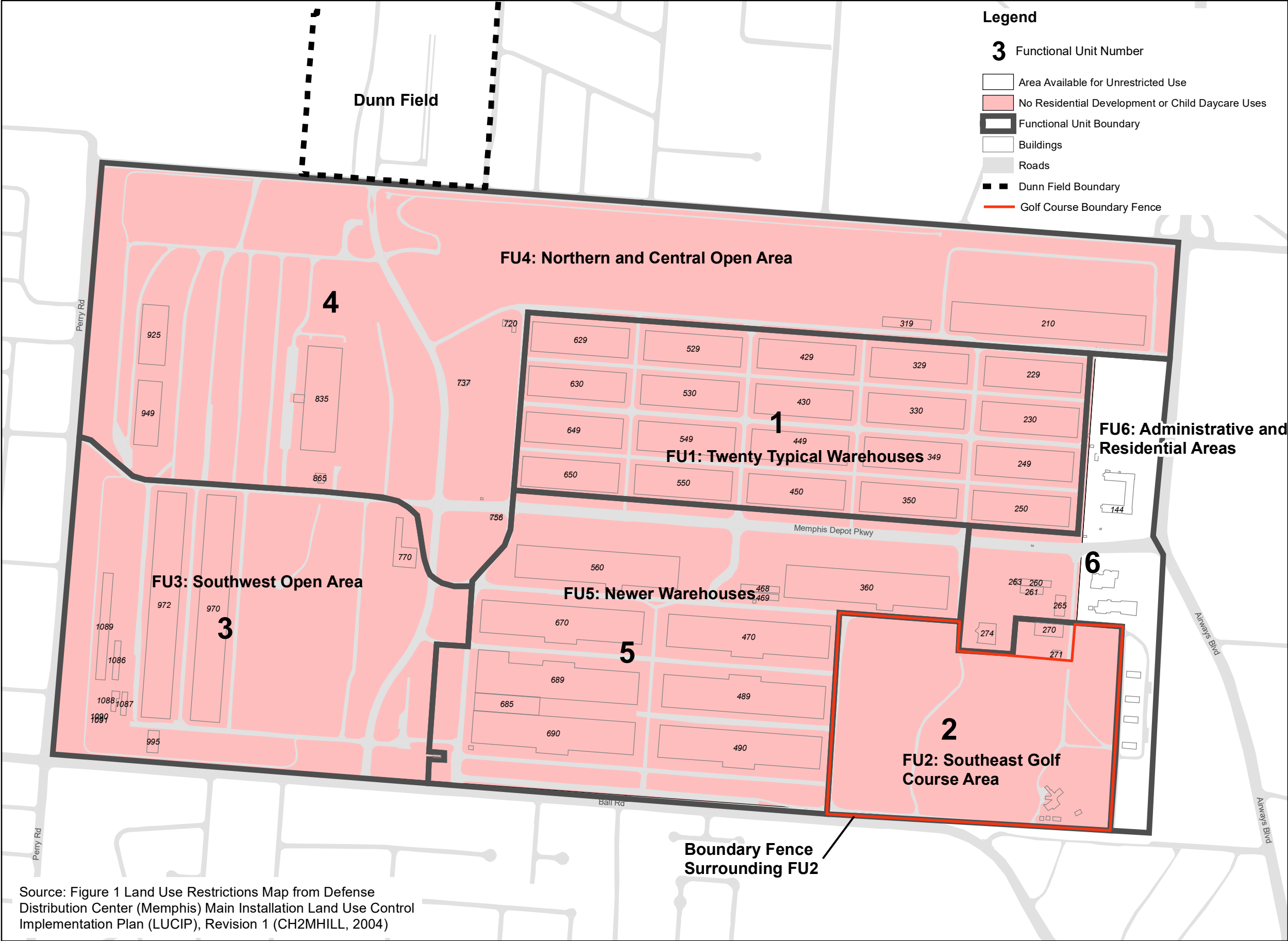
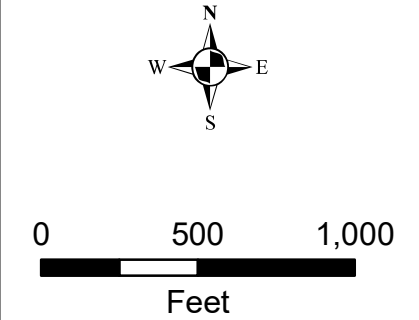


Figure 1

Land Use Restrictions Map

Annual Site Inspection Report

Main Installation
Defense Depot
Memphis, Tennessee



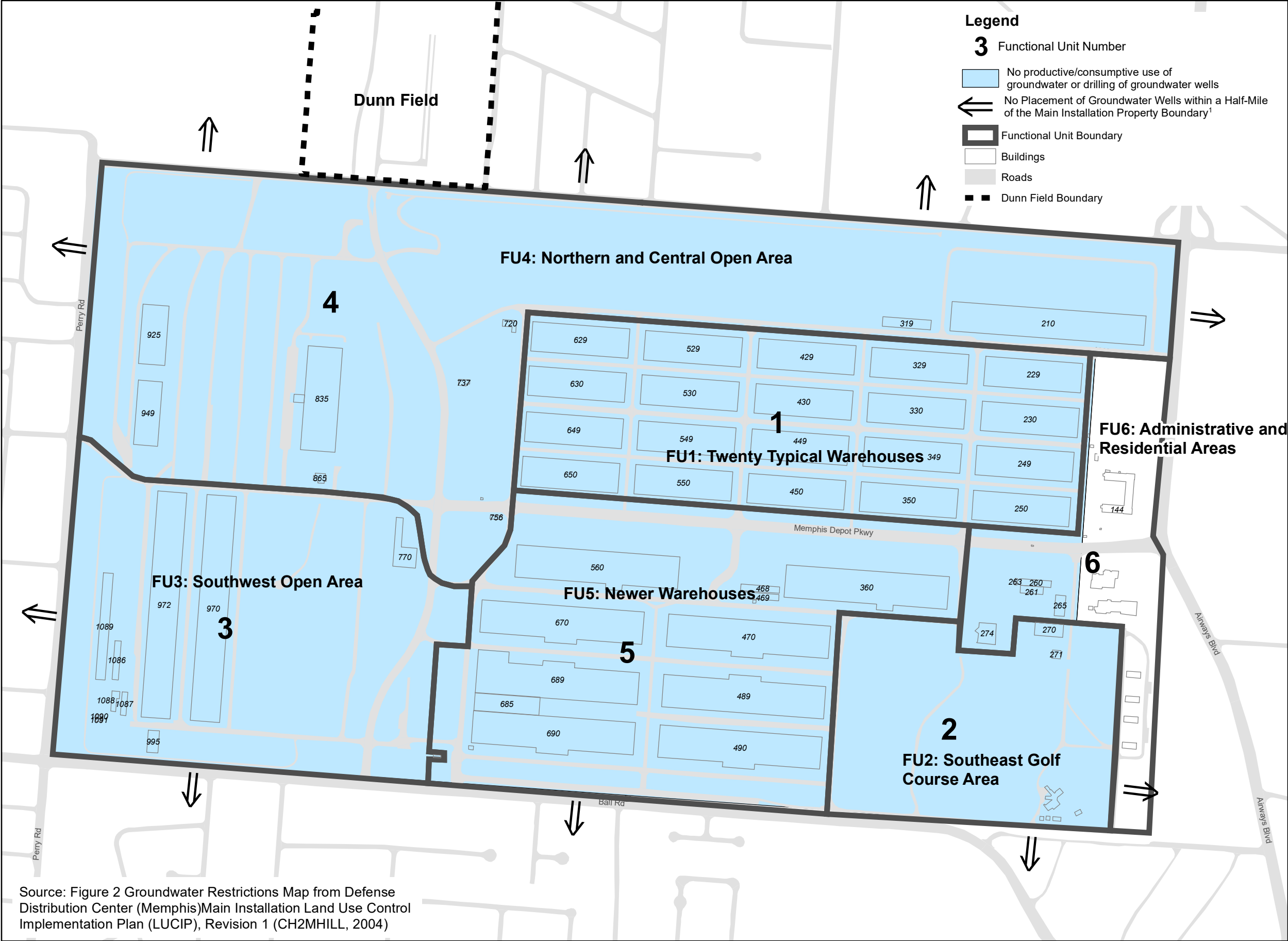


Figure 2

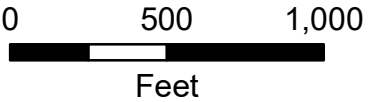
Groundwater Restrictions Map

Annual Site Inspection Report

Main Installation
Defense Depot
Memphis, Tennessee

Note:

1. Per Shelby County
*Rules and Regulations
of Wells.*



Projection: NAD 1927 StatePlane Tennessee
Units: Feet, Elevation Units: Feet, NAVD88

Date: 6/4/2020
Edition: Rev 0



Source: Figure 2 Groundwater Restrictions Map from Defense Distribution Center (Memphis)Main Installation Land Use Control Implementation Plan (LUCIP), Revision 1 (CH2MHILL, 2004)

Defense Depot Memphis, Tennessee

Dunn Field

2019 Annual Site Inspection Report

Pursuant to the Land Use Controls Implementation Plan (LUCIP) dated September 2008 (Appendix A of Rev. 1 Final Dunn Field Off-Depot Groundwater Remedial Design dated September 2008) for the former Defense Depot Memphis, Tennessee – Dunn Field (Memphis Depot), a visual inspection of property was conducted by HDR, Inc., on 23 July 2019.

Dunn Field is located across Dunn Avenue from the northwest quadrant of the Main Installation and covers 64 acres. The eastern portion of Dunn Field was historically used for storage of bauxite and fluorspar and was designated available for unrestricted use; this property was transferred for reuse in 2007; 39.35 acres were transferred to Dunn Field Business Park, LLC via competitive public sale and 1.6 acres were transferred to the City of Memphis via public benefit conveyance. The remaining 24.5 acres on the western side were used for bauxite storage and waste disposal; this area is still held by Army.

Dunn Field is undeveloped except for access roads, other paved areas and fencing. The only structure on Dunn Field is the former soil vapor extraction system equipment building in the western area. The LUCs apply only to the western area that is currently held by Army and approved for future transfer. [Table 1](#) Summary of Land Use Controls and Monitoring Requirements, [Figure 1](#) Land Use Restrictions and [Figure 2](#) Groundwater Use Restrictions from the Dunn Field LUCIP are attached.

The Dunn Field LUC protocol requiring denial of groundwater use or installation of groundwater wells within the sites is being enforced.

A summary of the land use restrictions is as follows:

- No residential land use or other child-occupied facilities including daycare in the Disposal Area/western portion of Dunn Field.
- No production/consumptive use of groundwater or drilling groundwater wells in contaminated groundwater associated with Dunn Field.

Verification that land use restrictions are being accomplished and LUCs remain effective

- Verify that no residential housing/development or child daycare activities are occurring in the Disposal Area/western portion of Dunn Field.
 - Visual inspection conducted on 23 July 2019. No structures or other development are present on the portion of Dunn Field subject to land use restrictions, except for the soil vapor extraction (SVE) equipment building installed for site remediation. SVE operations were halted in 2012 after remediation goals for Dunn Field were achieved. The building is used to store the SVE equipment for future use if necessary.
 - Access to Dunn Field is controlled by perimeter fence with locked gates. The 2018 inspection noted the fence's integrity could not be confirmed due to excessive vegetation growing on the fence. From December 2018 to January 2019, a local grounds maintenance company cleared the Dunn Field perimeter fence of

vegetation. A visual inspection conducted on 10 January 2019 found the perimeter fence with only minor damage in two places which did not require repair. Visual inspection of the Dunn Field property and perimeter fence conducted on 23 July 2019 confirmed the fence was in good condition and that unauthorized use of the property was not observed. The fence adequately prevents unauthorized entry.

- Verify that no groundwater wells have been installed at the site (except for wells that were installed as part of the remedy) and that no production/consumptive use of groundwater is occurring.
 - Visual inspection conducted on 23 July 2019. No deficiencies identified.
 - Interviewed Mr. Greg Parker, Memphis/Shelby County Health Department Pollution Control Division, Water Quality Control on 16 July 2019. Mr. Parker confirmed that no permits have been issued for construction of consumptive use/production groundwater wells at Dunn Field or within contaminated groundwater down gradient of Dunn Field.

Description of any deficiency or violation of the land use restrictions

No deficiencies or violations identified.

Description of any proposed measures or corrective actions taken to remedy the deficiency or violation

No proposed measures or corrective actions are necessary.

Description of whether the use restrictions and controls referenced in Column 1 of Table 1 were communicated in the deed(s)

No deed(s) issued to date.

Describe whether the owners and state and local agencies were notified of the use restrictions and controls affecting the property

State environmental agencies notified of use restrictions and controls via review/approval of the Rev. 1 Final Off-Depot Groundwater Remedial Design. The Notice of Land Use Restrictions was recorded on Thursday, 11 June 2009, in the Register of Deeds, Shelby County, TN; Document No. 09069308.

Certification Statement

I, the undersigned, do document that the inspection was performed as indicated above, and that the above information is true and correct to the best of my knowledge, information, and belief.

Date: 4 June 2020

Name/Title: Thomas Holmes/Project Manager

Organization: HDR Inc.

Signature:



Completed annual inspection forms shall be sent within thirty (30) days of the inspection to:

HQ Department of the Army
Assistant Chief of Staff for Installation Management
Attn: BRAC Division (DAIM-ODB) (James C. Foster, PM)
2530 Crystal Drive (Taylor Bldg), Room 5000
Arlington, VA 22202-3940

U. S. Environmental Protection Agency, Region 4
Caroline Freeman, Chief
Restoration & Sustainability Branch, Superfund Division
61 Forsyth Street, SW
Atlanta, GA 30303

Tennessee Department of Environment and Conservation
Division of Remediation
Memphis Field Office
Attn: Jordan English
8383 Wolf Lake Drive
Bartlett, TN 38133-4199

Table 1

**Summary of Land Use Controls and Monitoring Requirements
From Dunn Field Land Use Control Implementation Plan**

TABLE 1
SUMMARY OF LAND USE CONTROLS AND MONITORING REQUIREMENTS
ANNUAL SITE INSPECTION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Type of control	Purposes of control	Duration	Implementation	Monitoring frequency/responsibility ¹	Affected area
1. Deed and/or Lease Restrictions A. Land use B. Groundwater	A. Prevent residential use or other child-occupied facilities (including daycare) B. Prevent production/ consumptive use of groundwater or drilling of groundwater wells.	Until the concentration of hazardous substances in the soil and the groundwater have been reduced to levels that allow for unlimited exposure and unrestricted use.	Drafted by Army property disposal agent Deed recorded at the Shelby County Register of Deeds office.	A. Site Inspection/ LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify information properly recorded at Shelby County Register of Deeds office(s). B. Groundwater well verification – No less than annually the DLA or the Army (or its authorized representative) will conduct field inspection to ensure no production/consumptive use well(s) have been installed.	A. The Disposal Area/western portion of Dunn Field. B. The Disposal Area/western portion and the northern portion of the Northeast Open Area of Dunn Field.
2. Notice of Land Use Restriction A. Land Use B. Groundwater	A. Prevent residential use or other child-occupied facilities (including daycare) B. Prevent production/ consumptive uses of groundwater or drilling of groundwater wells.	Until the concentration of hazardous substances in the soil and the groundwater have been reduced to levels that allow for unlimited exposure and unrestricted use.	Drafted by Army property disposal agent in accordance with Tennessee law and recorded at the Shelby County Register of Deeds office.	A. Site Inspection/ LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify information properly recorded at Shelby County Register of Deeds office(s). B. Groundwater well verification – No less than annually the DLA or the Army (or its authorized representative) will conduct field inspection to ensure no production/consumptive use well(s) have been installed.	A. The Disposal Area/western portion of Dunn Field B. The Disposal Area/western portion and the northern portion of the Northeast Open Area of Dunn Field.
3. Zoning Restrictions	Allow only certain uses of the property per designation as Light Industrial zoning district. Not effective at preventing child-occupied uses including daycare, nursery school or schools K through 12.	Until zoning district designation changes.	Zoning districts designated by City of Memphis and Shelby County LUC Board.	Site Inspection/ LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify with the City of Memphis and Shelby County the current zoning designation.	All of the Dunn Field property (except the northeast area which has been sold to a private owner).

TABLE 1
SUMMARY OF LAND USE CONTROLS AND MONITORING REQUIREMENTS
ANNUAL SITE INSPECTION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Type of control	Purposes of control	Duration	Implementation	Monitoring frequency/responsibility ¹	Affected area
4. Groundwater Well Restrictions	Prohibit installation of drinking water well within half-mile of the site and the offsite contaminated groundwater.	Until the site is no longer a Federal Superfund site, or MSCHD determines that the drilling of a well does not pose a threat to a local aquifer.	Groundwater Well Construction Code administered by MSCHD, Water Quality Branch.	Site Inspection/ LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify with the MSCHD on the implementation of its regulation. Groundwater well verification – No less than annually the DLA or the Army (or its authorized representative) will conduct field inspection to ensure no production/consumptive use well(s) have been installed.	A. The Disposal Area/western portion and the northern portion of the Northeast Open Area of Dunn Field.
5. Fencing	Restrict public access to prevent unauthorized uses while the site is not regularly occupied.	Until transfer and the site is occupied on a regular basis, pending approval by the Army, EPA and TDEC.	Erected by the Army and is maintained by DLA prior to transfer.	Site Inspection/ LUC verification – Every 5 years as part of the required remedy review under CERCLA. The Army will verify that the fencing while present is in place and is being maintained.	All of the Dunn Field property (except the northeast area, which has been sold to a private owner).
6. Protocol	Restriction of groundwater use and denial of installation of groundwater wells within the site.	The Protocol will terminate and be superseded by the deed restriction upon property transference.	90 days after approval of the LUCIP.	Protocol will be provided to all personnel that are assigned to work on Dunn Field.	All of the Dunn Field property (except the northeast area, which has been sold to a private owner).

Notes

¹ Prior to transfer of any Memphis Depot property, the DLA or the Army (or its representatives) will perform the monitoring. After transfer, the Army may arrange to have TDEC, the City of Memphis, or some independent third party representative conduct any required monitoring. [See Section 5 below].

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

LUC = Land Use Control

DLA = Defense Logistics Agency

MSCHD = Memphis Shelby County Division of Health Services

EPA = US Environmental Protection Agency, Region 4

TDEC = Tennessee Department of Environment and Conservation

Source: Defense Distribution Center (Memphis) Dunn Field Land Use Control Implementation Plan (LUCIP). CH2MHILL, 2006.

Figures 1 and 2

**Land Use and Groundwater Use Restrictions
From Dunn Field Land Use Control Implementation Plan**

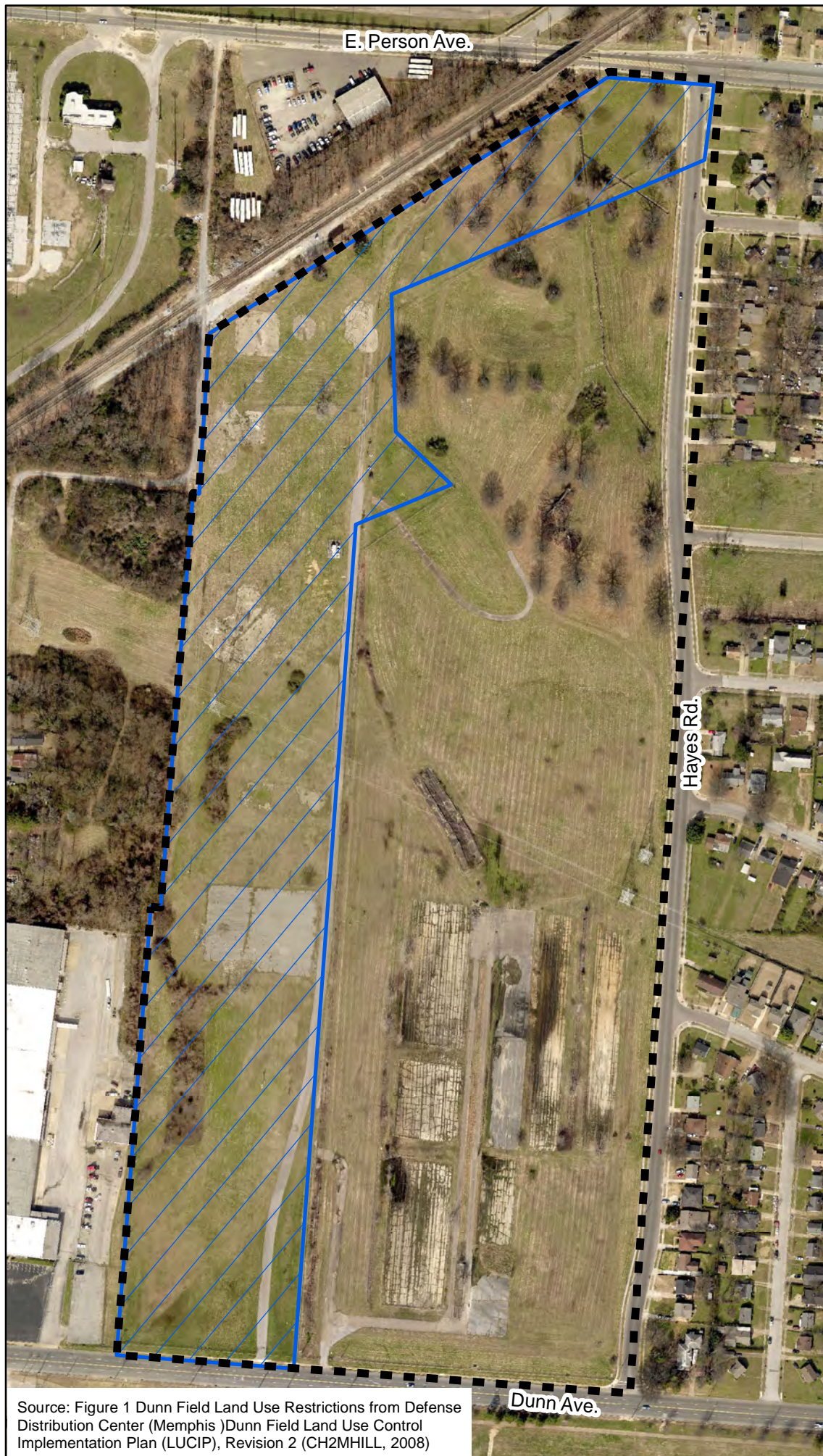


Figure 1

Land Use Restrictions Map

Annual Site Inspection Report

Dunn Field
Defense Depot
Memphis, Tennessee

Legend

■ ■ ■ Dunn Field Boundary

Land Use Control Boundary
(No residential development or child daycare uses.)

Note:
A perimeter fence is maintained on the Land Use Control Boundary.



0 250 500
Feet

Projection: NAD 1927 StatePlane Tennessee
Units: Feet, Elevation Units: Feet, NAVD88

Date: 6/4/2020
Edition: Rev 0



Source: Figure 1 Dunn Field Land Use Restrictions from Defense Distribution Center (Memphis)Dunn Field Land Use Control Implementation Plan (LUCIP), Revision 2 (CH2MHILL, 2008)

Figure 2

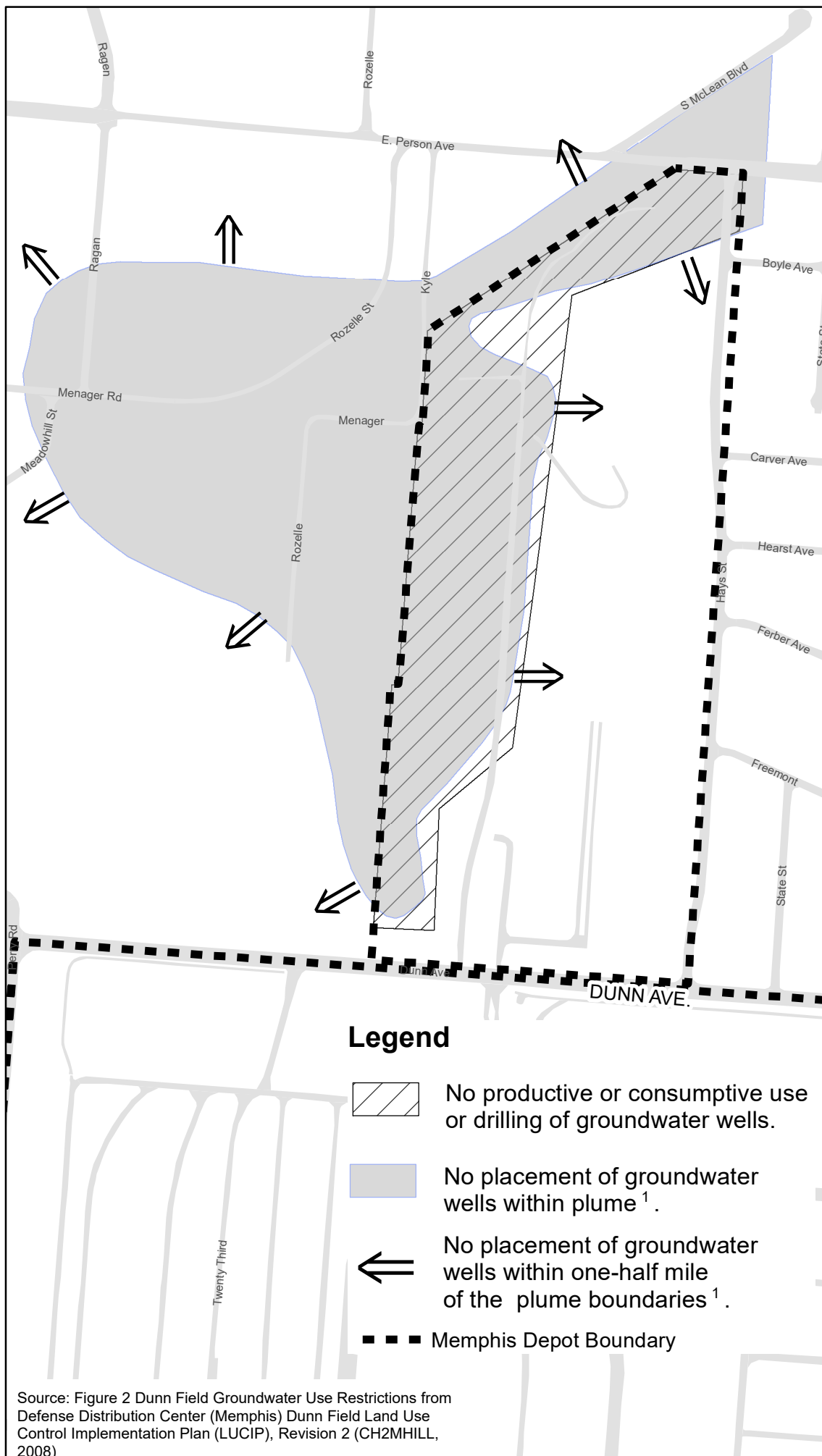
Groundwater Restrictions Map

Annual Site Inspection Report

Dunn Field
Defense Depot
Memphis, Tennessee

Note:

1. Per Shelby County
*Rules and Regulations
of Wells.*



Source: Figure 2 Dunn Field Groundwater Use Restrictions from Defense Distribution Center (Memphis) Dunn Field Land Use Control Implementation Plan (LUCIP), Revision 2 (CH2MHILL, 2008)



0 400 800
Feet

Projection: NAD 1927 StatePlane Tennessee
Units: Feet, Elevation Units: Feet, NAVD88

Date: 6/4/2020
Edition: Rev 0



Appendix A

Responses to Regulatory Agency Comments and Approval Letters



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 15, 2020

Mr. James Foster
Base Realignment and Closure Division (ACSIM-ODB)
2530 Crystal Drive (Taylor Building), Room 5000
Arlington, VA 22202-3940

Dear Mr. Foster:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Army's Responses to EPA Comments for the Defense Depot of Memphis 2019 Annual Site Inspection Reports.

EPA approves the above mentioned report and comment responses. Should you have any questions or concerns, please feel free to call me on my cell number 404-229-9500.

Sincerely,

A handwritten signature in cursive script that reads "Diedre Lloyd".

Diedre Lloyd
Remedial Project Manager
Restoration & Sustainability Branch
Superfund & Emergency Management Division

cc: Mr. James Foster, (Signed Original), United Parcel Service, Return Receipt
Mr. Jamie A. Woods, PG, Tennessee, Department of Environment and Conservation, Memphis
Environmental Field Office, 8383 Wolf Lake Drive, Bartlett, TN 38133-4119
Ms. Joan Hutton, CALIBRE, 3898 Mountain View Road, Kennesaw, GA 30152
Mr. Thomas Holmes, HDR Environmental, P.O. Box 728, Highlands, NC 28741

Above Letter was also emailed to list below and can be found at the e-file location noted below.

ec: james.c.foster10.civ@mail.mil; jamie.woods@tn.gov; joan.hutton@calibresys.com;
thomas.holmes@hdrinc.com;

e-bbc: Terrell.tina@epa.gov

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**Responses to:
U.S. Environmental Protection Agency (EPA) Region 4 Comments on:
2019 Annual Site Inspection Report
Defense Depot Memphis, Tennessee
Dated August 2019
Comments Received 3 January 2020**

EPA Comments on Main Installation (MI) Report:

1. Page 2, bullet 2, paragraph 3- the text notes that “the garden program has been inactive since June 2018.” Furthermore, Page 2, bullet 4 describes a visual inspection of the Alpha Omega Veterans Services (AO) garden. It is not clear if these two bullet items are describing the same garden, or if these are separate garden areas. For clarity and completeness, please revise the text in the 2019 Annual Site Inspection Report for MI to clearly address this issue.

Response MI 1: The statement in Bullet 2 will be revised to state “...the garden on the Barnhart Crane property has been inactive since June 2018.”

2. Table 1, Summary of Land Use Control and Monitoring Requirements, Type – Groundwater Well Restrictions notes that the purpose of the land use control is to prohibit installation of drinking water wells within a half-mile of the site and the off-site contaminated groundwater.
 - a. On Page 1, the summary of land use restrictions notes no production/consumptive use of groundwater or drilling groundwater wells on the MI, but does not reference the half-mile perimeter or any offsite contaminated plume; only areas within the site were inspected/interviewed regarding the installation of drinking water wells.
 - b. Additionally, Figure 2 does not depict the groundwater plume or reference the half-mile restricted area.

For clarity and completeness, please revise the 2019 Annual Site Inspection Report for MI to clearly address this issue.

Response MI 2: At the time the MILUCIP was completed, no offsite migration of contamination was identified and the figure only included the on-site property, excluding the area designated for unrestricted use. Recent investigations including installation of offsite wells has demonstrated that groundwater flow in the shallow aquifer is onto the MI from all sides which limits potential for offsite migration of contaminants. Figure 2 will be revised to note no placement of groundwater wells within one-half mile of the site boundary.

Mr. Parker of Shelby County Health Department will be re-contacted with regard to permits for off-site wells with 0.5 mile of the MI. The report will be revised accordingly.

EPA Comments on Dunn Field Report:

1. Page 2, first sentence notes that the “Visual inspection conducted on 23 July 2019 confirmed the fence remains intact.”
 - a. However, it is not clear if the fence adequately prevents unauthorized access.
 - b. The monitoring frequency of the fencing land use control (Table 1) references a five year inspection required by the remedy review under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); however, it is unclear at what frequency the Army is required to verify the integrity of the fencing control.
 - c. Additionally, Figure 1 depicts the perimeter of Dunn Field, but does not clearly indicate the location of the fence.

Revise the 2019 Annual Site Inspection Report for Dunn Field to clearly address this issue.

Response DF 1:

- a. Will revise text to state “Visual inspection of the Dunn Field property and perimeter fence conducted on 23 July 2019 confirmed the fence was in good condition and that unauthorized use of the property was not observed. The fence adequately prevents unauthorized entry. “
 - b. Since the LUCIP does not specify a frequency other than every 5 years, Army considers the annual inspection to be sufficient. In addition, site activities including groundwater monitoring and general site inspections occur throughout the year and unauthorized use of the property is reported to the Army BEC if observed.
 - c. The fence is located along the land use control boundary shown on Figure 1. The figure will be updated to note the fence location
2. It is unclear if the Land Use Control, Protocol (Table 1, Row 6) was verified by inspection or interviews. Please revise the 2019 Annual Site Inspection Report for Dunn Field to clearly address this issue.

Response DF 2: The protocol was intended “to be reviewed when installation personnel are proposing projects on the installation. ... At such time as the Property is transferred, the Protocol will terminate and be superseded by the deed restriction component of the remedy. ” There are no ‘installation personnel’ and the property is only used for environmental restoration activities; property transfer is planned. The following statement will be added to the report: “The Dunn Field LUC Protocol requiring denial of groundwater use or installation of groundwater wells within the site is being enforced.”



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Remediation
Memphis Environmental Field Office
8383 Wolf Lake Drive
Bartlett, TN 38133-4119

May 15, 2020

James C. Foster
BRAC Program Manager
Headquarters Department of the Army,
Assistant Chief of Staff for
Installation Management (DAIM-ODB)
Army Pentagon,
2530 Crystal Drive,
Arlington, VA 22202-3934

Subject: 2019 Site Inspection Report, Rev. 0
Defense Depot Memphis, Tennessee
TDoR ID # 79-736
TN4210020570

Mr. Foster,

TDEC-DoR has reviewed the **DDMT 2019 Site Inspection Report (Rev. 0)**, as compiled by HDR Inc., and approves of the document. If there are additional issues of concern, please contact me at (901) 371-3041 or at jamie.woods@tn.gov.

Regards,

A handwritten signature in blue ink, appearing to read "J A Woods", with a long horizontal flourish extending to the right.

Jamie A. Woods, P.G.
Project Manager
Division of Remediation
Memphis Environmental Field Office

cc: Joan Hutton (CALIBRE)
T. Holmes (HDR Inc)
D. Lloyd (EPA-PM)

TDoR NCO: file 79-736
TDoR MEFO: file 79-736