

Land Use Control Effectiveness Report - 2017
McClellan, Anniston, Alabama

Prepared for:



MCCLELLAN
DEVELOPMENT AUTHORITY

McClellan Development Authority
McClellan, Anniston, Alabama

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TABLE OF CONTENTS

LIST OF TABLES	ii
LIST OF FIGURES	ii
LIST OF APPENDICES (on CD-ROM)	ii
LIST OF ACRONYMS AND ABBREVIATIONS	ii
1.0 INTRODUCTION	1
2.0 LAND USE CONTROLS.....	2
2.1 Landfill 1, Parcel 78(6)	3
2.2 Landfill 2, Parcel 79(6)	3
2.3 Landfill 3, Parcel 80(6)	4
2.4 Landfill 4, Parcel 81(5)	4
2.5 Industrial Landfill, Parcel 175(5)	5
2.6 Former Post Garbage Dump, Parcel 126(7)	5
2.7 Fill Area North of Landfill 2, Parcel 230(7)	6
2.8 Fill Area East of Reilly Airfield, Parcel 227(7)	6
2.9 Fill Area Northwest of Reilly Airfield, Parcel 229(7)	7
2.10 Training Area T-38 Former Technical Reaction Area, Parcel 186(6)	7
2.11 Range 31: Former Defendum Field Firing Range No. 2, Parcel 215Q	8
2.12 Antitank Range, Parcel 230Q-X and Antitank Range: Former Rifle Range, Parcel 149Q	8
2.13 MRS 13	9
2.14 Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)	9
2.15 Small Weapons Repair Shop, Parcel 66(7)	9
2.16 Chemical Laundry and Motor Pool Area 1500, Parcel 94(7)	10
2.17 Former Motor Pool Area 3100, Parcels 24(7), 25(7), 73(7), 212(7), and 146(7)	10
2.18 Former Washrack, Building 1740, Soldier’s Chapel, Parcel 127(7)	10
2.19 Reilly Lake	11
2.20 GSA Warehouse Area, Parcels 151(4), 2(4), 3(4), 4(4), 67(4), 69(4), 91(4), 111(4), 128(4), 129(4), and 238(4)	11
2.21 Alpha and Bravo Munitions Response Areas	11
2.22 Dog Kennel Area, Parcel 516(7)	13
2.23 Blacktop Training Area, Parcel 511(7) and Fenced Yard in Blacktop Training Area, Parcel 512(7)	14
2.24 Golden Triangle and Y Area: M1.01, M3 Miscellaneous Property and Eastern Bypass “Y” Area Junction	14
2.25 Iron Mountain Road Ranges, Parcels 069Q, 070Q, 071Q, 075Q, 221-Q-X, 222Q-X ..	14
2.26 Training Area T-31, Parcels 184(7) and 185(7)	15
2.27 Training Area T-24A Parcels 112Q, 213Q and 214Q	15
2.28 Baby Bains Gap Road Ranges: Range 23, Parcel 79Q	15
2.29 Baby Bains Gap Road Ranges: Range 25, Parcels 83Q, 118Q-X	15
2.30 Pistol Range, Parcel OA-03	16
3.0 LUC VIOLATIONS AND ACTIONS.....	17
4.0 RECOMMENDATIONS.....	18

LIST OF TABLES

- 1 Land Use Control Summary
- 2 Incident Summary Table

LIST OF FIGURES

- 1 Security Gates
- 2 Alpha and Bravo Munitions Response Areas Warning Sign

LIST OF APPENDICES (on CD-ROM)

- Appendix A Security Checklists
- Appendix B Landfill Cap Inspection Checklist Items for Landfill 1, Landfill 2, Landfill 4, and Garbage Dump and Fill Area East of Reilly, Fill Area North of Landfill 2, and Range 12: Iron Mountain Road Ranges Maintenance and Inspection Plan
- Appendix C *2017 Annual Closure System Report, Landfill 3, Parcel 80(6) and Fill Area Northwest of Reilly Airfield, Parcel 229(7)*

LIST OF ACRONYMS AND ABBREVIATIONS

ADEM	Alabama Department of Environmental Management
ALDOT	Alabama Department of Transportation
Army	United States Department of the Army
BMP	Best Management Practice
CA	Cleanup Agreement AL4 210 020 562
CMI	Corrective Measures Implementation
Deed 13	Early Transfer Quitclaim Deed 13
ESCA	Environmental Services Cooperative Agreement
FOSET	Finding of Suitability for Early Transfer
GSA	General Services Administration
LUC	Land Use Control
LUCER	Land Use Control Effectiveness Report
LUCIP	Land Use Control Implementation Plan
Matrix	Matrix Environmental Services, LLC
MDA	McClellan Development Authority
MEC	Munitions and Explosives of Concern
MRA	Munitions Response Area
RFI	Resource Conservation and Recovery Act Facility Investigation
ROW	Right-of-way

1.0 INTRODUCTION

This 2017 Annual Land Use Control Effectiveness Report (LUCER) has been prepared by Matrix Environmental Services, LLC (Matrix) on behalf of the McClellan Development Authority (MDA) to document the effectiveness of land use controls (LUCs) on certain parcels at McClellan owned by the MDA and for which the MDA is responsible for LUC enforcement. This report is intended to satisfy the requirements stipulated in the Cleanup Agreement No. AL4 210 020 562 (CA), amended most recently in February 2014, between the Alabama Department of Environmental Management (ADEM) and the MDA (ADEM, 2014); and the Environmental Services Cooperative Agreement (ESCA) between the United States Department of the Army (Army) and the MDA.

The CA (Section IV.C.) requires land use controls on certain parcels described in the Army's Finding of Suitability for Early Transfer (FOSET) or in Environmental Covenants. Interim land use controls are further described in the Deed Notices that are attached to the Deed for the FOSET Parcels that have been transferred from the Army to the MDA (Early Transfer Quitclaim Deed, also known as "Deed 13"). The CA requires that the MDA maintain and enforce the provisions of the Deed 13 notices until investigation and corrective measures required under the CA have been completed, and final remedies implemented. This LUCER documents the enforcement of the LUCs described in Deed 13, the CA, and Environmental Covenants filed in Calhoun County Probate. Table 1 presents a summary of LUCs by site/parcel.

The ESCA, Attachment E.1., Section 2.1.3 (6) requires the MDA to *"Implement, administer, and enforce LUCs. Such implementation and administration of land use controls may be evidenced by the filing by the MDA with ADEM and the Army of an annual compliance report. The report shall certify, after inspection, that all components of land use controls are in place, and reporting any apparent violations of the land use controls, and describing actions, if any, taken in response to such violations."*

This report has been prepared to fulfill the requirements specified above. The following sections describe the LUCs established for each applicable parcel, a description of the status of the LUCs, inspection summaries, and any noted violations.

2.0 LAND USE CONTROLS

The MDA has assumed responsibility for conducting site-wide security patrols in the Main Cantonment Area, Alpha Munitions Response Area (MRA), and Bravo MRA. Dynamic Security performed the role of Matrix Security officer through September 2017 and beginning in October 2017 Matrix personnel assumed the role. Inspections were performed daily through September and beginning in October inspections were conducted on a bi-weekly basis. Incidents or concerns were noted on an Incident Report Form. The inspection forms are filed in the LUC notebook and are retained in the Matrix Anniston office. Examples of these forms are included in Appendix A. The inspection forms are available for review upon request. In addition to site-wide security, the MDA is responsible for enforcement of LUCs and interim LUCs at the following sites:

- Landfill 1, Parcel 78(6) (Landfill 1)
- Landfill 2, Parcel 79(6) (Landfill 2)
- Landfill 3, Parcel 80(6) (Landfill 3)
- Landfill 4, Parcel 81(5) (Landfill 4)
- Industrial Landfill, Parcel 175(5) (Industrial Landfill)
- Former Post Garbage Dump, Parcel 126(7) (Garbage Dump)
- Fill Area North of Landfill 2, Parcel 230(7) (Fill Area North of Landfill 2)
- Fill Area East of Reilly, Parcel 227(7) (Fill Area East of Reilly)
- Fill Area Northwest of Reilly Airfield, Parcel 229(7) (Fill Area Northwest of Reilly)
- Training Area T-38 Former Technical Reaction Area, Parcel 186(6) (Training Area T-38)
- Range 31: Former Defendum Field Firing Range No. 2, Parcel 215Q
- Antitank Range, Parcel 230Q-X and Antitank Range: Former Rifle Range, Parcel 149Q
- MRS 13
- Training Area T-6 (Naylor Field), Parcel 183(6) (Training Area T-6)
- Cane Creek Training Area, Parcel 510(7) (Cane Creek Training Area)
- Small Weapons Repair Shop, Parcel 066(7) (Small Weapons Repair Shop)
- Chemical Laundry and Motor Pool Area 1500, Parcel 94(7) (Chemical Laundry)
- Former Motor Pool Area 3100, Parcels 24(7), 25(7), 73(7), 212(7), and 146(7) (Motor Pool Area 3100)
- Former Washrack, Building 1740, Soldier's Chapel, Parcel 127(7) (Soldier's Chapel)
- Reilly Lake
- General Services Administration (GSA) Warehouse Area, Parcels 151(4), 2(4), 3(4), 4(4), 67(4), 69(4), 91(4), 111(4), 128(4), 129(4), and 238(4) (GSA Warehouse Area)
- Alpha MRA and Bravo MRA (Multiple Parcels)
- Dog Kennel Area, Parcel 516(7)
- Blacktop Training Area, Parcel 511(7) and Fenced Yard in Blacktop Training Area, Parcel 512(7) (Blacktop Training Area), part of the Training Area T-5 Sites
- M1.01, M3 Miscellaneous Property and Eastern Bypass "Y" Area Junction (Golden Triangle and Y Area)
- Iron Mountain Road Ranges, Parcels 069Q, 070Q, 071Q, 075Q, 221-Q-X, 222Q-X (Iron Mountain Road Ranges)
- Training Area T-31, Parcels 184(7) and 185(7), 100Q/101Q

- Training Area T-24A Parcels 112Q, 213Q and 214Q
- Baby Bains Gap Road Ranges: Range 23, Parcel 79Q
- Baby Bains Gap Road Ranges: Range 25, Parcels 83Q, 118Q-X
- Pistol Range, Parcel OA-03

The following sections include a parcel-by-parcel description of LUCs as specified in Deed 13, the CA, and Environmental Covenants. Also included are summaries of the inspections performed during 2017 and violations with associated corrective actions taken, as well as summaries of the landfill cap inspections performed in 2017.

2.1 Landfill 1, Parcel 78(6)

The MDA submitted Environmental Covenant, Number FY-12-02.00 associated with Landfill 1 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on October 17, 2012.

LUCs at Landfill 1 specify a restriction on residential use. Residential use includes housing, daycare facilities, playgrounds, and schools for persons under age 18. A property use restriction of surface use only; a prohibition on digging or excavation of soils; and, installation of wells for uses other than monitoring is not allowed. In addition, the installation of signs and monuments is required.

Landfill 1 was not used for residential purposes in 2017, nor is residential use anticipated in the future. Monuments were installed in January 2007 and signs were installed in January 2011 to mark the boundary of the landfill and prohibit digging. Monuments were in good condition. One no digging sign was reattached during the inspection. No digging was performed during 2017 nor is any anticipated in the future. A cap inspection was conducted at Landfill 1 on November 29, 2017. The cap and vegetative cover appeared to be in good condition. No signs of subsidence, erosion, or disturbances were observed. Finally, no monitoring wells are located at Landfill 1 and none were installed. The Landfill Cap Inspection Checklist Items report for the cap inspection is provided in Appendix B.

2.2 Landfill 2, Parcel 79(6)

The MDA submitted Environmental Covenant, Number FY-12-05.00 associated with Landfill 2 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on October 17, 2012.

LUCs at Landfill 2 specify a restriction on residential use (defined in Section 2.1). A property use restriction of surface use only; a prohibition on digging or excavation of soils; and, installation of wells for uses other than monitoring is not allowed. In addition, the installation of signs and monuments is required.

Landfill 2 was not used for residential purposes in 2017, nor is residential use anticipated in the future. Monuments were installed in July 2008 and signs were installed in January 2011 to mark the boundary of the landfill and prohibit digging. Monuments were in good condition. One no digging sign was reattached during the inspection. No digging was performed during 2017 nor is

any anticipated in the future. A cap inspection was conducted at Landfill 2 on November 29, 2017. The cap appeared to be in good condition. Vegetative cover across Landfill 2 was observed to be in good condition. No signs of subsidence, erosion, or disturbances were observed. Finally, no monitoring wells are located at Landfill 2 and none were installed. The Landfill Cap Inspection Checklist Items report for the cap inspection is provided in Appendix B.

2.3 *Landfill 3, Parcel 80(6)*

LUCs at Landfill 3 include a restriction on the consumptive or other use of groundwater and direct contact with groundwater unless proper safety and disposal measures as approved by ADEM are implemented and the prohibition of residential use of the site. No consumptive or other use of groundwater occurred in 2017, and none is anticipated in the future. No direct contact with groundwater occurred in 2017, and none is anticipated in the future with the exception of remediation activities.

LUCs also include a restriction on residential use of this parcel and a restriction on digging or disturbance of soils without ADEM approval. Boundary markers were placed in 2007, and LUCs applicable to the cap have been implemented.

No residential use of the parcel occurred during 2017, and none is anticipated in the future. No digging was performed in Parcel 80(6) in 2017 nor is any anticipated in the future. Monuments and signs were observed to be in good condition. Pursuant to the CA and the Post-Closure Care Program for Landfill 3 (as modified by the 2012 LUCER), cap inspection and repair work information is documented in the *2017 Annual Closure System Report, Landfill 3, Parcel 80(6) and Fill Area Northwest of Reilly Airfield, Parcel 229(7) (2017 Landfill 3 Closure System Report)*, which is provided in Appendix C of this report. The inspection occurred on November 30, 2017, and a summary of these cap inspections performed and copy of the cap inspection reports are also included in the *2017 Landfill 3 Closure System Report* in Appendix C.

2.4 *Landfill 4, Parcel 81(5)*

LUCs at Landfill 4 include a restriction on use of groundwater for consumption or bathing pending completion of ADEM-required groundwater monitoring. In addition, there is a restriction on digging or disturbance of soils without ADEM approval and a requirement for the installation of signs and monuments around the landfill. Monuments and signs have been installed around the landfill to mark the boundary of the landfill and prohibit digging.

Monuments and signs at Landfill 4 were in good condition. Fencing encloses much of the perimeter of the landfill and is in good condition. No consumptive or other use of groundwater occurred in 2017, and none is anticipated in the future. Groundwater sampling associated with long-term operations and maintenance of this ADEM-approved closed landfill was conducted in accordance with Landfill Solid Waste Disposal Permit #08-02. No other direct contact with groundwater occurred in 2017, and none is anticipated in the future. No digging or soil disturbance occurred in 2017, nor is any anticipated in the future. A cap inspection was conducted at Landfill 4 on November 30, 2017. The cap surface was maintained and mowed in November 2017 prior to the cap inspection. No signs of erosion or exposed debris were observed. Four areas of minor subsidence were observed south of the centrally located drainage

ditch. One additional area of disturbance was observed in the northeastern section of the landfill. The areas of subsidence will be repaired during the final closure of the Industrial Landfill. The Landfill Cap Inspection Checklist Items report for the cap inspection is provided in Appendix B.

2.5 *Industrial Landfill, Parcel 175(5)*

The Industrial Landfill is a cell within Landfill 4. LUCs at the Industrial Landfill include a restriction on use of groundwater for consumption or bathing pending completion of ADEM-required groundwater monitoring. In addition, digging or disturbance of soils without ADEM approval is prohibited. Signs and monuments have been installed around the landfill and appear to be in good condition. Fencing encloses a portion of the perimeter of the landfill and is in good condition.

No consumptive or other use of groundwater occurred in 2017, and none is anticipated in the future. Operations are conducted under Landfill Solid Waste Disposal Permit #08-02 and National Pollutant Discharge Elimination System (NPDES) Permit AL0055999. Groundwater sampling associated with long-term operations and maintenance of this ADEM-approved closed landfill was conducted in accordance with Landfill Solid Waste Disposal Permit #08-02. No other direct contact with groundwater below the parcel occurred in 2017, and none is anticipated in the future.

The Industrial Landfill is an actively-permitted landfill and is used by the MDA for disposal of construction debris from redevelopment activities at McClellan. Waste disposal is conducted in accordance with an ADEM-approved Landfill Solid Waste Disposal Permit #08-02. Monuments and signs at the Industrial Landfill were installed in conjunction with the monuments and signs placed around Landfill 4. Two no digging signs were reattached or replaced during inspection operations in November 2017. A cap inspection was conducted at Landfill 4 (including the active cell, the Industrial Landfill) on November 30, 2017. The cap surface was maintained and mowed in November 2017 prior to the cap inspection. Vegetative cover appeared to be full and in good condition. No signs of erosion or exposed debris were observed during the inspection. No areas of subsidence, erosion, or exposed debris were noted. The Landfill Cap Inspection Checklist Items report for the Landfill 4 cap inspection is provided in Appendix B.

2.6 *Former Post Garbage Dump, Parcel 126(7)*

The MDA submitted Environmental Covenant, Number FY-11-01.00 associated with the Former Post Garbage Dump, Fill Area East of Reilly Airfield, and the Fill Area Northwest of Reilly Airfield to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on September 23, 2011.

LUCs at the Former Post Garbage Dump include a restriction on residential use, a restriction of use of the property to surface use, a restriction on digging or disturbance of soils, and the prohibition of installing new monitoring wells or the consumptive or other use of groundwater.

The Former Post Garbage Dump was not used for residential purposes in 2017, nor is residential use anticipated in the future. Monuments were installed in January 2007 and signs were installed in January 2011 to mark the boundary of the landfill and prohibit digging. Monuments and signs

at the Former Post Garbage Dump were in good condition. Two no digging signs were reattached or replaced during inspection operations in November 2017. The Former Post Garbage Dump is east of Reilly Lake and access is controlled by locked gates that control vehicular access to Reilly Lake. These gates are checked bi-weekly and recorded on an inspection form that is signed and dated by the Matrix personnel. No digging was performed in 2017 nor is any anticipated in the future. A cap inspection was conducted at Garbage Dump on November 29, 2017. The cap and vegetative cover appeared to be in good condition. No signs of subsidence, erosion, or exposed debris were observed. Finally, no monitoring wells are located at Former Post Garbage Dump and none were installed. The Landfill Cap Inspection Checklist Items report for the cap inspection is provided in Appendix B.

2.7 Fill Area North of Landfill 2, Parcel 230(7)

The MDA submitted Environmental Covenant, Number FY-13-01.00 associated with the Fill Area North of Landfill 2 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on April 18, 2014.

LUCs for the Fill Area North of Landfill 2 specify a restriction on residential use. A property use restriction of surface use only; a prohibition on digging or excavation of soils; and, installation of wells for uses other than monitoring is not allowed. In addition, access control and the installation of signs and monuments is required.

A portion of the Fill Area is within the Alpha MRA boundary and access is controlled by locked gates which are checked daily and recorded on an inspection form that is signed and dated by the Matrix Security officer. Munitions and Explosives of Concern (MEC) warning signs are posted along the perimeter of the Alpha MRA which includes the Fill Area North of Landfill 2. The Fill Area North of Landfill 2 was not used for residential purposes in 2017, nor is residential use anticipated in the future. Monuments were installed on October 8 and 9, 2012 and signs were installed in November 2012 to mark the boundary of the landfill and prohibit digging. No digging or soil disturbance occurred in 2017 nor is any anticipated in the future.

A cap inspection was conducted for the Fill Area North of Landfill 2 on November 29, 2017. Monuments were in good condition. Three no digging signs were reattached during the inspection. The cap and vegetative cover appeared to be in good condition during the inspection. No bare areas were observed. No signs of subsidence, erosion, or exposed debris were observed. No monitoring wells are located at the Fill Area North of Landfill 2 and none were installed. The Landfill Cap inspection Checklist Items report for the cap inspection is provided in Appendix B.

2.8 Fill Area East of Reilly Airfield, Parcel 227(7)

The MDA submitted Environmental Covenant, Number FY-11-01.00 associated with the Former Post Garbage Dump, Fill Area East of Reilly Airfield, and the Fill Area Northwest of Reilly Airfield to ADEM for review and approval. ADEM granted approval of the LUCs and the Covenant was filed in Probate on September 23, 2011.

LUCs at the Fill Area East of Reilly Airfield include a restriction on residential use, a restriction of the use of the property to surface use, a restriction on digging or disturbance of soils, and the prohibition of installing new monitoring wells or the consumptive or other use of groundwater.

The Fill Area East of Reilly Airfield was not used for residential purposes in 2017, nor is residential use anticipated in the future. Monuments were installed in January 2007 and signs were installed in January 2011 to mark the boundary of the landfill and prohibit digging. Monuments and signs were in good condition. No digging was performed in 2017 nor is any anticipated in the future. The Fill Area is east of Reilly Lake and access is controlled by locked gates that control vehicular access to Reilly Lake. These gates are checked bi-weekly and recorded on an inspection form that is signed and dated by the Matrix personnel. A cap inspection was conducted at the Fill Area East of Reilly on November 29, 2017. The cap and vegetative cover appeared to be in good condition. No signs of subsidence, erosion, or exposed debris were observed. The Landfill Cap Inspection Checklist Items report for the cap inspection is provided in Appendix B.

2.9 Fill Area Northwest of Reilly Airfield, Parcel 229(7)

The MDA submitted Environmental Covenant, Number FY-11-01.00 associated with the Former Post Garbage Dump, Fill Area East of Reilly Airfield, and the Fill Area Northwest of Reilly Airfield to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on September 23, 2011.

LUCs at the Fill Area Northwest of Reilly Airfield include the prohibition of residential use of the property, restriction of use of the property to surface use, prohibiting digging or intrusive activities, and the prohibition of disturbing existing monitoring wells or installing new monitoring wells or the consumptive or other use of groundwater. The Fill Area Northwest of Reilly Airfield was not used for residential purposes in 2017, nor is residential use anticipated in the future. Boundary markers were placed in 2007 and signs were installed in January 2011 to mark the boundary of the landfill and prohibit digging.

No digging was performed in 2017 nor is any anticipated in the future. A cap inspection was conducted for the Fill Area Northwest of Reilly Airfield on November 30, 2017. The cap and vegetative cover appeared to be in good condition. No signs of subsidence, erosion, or exposed debris were observed. Pursuant to the CA and the Post-Closure Care Program (as modified by the 2012 LUCER) for Landfill 3 and the Fill Area Northwest of Reilly, cap inspection and repair work information is documented in the *2017 Landfill 3 Closure System Report*, which is provided in Appendix C of this report. A summary of the cap inspections performed and copy of the cap inspection reports are also included in the *2017 Landfill 3 Closure System Report* in Appendix C.

2.10 Training Area T-38 Former Technical Reaction Area, Parcel 186(6)

The MDA submitted Environmental Covenant Number FY-12-01.00 associated with Training Area T-38, Former Technical Escort Reaction Area, Range 31: Former Defendum Field Firing Range No.2, Antitank Range, Antitank Range: Former Rifle Range and MRS 13, Tracts 13A and 13B to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in

Probate on September 21, 2012. The MDA submitted Environmental Covenant Number FY-12-01.01 to ADEM for review on October 25, 2017 and will repeal and replace Environmental Covenant Number FY-12-01.00.

LUCs at the Training Area T-38 include a restriction on the consumptive or other use of groundwater except for monitoring purposes, a restriction on public access and use of the property for any purpose is not allowed pending completion of the remedy. A locked gate at the entrance to T-38 prevents public access. The gate is checked bi-weekly and recorded on an inspection form that is signed and dated by Matrix personnel. There was no evidence of public access to Training Area T-38 during 2017.

2.11 Range 31: Former Defendum Field Firing Range No. 2, Parcel 215Q

The MDA submitted Environmental Covenant Number FY-12-01.00 associated with Training Area T-38, Former Technical Escort Reaction Area, Range 31: Former Defendum Field Firing Range No.2, Antitank Range, Antitank Range: Former Rifle Range and MRS 13, Tracts 13A and 13B to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on September 21, 2012.

LUCs at the Range 31: Former Defendum Field Firing Range No. 2 include a restriction on public access and use of the property for any purpose is not allowed pending completion of the remedy. Multiple locked gates prevent public access to this area. The gates are checked bi-weekly and recorded on an inspection form that is signed and dated by Matrix personnel. There was no evidence of public access to Range 31: Former Defendum Field Firing Range No.2 during 2017.

ADEM approved no further action for hazardous, toxic, and radioactive waste (HTRW) issues at Range 31: Former Defendum Field Firing Range No. 2 on July 31, 2013. The MDA submitted Environmental Covenant Number FY-12-01.01 that eliminated restrictions on Range 31 to ADEM for review on October 25, 2017.

2.12 Antitank Range, Parcel 230Q-X and Antitank Range: Former Rifle Range, Parcel 149Q

The MDA submitted Environmental Covenant Number FY-12-01.00 associated with Training Area T-38, Former Technical Escort Reaction Area, Range 31: Former Defendum Field Firing Range No.2, Antitank Range, Antitank Range: Former Rifle Range and MRS 13, Tracts 13A and 13B to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on September 21, 2012. The MDA submitted Environmental Covenant Number FY-12-01.01 to ADEM for review on October 25, 2017 and will repeal and replace Environmental Covenant Number FY-12-01.00.

LUCs at the Antitank Range and Antitank Range: Former Rifle Range include a restriction on the consumptive or other use of groundwater except for monitoring purposes, restricted public access and use of the property for any purpose is not allowed pending completion of the remedy. Multiple locked gates prevent public access to this area. The gates are checked bi-weekly and recorded on an inspection form that is signed and dated by the Matrix personnel. There was no

evidence of public access to Antitank Range or the Antitank Range: Former Rifle Range during 2017.

2.13 MRS 13

Prior to completing the MEC remediation in MRS-13, the MDA submitted Environmental Covenant Number FY-12-01.00 associated with Training Area T-38, Former Technical Escort Reaction Area, Range 31: Former Defendum Field Firing Range No.2, Antitank Range, Antitank Range: Former Rifle Range and MRS 13 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on September 21, 2012.

Following completion and ADEM approval of the MRS-13 MEC remediation, the MDA submitted Environmental Covenant Number FY-12-01.01 to ADEM for review on October 25, 2017. LUCs at MRS-13 include a restriction on the consumptive or other use of groundwater except for monitoring purposes and a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

2.14 Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7)

The MDA submitted Environmental Covenant Number FY-12-06.00 associated with Training Area T-6 (Naylor Field), Parcel 183(6) and Cane Creek Training Area, Parcel 510(7) to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on March 7, 2013.

LUCs at the Training Area T-6 and Cane Creek Training Area include a restriction on public access and use of the property for any purpose pending completion of the remedy, prohibition on consumptive use or direct contact with groundwater, prohibition on installation of any well for extraction of groundwater for purposes of consumptive or other uses, and prohibition on disturbing groundwater monitoring wells. There was no evidence of unauthorized public access to Training Area T-6 during 2017. These areas abut the Bravo MRA and the locked gate restricting access are checked by Matrix personnel bi-weekly and recorded on an inspection form.

2.15 Small Weapons Repair Shop, Parcel 66(7)

The MDA submitted Environmental Covenant Number FY-12-07.00 associated with Former Small Weapons Repair Shop, Parcel 66(7) to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on March 7, 2013.

LUCs at the Small Weapons Repair Shop include restriction on consumptive use or direct contact with groundwater, prohibition on installation of any well for extraction of groundwater for consumptive or other uses, and prohibition on disturbing groundwater monitoring wells. No consumptive or other use of groundwater occurred in 2017, and none is anticipated in the future.

2.16 Chemical Laundry and Motor Pool Area 1500, Parcel 94(7)

The MDA submitted Environmental Covenant Number FY-12-08.00 associated with the Chemical Laundry to ADEM. ADEM provided concurrence of the LUCs and the Covenant was filed in Probate on August 13, 2014.

LUCs at the Chemical Laundry include a restriction on the consumptive use or other use of groundwater as well as direct contact with groundwater within the confines of the Covenant Boundary. Site groundwater for potable, irrigation, industrial, and agricultural uses is not allowed. In addition, installation of monitoring wells for uses other than groundwater monitoring is not allowed. Existing monitoring wells are required to remain in place and undisturbed. No consumptive or other use of groundwater occurred in 2017, nor was direct contact made. No contact or consumptive use of groundwater is anticipated in the future. Existing monitoring wells appear to be intact and undisturbed.

LUCs also specify if and when property is developed in accordance with the planned use, (1) intrusive activities may require appropriate precautions in accordance with local, state and federal regulations; and (2) if and when a building is constructed in accordance with the planned use, an evaluation of the potential for vapor intrusion will be performed at that time in accordance with local, state and federal regulations to determine if vapor mitigation measures are required. No intrusive activities took place at this parcel during 2017.

2.17 Former Motor Pool Area 3100, Parcels 24(7), 25(7), 73(7), 212(7), and 146(7)

The MDA submitted Environmental Covenant Number FY-12-03.00 associated with the Motor Pool Area 3100 and the Soldier's Chapel (discussed in Section 2.18) to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on September 21, 2012.

LUCs at the Motor Pool Area 3100 include a restriction on the use of groundwater for potable water, irrigation, industrial and agricultural applications, and prohibition on installation of any well for extraction of groundwater for purposes of consumptive or other uses. No potable, irrigation, industrial or agricultural use of groundwater occurred in 2017, and none is anticipated in the future. In 2009, the MDA entered into a lease agreement with Auburn University. The lease includes a clause that restricts Auburn University's use of Motor Pool Area 3100 to surface use only.

2.18 Former Washrack, Building 1740, Soldier's Chapel, Parcel 127(7)

The MDA submitted Environmental Covenant Number FY-12-03.00 associated with the Soldier's Chapel and the Former Motor Pool 3100 (discussed in Section 2.17) to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on September 21, 2012.

LUCs at the Soldier's Chapel include a restriction on the consumptive use or direct contact with groundwater and prohibition on installation of any well for extraction of groundwater for purposes of consumptive or other uses. No direct contact, and no consumptive or other use of groundwater occurred in 2017, and none is anticipated in the future.

2.19 Reilly Lake

LUCs at Reilly Lake as specified in Deed 13 include restrictions on swimming, wading, fishing, or harvesting aquatic animals in the lake wetlands, and streams. In addition, Deed 13 restricts consumption of fish or other aquatic animals in the lake, streams, and wetlands. However, during a Resource Conservation and Recovery Act Facility Investigation (RFI) it was determined that constituents detected in surface water and fish tissue do not pose an unacceptable risk to human health and the environment; thereby finding the lake, wetlands, and stream suitable for swimming, wading, fishing, harvesting, and consuming aquatic animals.

The Draft Final RFI (MES, January 2005), recommended LUCs for the Former Post Garbage Dump (Parcel 126(7)) and Fill Area East of Reilly (Parcel 227(7)) (Sections 2.6 and 2.8), however, LUCs for the Reilly Lake area were not recommended. On April 17, 2006, ADEM concurred with this recommendation and the RFI was subsequently finalized and dated May 2006. Upon selling or conveyance of the property, the transfer deed will rescind the deed restrictions in accordance with the RFI recommendations.

2.20 GSA Warehouse Area, Parcels 151(4), 2(4), 3(4), 4(4), 67(4), 69(4), 91(4), 111(4), 128(4), 129(4), and 238(4)

The MDA submitted Environmental Covenant Number FY-12-04.00 associated with the GSA Warehouse Area to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on February 25, 2013.

LUCs on the GSA Warehouse Area include a restriction on consumptive or other use of groundwater and direct contact with groundwater, prohibition on installation of any well for extraction of groundwater for purposes of consumptive or other use, and restriction on the property to industrial and commercial reuse only. The property was used for industrial/commercial purposes in 2017. No consumptive or other use of groundwater occurred in 2017, and none is anticipated in the future. No direct contact with groundwater occurred in 2017, and none is anticipated in the future.

2.21 Alpha and Bravo Munitions Response Areas

The MDA submitted Environmental Covenant Number FY-15-01.00 associated with the MRS-1 and Covenant Number FY-15.02.00 associated with Southern Alpha to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on October 5, 2015. LUCs at MRS-1 and Southern Alpha include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of an area three feet either side and including the area underneath both the Industrial Access Road and Bains Gap Road, and a prohibition on intrusive activities within the Cemetery Boundary in Southern Alpha. MRS-1 LUCs also include a restriction on residential use within the area of the MRS-1 boundary consisting of the entire Parcel 118Q-X and portions of Parcel 83Q as identified on the MRS-1 boundary map in the Covenant.

The MDA submitted Environmental Covenant Number FY-17-01.00 associated with the MRS-2 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on August 24, 2017. LUCs at MRS-2 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-18-01.00 associated with the MRS-3 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on December 28, 2017. LUCs at MRS-3 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-17-04.00 associated with the MRS-4 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on August 31, 2017. LUCs at MRS-4 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-16-01.00 associated with the MRS-5 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on March 22, 2016. LUCs at MRS-5 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-16-02.00 associated with the MRS-6 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on March 22, 2016. LUCs at MRS-6 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-18-02.00 associated with the MRS-8 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on December 28, 2017. LUCs at MRS-8 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected

UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-18-03.00 associated with the MRS-9 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on December 28, 2017. LUCs at MRS-9 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-17-02.00 associated with the MRS-11 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on August 31, 2017. LUCs at MRS-11 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

The MDA submitted Environmental Covenant Number FY-16-03.00 associated with the MRS-12 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on March 22, 2016. LUCs at MRS-12 include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

LUCs for the Alpha MRA and Bravo MRA pertain to MEC, and are intended to minimize the risk to human health and the environment, and to promote public safety. The LUCs require controlled access to the Alpha MRA and Bravo MRA as well as public education on the explosive hazards associated with munitions that may be present on the parcel and actions they should take should a MEC item be encountered. Gates have been installed to restrict vehicular access to these areas (Figure 1). Each gate is maintained under lock and key control. Signs are posted on the gates warning persons to keep out of the areas beyond the gates. Locked gates are inspected bi-weekly by Matrix and results of the inspection recorded on an inspection form. The inspection forms are filed in the MES’ offices and are available upon request.

MEC warning signs (Figure 2) are installed around the perimeter of the Alpha MRA and Bravo MRA, and are inspected by Matrix on a bi-weekly basis. Missing or damaged signs are replaced. The MDA coordinates the community outreach program with the Army. A training video explaining the dangers of MEC is mandatory for anyone performing work on McClellan. The MDA and Matrix brief all contractors conducting work in these areas at McClellan on the possibility of encountering MEC, and describe procedures to implement should MEC happen to be encountered.

2.22 Dog Kennel Area, Parcel 516(7)

LUCs have been established at the Dog Kennel Area to facilitate use of the site by Auburn University for use in their canine training program. The LUCs for the Dog Kennel Area pertain to unexploded ordnance, and are intended to minimize the risk to human health and the environment, and to promote public safety. Therefore, use of the Dog Kennel Area property is restricted to surface use. The tenant's personnel, including employees or authorized visitors, on site at the Dog Kennel Area must receive ordnance familiarization training. Additionally, "No Trespassing" signs are posted.

The MDA has incorporated provisions in the lease document prohibiting intrusive activity on the property. A training video explaining the dangers of MEC is mandatory for persons who enter and/or use the Dog Kennel Area. In 2009, MEC clearance activities associated with MRS-3 were conducted in the Dog Kennel Area.

2.23 Blacktop Training Area, Parcel 511(7) and Fenced Yard in Blacktop Training Area, Parcel 512(7)

LUCs at the Training Area T-5 Sites include a restriction on public access and a restriction barring use of the property for any purpose pending completion of characterization and any required response action. LUCs have been established at the Blacktop Training Area (part of the Training Area T-5 Sites) to facilitate use of the site by Auburn University for use in their canine training program. Use of the Blacktop Training Area property is restricted to surface use. There was no evidence of unauthorized public access to the Training Area T-5 Sites during 2017.

2.24 Golden Triangle and Y Area: M1.01, M3 Miscellaneous Property and Eastern Bypass "Y" Area Junction

LUCs at the Golden Triangle and Y Area, located in the northern portion of the Bravo Area, include a deed notice in the property transfer documents that informs future property owners of the historical military use and provides notification procedures in the event a MEC item is discovered. Construction support for MEC avoidance is required for the M1.01 Parcel, M3 Miscellaneous Property, and Eastern Bypass "Y" Area Junction.

2.25 Iron Mountain Road Ranges, Parcels 069Q, 070Q, 071Q, 075Q, 221-Q-X, 222Q-X

LUCs at the Iron Mountain Road Ranges include a restriction on public access and a restriction barring use of the property for any purpose pending completion of characterization and any required response action. The Alabama Department of Transportation (ALDOT) completed construction of a four-lane bypass road (Veterans Memorial Parkway) adjacent to the sites in December 2015. Public access is controlled through the installation of a security fence on both sides of the new road. The gate used to control access to Iron Mountain Road Ranges is controlled and locked.

On September 27, 2012, the MDA submitted to ADEM a revised inspection and maintenance plan to address the erosion control requirements for the slope of Range 12 in Parcel 70Q. As stated in the *Range 12 (Parcel 70Q): Iron Mountain Road Ranges Maintenance and Inspection Plan* dated September 27, 2012, the MDA will perform annual inspections and routine maintenance as needed to the Best Management Practices (BMPs) already installed at the slope

of Range 12 to ensure BMP effectiveness until the slope is stabilized. The annual inspection occurred on March 18, 2017. The deficiency in BMPs repaired in March 2015 was observed to be functioning properly. The t-posts were still in place and helping to stabilize the slope. No damage to the BMPs was observed during the inspection. The slope of Range 12 (Parcel 70Q) does show signs of erosion. The slope is very steep and limited in vegetative cover. The existing BMPs help to stabilize the area of erosion and limit the amount of soil that is washed downhill. No sediment was observed leaving the site and no sediment was observed having migrated to the base of the slope during the inspection. Native vegetation has taken root and is helping to stabilize the slope. As Range 12 has not yet undergone lead remediation, there may be significant disturbance to the surface in the future. Inspection documentation is included in Appendix B.

2.26 Training Area T-31, Parcels 184(7) and 185(7)

LUCs at Training Area T-31 specify that public access is not allowed and use of the property for any purpose is not allowed pending completion of the remedy. There was no evidence of unauthorized public access to the Training Area T-31 during 2017.

2.27 Training Area T-24A Parcels 112Q, 213Q and 214Q

LUCs at the Training Area T-24A specify that public access is not allowed and use of the property for any purpose is not allowed pending completion of the remedy. There was no evidence of unauthorized public access or use of the Training Area T-24A during 2017. We note these are non-ESCA sites and are not on MDA property.

2.28 Baby Bains Gap Road Ranges: Range 23, Parcel 79Q

Soil remediation for metals contamination was limited in depth in a portion of Range 23, Parcel 79Q that is partially located within the boundary of MRS-4 that was cleared for munitions to a depth of one foot. The MDA submitted Environmental Covenant Number FY-17-04.00 associated with Baby Bains Gap Road Ranges: Range 23, Parcel 79Q to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on August 31, 2017. LUCs at Range 23, Parcel 79Q include a prohibition on intrusive activities without explosives ordnance disposal (EOD) personnel or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.

2.29 Baby Bains Gap Road Ranges: Range 25, Parcels 83Q, 118Q-X

The MDA submitted Environmental Covenant Number FY-15-01.00 associated with Baby Bains Gap Road Ranges: Range 25, Parcels 83Q and 118Q-X and MRS-1 to ADEM for review. ADEM concurred with the LUCs and the Covenant was filed in Probate on October 5, 2015. LUCs at Baby Bains Gap Road Ranges: Range 25, Parcels 83Q and 118Q-X include a restriction on residential use in entire Parcel 118Q-X and portions of Parcel 83Q as identified on the MRS-1 boundary map in the Covenant.

2.30 Pistol Range, Parcel OA-03

ADEM approved no further action with land use controls that includes a restriction on residential use at Pistol Range, Parcel OA-03 on January 26, 2017. The MDA submitted Environmental Covenant Number FY-12-01.01 that includes a restriction on residential use in entire Parcel OA-03 to ADEM for review on October 25, 2017.

3.0 LUC VIOLATIONS AND ACTIONS

LUC violations that occurred in 2017 are listed in Table 2. The security checks performed by Dynamic Security and Matrix include checking for trespassers of any kind. The most common trespassers are poachers, walkers, and joggers. Both Federal and State Game Wardens occasionally patrol the areas frequented by poachers and have chased and apprehended poachers during sting operations. The Federal and State Game Wardens patrol throughout the site; including the Alpha and Bravo MRAs. The Wardens are trained in MEC awareness and patrol only on roadways and trails. The total elimination of poaching would be difficult due to the large area of the base, remoteness of many areas, the number of egress points through the woods onto the base, and the use of all-terrain vehicles by the poachers. The Matrix security personnel and Federal and State Game Wardens will continue to patrol known areas of poaching and trespassing.

Another LUC violation is warning sign theft. Warning signs are inspected by Matrix on a bi-weekly basis. Missing or damaged signs are replaced.

4.0 RECOMMENDATIONS

It is recommended that regular inspections continue. It is also recommended that the MDA and Matrix employees remain vigilant in identifying areas where trespassing may be occurring, as well as support for the Federal and State Game Wardens.

TABLES

Table 1: Land Use Control Summary
Land Use Control Effectiveness Report

Site - Parcel	Land Use Control
Landfill 1 - Parcel 78(6)	Restriction on digging or disturbance of soil (Covenant FY-12-02.00) Restriction on residential use (Covenant FY-12-02.00) Restrictions on groundwater monitoring well installation and groundwater use (Covenant FY-12-02.00) Monuments and signs (CA, Covenant FY-12-02.00)
Landfill 2 - Parcel 79(6)	Restriction on digging or disturbance of soil (Covenant FY-12-05.00) Restriction on residential use (Covenant FY-12-05.00) Restrictions on groundwater monitoring well installation and groundwater use (Covenant FY-12-05.00) Monuments and signs (CA, Covenant FY-12-05.00)
Landfill 3 - Parcel 80(6)	Restriction on consumptive, other use or contact with groundwater (Deed 13, LUCIP) Restriction on digging or disturbance of soil (LUCIP) Restriction on residential use (Deed 13, LUCIP)
Landfill 4 - Parcel 81(5)	Restriction on use of groundwater for consumption or bathing pending completion of ADEM-required Monuments and signs (Deed 13) Restriction on digging or disturbance of soil (LUCIP)
Industrial Landfill - Parcel 175(5)	Restriction on use of groundwater for consumption or bathing pending completion of ADEM-required Monuments and signs (Deed 13) Restriction on digging or disturbance of soil (LUCIP)
Former Post Garbage Dump - Parcel 126(7)	Restriction on digging or disturbance of soil (Covenant FY-11-01.00) Property use is restricted to surface use (Covenant FY-11-01.00) Restriction on digging or disturbance of soils (Covenant FY-11-01.00) Restrictions on groundwater monitoring well installation and groundwater use (Covenant FY-11-01.00)
Fill Area North of Landfill 2 - Parcel 230(7)	Restriction on digging or disturbance of soil (Covenant FY-13-01.00) Restriction on residential use (Covenant FY-13-01.00) Restrictions on groundwater monitoring well installation and groundwater use (Covenant FY-13-01.00) Monuments and signs (Covenant FY-13-01.00)
Fill Area East of Reilly - Parcel 227(7)	Restriction on digging or disturbance of soil (Covenant FY-11-01.00) Property use is restricted to surface use (Covenant FY-11-01.00) Restriction on digging or disturbance of soils (Covenant FY-11-01.00) Restrictions on groundwater monitoring well installation and groundwater use (Covenant FY-11-01.00)
Fill Area NW of Reilly - Parcel 229(7)	Restriction on digging or disturbance of soil (Covenant FY-11-01.00) Property use is restricted to surface use (Covenant FY-11-01.00)

**Table 1: Land Use Control Summary
Land Use Control Effectiveness Report**

Site - Parcel	Land Use Control
	Restriction on digging or disturbance of soils (Covenant FY-11-01.00) Restriction on groundwater monitoring well installation and groundwater use (Covenant FY-11-01.00)
Training Area T-38 Former Technical Reaction Area - Parcel 186(6)	Restriction on consumptive use of groundwater except for monitoring purposes (Covenant FY-12-01.00) (Superceded by FY-12-01.01 - Pending) No use of property pending completion of remedy (Covenant FY-12-01.00) (Superceded by FY-12-01.01 - Pending)
Range 31: Former Defendum Field Firing Range No.2 - Parcel 215Q	Restriction on public access and use of the property for any purpose is not allowed pending completion of the remedy (Covenant FY-12-01.00) (Superceded by FY-12-01.01 - Removal Pending)
Antitank Range - Parcel 230Q-X, Antitank Range: Former Rifle Range - Parcel 149Q	Restriction on public access and use of the property for any purpose is not allowed pending completion of the remedy (Covenant FY-12-01.00) (Superceded by FY-12-01.01 - Pending)
MRS-13	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed "on-call" to assist if suspected UXO are encountered during construction activities within the confines of the Covenant Boundary.(Covenant FY-12-01.00) (Superceded by FY-12-01.01 - Pending)
Training Area T-6 (Naylor Field) - Parcel 183(6) and Cane Creek Training Area - Parcel 510(7)	Restriction on public access (Deed 13) No use of property pending completion of characterization and a required response action (LUCIP)
Small Weapons Repair Shop - Parcel 66(7)	Restrictions on groundwater monitoring well installation and groundwater use (Covenant FY-12-07.00)
Motor Pool Area 1500 and Chemical Laundry - Parcel 94(7)	Restriction on consumptive, other use or contact with groundwater and direct contact with groundwater (Covenant FY-12-08.00). Restriction of use of site groundwater for potable water, irrigation, industrial and agricultural applications (Covenant FY-12-08.00). If and when property is developed in accordance with the planned use, intrusive activities may require appropriate precautions in accordance with local, state and federal regulations (Covenant FY-12-08-00). If and when a building is constructed in accordance with the planned use, an evaluation of the potential for vapor intrusion will be performed at that time in accordance with local, state and federal regulations to determine if vapor mitigation measures are required (Covenant FY-12-08-00). The installation of any well for extraction of groundwater for purposes of consumptive or other uses (unless said wells are intended to be utilized by the Holder or ADEM for groundwater monitoring) is prohibited within the Covenant Boundary (Covenant FY-12-08-00). If groundwater monitoring wells or a remediation system remain on and/or around the Property (CERFA Parcel and/or Covenant Boundary) these areas shall not be disturbed (Covenant FY-12-08-00).

Table 1: Land Use Control Summary
Land Use Control Effectiveness Report

Site - Parcel	Land Use Control
Former Motor Pool Area 3100 – Parcels 24(7), 25(7), 73(7), 212(7), and 146(7)	Restriction on the use of groundwater for potable water, irrigation, industrial and agricultural applications (Covenant FY-12-03.00) Restriction on groundwater monitoring well installation and groundwater use (Covenant FY-12-03.00)
Former Washrack, Building 1740, Soldier’s Chapel – Parcel 127(7)	Restriction on the consumptive use or direct contact with groundwater (Covenant FY-12-03.00) Restriction on groundwater monitoring well installation and groundwater use (Covenant FY-12-03.00)
General Services Administration (GSA) Warehouse Area – Parcels 151(4), 2(4), 3(4), 4(4), 67(4), 69(4), 91(4), 111(4), 128(4), 129(4), and 238(4)	Restricted to commercial and industrial reuse (Covenant FY-12-04.00) Restriction on consumptive or other use of groundwater and direct contact with groundwater (Covenant FY-12-04.00) Restriction on groundwater monitoring well installation and groundwater use (FY-12-04.00)
Alpha Area (Multiple Parcels) and Bravo Area (Multiple Parcels)	Public education and restriction on public access (Deed 13) No use of property pending completion of characterization and a required response action (LUCIP)
MRS-1, Baby Bains Gap Road Ranges: Range 25 Parcel 83Q, 118Q-X	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the confines of an area three feet either side and including the area underneath both the Industrial Access Road and Bains Gap Road of the Covenant Boundary (FY-15-01.00) Restriction on residential use in entire Parcel 118Q-X and portions of Parcel 83Q as identified on the MRS-1 boundary map (FY-15-01.00)
Southern Alpha	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction within the confines of the Cemetery Boundary or within the confines of an area three feet either side and including the area underneath Bains Gap Road of the Covenant Boundary (FY-15-02.00)
MRS-2	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-17-01.00)
MRS-3	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-18-01.00)

Table 1: Land Use Control Summary
Land Use Control Effectiveness Report

Site - Parcel	Land Use Control
MRS-4	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-17-04.00)
MRS-5	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-16-01.00)
MRS-6	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-16-02.00)
MRS-8	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-18-02.00)
MRS-9	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-18-03.00)
MRS-11	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-17-02.00)
MRS-12	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed “on-call” to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-16-03.00)
Dog Kennel Area	Restricted to surface use only (LUCIP) Ordnance familiarization training (LUCIP) No trespassing signs (LUCIP)
Blacktop Training Area, Parcel 511(7) and Fenced Yard in Blacktop Training Area, Parcel 512(7) (part of Training Area T-5 Sites)	Restriction on public access (Deed 13) Restricted to surface use only (LUCIP) No use of property pending completion of characterization and a required response action (LUCIP)

Table 1: Land Use Control Summary
Land Use Control Effectiveness Report

Site - Parcel	Land Use Control
Golden Triangle and Y Area: M1.01, M3 Miscellaneous Property and Eastern Bypass "Y" Area Junction	Deed notice in the property transfer documents with procedures to follow if MEC items are discovered. (LUCIP) Focused construction support for MEC avoidance during construction of commercial building and infrastructure in the M1.01 Parcel, M3 Miscellaneous Property and Eastern Bypass "Y" Area Junction (CA change pending)
Iron Mountain Road Ranges, Parcels 069Q, 070Q, 071Q, 075Q, 221Q-X, and 222Q-X	Restriction on public access (CA) No use of property pending completion of the remedy (CA)
Training Area T-31, Parcels 184(7) and 185(7)	Restriction on public access (CA) No use of property pending completion of the remedy (CA)
Training Area T-24A Parcels 112Q, 213Q and 214Q	Restriction on public access (CA) No use of property pending completion of the remedy (CA)
Baby Bains Gap Road Ranges: Range 23, Parcel 79Q	Prohibition on intrusive activities without EOD or UXO-qualified personnel being contacted to ensure their availability, advised about the project, and placed "on-call" to assist if suspected UXO are encountered during construction activities within the Covenant Boundary (FY-17-04.00)
Pistol Range, Parcel OA-03	Restriction on residential use in entire Parcel OA-03 (FY-12-01.01 - Pending)

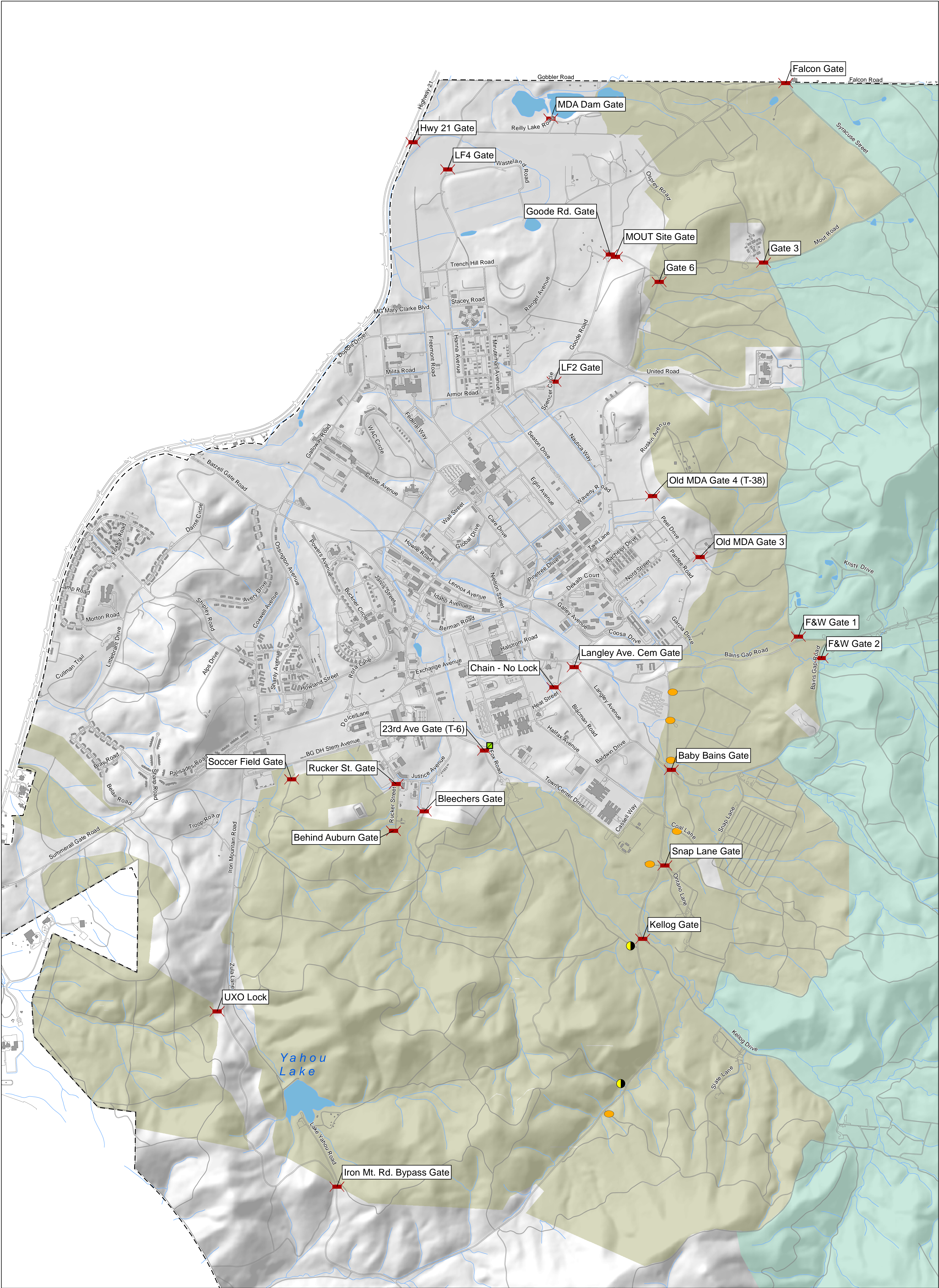
CA - Cleanup Agreement

LUCIP - Land Use Control Implementation Plan

Table 2: Incident Summary Table
Land Use Control Effectiveness Report

No.	Date of Incident	Time of Incident	Summary of Incident
1	June 20, 2017	7:30 AM	The MDA notified Dynamic Security regarding a possible trespasser on Fox Road. Dynamic, Matrix and the MDA met at the Fox Road gate and located a trespasser and car that was stuck in the mud behind the locked gate. The trespasser claimed to have followed AMK-9 through the open gate and into the secured area. Afterwhich, the gate was resecured and the trespasser was unable to drive out.

FIGURES



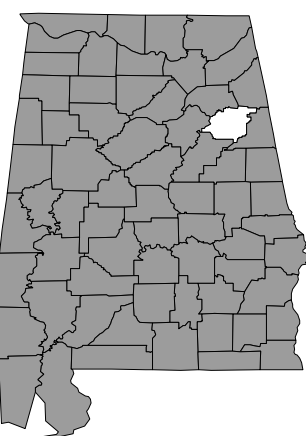
Legend

- | | | |
|----------------|--------------------|--------|
| Gate | McClellan Boundary | Lake |
| Chain | Charlie | Roads |
| Dirt Berm | Buildings | Stream |
| Jersey Barrier | | |

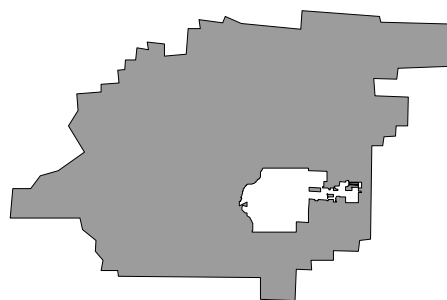
0 500 1,000 2,000 Feet



Alabama



Calhoun County



**FIGURE 1
LAND USE CONTROLS**

McClellan
Anniston, Alabama





Figure 2

(r-07/11/18)

APPENDICES

APPENDIX A

Security Checklists

Daily Security Checklist

Security Officer: _____

Date: _____

Gate Number	Parcel/ Location	Times Checked				Barrier Condition	Gate Condition	Locked/Open Lock Operates	Evidence of Tresspass	Buddy Locks/ Permitted
Bravo Area										
T-38 Gate, Old MDA 4	Entrance to T-38									UXO
OLD MDA Gate 3	Lauren Road									UXO
Fish & Wildlife Gate 1	Bains Gap Road									UXO
Fish & Wildlife Gate 2	Baby Bains									UXO
Baby Bains Gate	Baby Bains									UXO
Langley Ave/Cemetary	Langley Avenue									UXO
Snap Lane Gate	Snap Lane									UXO
Kellogg Road Gate	Kellogg Road									UXO
T6-23rd Ave Gate	Fox Road									UXO
Auburn Bleachers Gate	Bleachers (Auburn)									UXO
Rucker Street Gate	Behind Matrix Office									UXO
Behind Auburn Gate	Near Dog Kennels									UXO
Soccer Road Gate	Soccer Park									UXO
Iron Mtn Bypass Gate	Iron Mountain Road									UXO
LF2 Gate	Goode Road									UXO
Mout Site Gate	Mout Site Entrance									UXO
Old MDA Gate 6	Mout Road									UXO
Mout Site Gate 3	Behind Mout Site									UXO
Goode Road Main Gate	Goode Road									UXO
Falcon Road Gate	Falcon Road									UXO
HWY 21 Gate	Hwy 21									UXO
Landfill 4 Gate	Gobbler Road									UXO
Mudpuddle Road Gate	Off Irn Mtn Road									UXO
Last Lock on Right	Yahoo Short-cut									UXO
Museum Gate	Southern Boundary									UXO
Snake Road Gate	Off Irn Mtn Road									UXO

COMMENTS

SIGNATURE _____

MATRIX ENVIRONMENTAL SERVICES, LLC.
283 RUCKER STREET ANNISTON, AL 36205
256.847.0780

INCIDENT REPORT

CLIENT: _____ PHONE: () _____
ADDRESS: _____

WHO WAS INVOLVED?	<u>NAME</u>	<u>TITLE</u>	<u>PHONE</u>

WHAT HAPPENED?

WHEN Incident Occurred: _____

WHERE Incident Occurred: _____

WHY Incident Occurred : _____

How Incident Occurred: _____

Client Notified: _____

Time Notified: _____ Date: _____

S/O Reporting: _____ S/O Signature: _____

Time of Report: _____ Date of Report: _____

Matrix Supervisor Notified: _____ Time: _____

Supervisor Comments: _____

APPENDIX B

Landfill Cap Inspection Checklist Items for Landfill 1, Landfill 2, Landfill 4, Garbage Dump and Fill Area East of Reilly, Fill Area North of Landfill 2, and Range 12: Iron Mountain Road Ranges

LANDFILL COVER INSPECTION CHECKLIST ITEMS

Specific Site Identification: McClellan Landfill 1, Parcel 78(6) Date: 11/29/17

Landfill Cover Survey

1. Observe any areas on the cover that indicate signs of subsidence (e.g., obvious visible low spots on the cover surface where significant amounts of standing water can accumulate in puddles during significant precipitation events).

No evidence of subsidence was observed during the cap inspection.

2. Observe any signs of erosion on the landfill cover (e.g., during windy conditions observe any evidence of dust blowing off of the cover, check for any erosion caused by stormwater runoff). Any exposed debris?

No signs of erosion or exposed debris was observed during the inspection.

3. Check the condition of the vegetative cover. (e.g. check for bare spots in the vegetative cover; Note whether no vegetation has grown or whether the vegetation has died and has not been re-established, check for abnormal growth of weeds that may crowd out natural vegetation}.

The vegetative cover was observed to be in good condition during the inspection. No bare areas were observed.

Landfill Monument Benchmark Survey

1. Check the condition of the brass benchmark implanted on the concrete monuments; make sure that the concrete has not deteriorated around the monument foundation and that the etched mark is still visible.

☒ Monument 1, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 2, Comments: Good condition, no damage. No digging sign was missing but was replaced during the inspection.

☒ Monument 3, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 4, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 5, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 6, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 7, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 8, Comments: Good condition, no damage. No digging sign was attached.

Inspected by: Jason Tulley

Signature: Jason Tulley **Date:** 11/29/17

Photo Log
Annual Cap Inspection
Landfill 1



The boundary monuments were visible and in good condition during the inspection.



No erosion was observed during the inspection.



Vegetation was observed to be in good condition during the inspection.

LANDFILL COVER INSPECTION CHECKLIST ITEMS

Specific Site Identification: McClellan Landfill 2, Parcel 79(6) Date: 11/29/17

Landfill Cover Survey

1. Observe any areas on the cover that indicate signs of subsidence (e.g., obvious visible low spots on the cover surface where significant amounts of standing water can accumulate in puddles during significant precipitation events).

No evidence of subsidence was observed during the cap inspection.

2. Observe any signs of erosion on the landfill cover (e.g., during windy conditions observe any evidence of dust blowing off of the cover, check for any erosion caused by stormwater runoff). Any exposed debris?

No signs of erosion or exposed debris was observed during the inspection.

3. Check the condition of the vegetative cover. (e.g. check for bare spots in the vegetative cover; Note whether no vegetation has grown or whether the vegetation has died and has not been re-established, check for abnormal growth of weeds that may crowd out natural vegetation}.

The vegetative cover was observed to be in good condition during the inspection. No bare areas were observed.

Landfill Monument Benchmark Survey

1. Check the condition of the brass benchmark implanted on the concrete monuments; make sure that the concrete has not deteriorated around the monument foundation and that the etched mark is still visible.

☒ Monument 1, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 2, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 3, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 4, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 5, Comments: Good condition, no damage. No digging sign Missing. New one was attached.

☒ Monument 6, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 7, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 8, Comments: Good condition, no damage. No digging sign was attached.

Inspected by: Jason Tulley

Signature: Jason Tulley **Date:** 11/29/17

Photo Log
Annual Cap Inspection
McClellan Landfill 2



One boundary monument was missing a No Digging Sign. It was replaced at the time of inspection.



The no digging sign was replaced and secured to the boundary monument.



The vegetation across the landfill was observed to be in good condition at the time of the inspection. No bare areas were observed. No erosion of the landfill cap was observed during the inspection. No low areas or exposed debris was observed.

LANDFILL COVER INSPECTION CHECKLIST ITEMS

Specific Site Identification: McClellan Landfill 4, Parcel 81(5)

Date: 11/30/2017

Landfill Cover Survey

1. Observe any areas on the cover that indicate signs of subsidence (e.g., obvious visible low spots on the cover surface where significant amounts of standing water can accumulate in puddles during significant precipitation events).

Four areas of minor subsidence were observed south of the centrally located drainage ditch. The approximate size and location of the areas was noted on the attached figure. One additional area of disturbance was observed in the northeastern section of the landfill. This is an area that has been repaired multiple times due to deer damaging the surface. Deer prints were observed in this area during the inspection. The areas of subsidence will be repaired during the final closure of the Industrial Landfill.

2. Observe any signs of erosion on the landfill cover (e.g., during windy conditions observe any evidence of dust blowing off of the cover, check for any erosion caused by stormwater runoff). Any exposed debris?

No evidence was observed during the inspection. No exposed debris was observed.

3. Check the condition of the vegetative cover. (e.g. check for bare spots in the vegetative cover; Note whether no vegetation has grown or whether the vegetation has died and has not been re-established, check for abnormal growth of weeds that may crowd out natural vegetation}.

The landfill vegetative cover was mowed prior to the inspection. The vegetation is full and has good coverage except in the areas mentioned above.

4. Check the condition of the boundary fence. (e.g. check for holes in the fence, any areas requiring repair, and that the fence is sufficient to prevent unauthorized entry.)

The boundary fence was in good condition at the time of the inspection.

Landfill Monument Benchmark Survey

1. Check the condition of the brass benchmark implanted on the concrete monuments; make sure that the concrete has not deteriorated around the monument foundation and that the etched mark is still visible.

☒ Monument 1, Comments: Good condition, no damage. No digging sign was intact.

☒ Monument 2, Comments: Good condition, no damage. No digging signs was intact.

☒ Monument 3, Comments: Good condition, no damage. Sign replaced during inspection.

☒ Monument 4, Comments: Good condition, no damage. No digging signs was intact.

☒ Monument 5, Comments: Good condition, no damage. Sign replaced during inspection.

☒ Monument 6, Comments: Good condition, no damage. No digging signs was intact.

☒ Monument 7, Comments: Good condition, no damage. No digging signs was intact.

☒ Monument 8, Comments: Good condition, no damage. No digging sign was intact.

☒ Monument 9, Comments: Good condition, no damage. No digging signs was intact.

Notes: _____

Inspected by: Jason Tulley

Signature: Jason Tulley Date: 11/30/17

McClellan Landfill 4, Parcel 81(5)
Landfill Cap Inspection Photos
Nov 30th 2017



LF4-001: The cap surface appeared to be in good condition at the time of the inspection. The vegetation was in good condition except for the areas previously identified for repair.



LF4-003: An area in the northeastern corner of the landfill (Area A on the attached figure) was observed to have been disturbed. This area is often frequented by deer.



LF4-002: The boundary monuments were observed to be in good condition. Two No Digging signs were missing. They were replaced at the time of the inspection.



LF4-004: Four areas of minor subsidence were still visible. The areas of subsidence have been identified and are scheduled to be repaired during construction of the final landfill cap.

LANDFILL COVER INSPECTION CHECKLIST ITEMS

Specific Site Identification: McClellan Former Post Garbage Dump, Parcel 126(7) Date: 11/29/17
McClellan Fill Area East Reilly Airfield, Parcel 227(7)

Landfill Cover Survey

1. Observe any areas on the cover that indicate signs of subsidence (e.g., obvious visible low spots on the cover surface where significant amounts of standing water can accumulate in puddles during significant precipitation events).

No evidence of subsidence was observed during the cap inspection.

2. Observe any signs of erosion on the landfill cover (e.g., during windy conditions observe any evidence of dust blowing off of the cover, check for any erosion caused by stormwater runoff). Any exposed debris?

No signs of erosion or exposed debris was observed during the inspection.

3. Check the condition of the vegetative cover. (e.g. check for bare spots in the vegetative cover; Note whether no vegetation has grown or whether the vegetation has died and has not been re-established, check for abnormal growth of weeds that may crowd out natural vegetation}.

The vegetative cover was observed to be in good condition during the inspection. No bare areas were observed.

Landfill Monument Benchmark Survey

1. Check the condition of the brass benchmark implanted on the concrete monuments; make sure that the concrete has not deteriorated around the monument foundation and that the etched mark is still visible.

☒ Monument 1, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 2, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 3, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 4, Comments: Good condition, no damage. No digging sign missing replaced during inspection.

☒ Monument 5, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 6, Comments: Good condition, no damage. No digging sign missing replaced during inspection.

☒ Monument 7, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 8, Comments: Good condition, no damage. No digging sign was attached.

Inspected by: Jason Tulley

Signature: Jason Tulley **Date:** 11/29/17

Photo Log
Annual Cap Inspection
McClellan Former Post Garbage Dump and Fill Area East of Reilly Airfield



The vegetation appeared to be in good condition.



No erosion of the landfill cap was observed during the inspection.

LANDFILL COVER INSPECTION CHECKLIST ITEMS

Specific Site Identification: McClellan Fill Area North of Landfill 2, Parcel 230(7) **Date:** 11/29/2017

Landfill Cover Survey

1. Observe any areas on the cover that indicate signs of subsidence (e.g., obvious visible low spots on the cover surface where significant amounts of standing water can accumulate in puddles during significant precipitation events).

No evidence of subsidence was observed during the cap inspection.

2. Observe any signs of erosion on the landfill cover (e.g., during windy conditions observe any evidence of dust blowing off of the cover, check for any erosion caused by stormwater runoff). Any exposed debris?

No signs of exposed debris were observed during the inspection.

3. Check the condition of the vegetative cover. (e.g. check for bare spots in the vegetative cover; Note whether no vegetation has grown or whether the vegetation has died and has not been re-established, check for abnormal growth of weeds that may crowd out natural vegetation}.

The vegetative cover was observed to be in good condition during the inspection. No bare areas were observed.

Landfill Monument Benchmark Survey

1. Check the condition of the brass benchmark implanted on the concrete monuments; make sure that the concrete has not deteriorated around the monument foundation and that the etched mark is still visible.

☒ Monument 1, Comments: Good condition, no damage. No digging sign is missing. Replaced during inspection.

☒ Monument 2, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 3, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 4, Comments: Good condition, no damage. No digging sign is missing. Replaced during inspection.

☒ Monument 5, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 6, Comments: Good condition, no damage. No digging sign is missing. Replaced during inspection.

☒ Monument 7, Comments: Good condition, no damage. No digging sign was attached.

☒ Monument 8, Comments: Good condition, no damage. No digging sign was attached.

Inspected by: Jason Tulley

Signature Jason Tulley **Date:** 11/29/17

Photo Log
Annual Cap Inspection
McClellan Fill Area North of Landfill 2



The vegetation across the cap appeared to be in good condition during the inspection.



A small animal hole was observed on the cap surface; however, no exposed trash or debris was observed.



There were three No Digging Signs missing from the boundary monuments. All three were replaced at the time of inspection.

IRON MOUNTAIN ROAD RANGES BMP EROSION CONTROL INSPECTION

Specific Site Identification: Range 12 (Parcel 70Q) Date: March 18, 2017

BMP Inspection

1. Observe any damage to the best management practices (BMPs) or any areas that require repair or replacement.
No damage to the BMPs was observed during the inspection and no additional signs of erosion were observed.

2. Observe any signs of erosion (e.g., during windy conditions observe any evidence of dust blowing, check for any erosion caused by stormwater runoff).
The slope of Range 12 (Parcel 70Q) does show signs of erosion. The slope is very steep and limited in vegetative cover. The existing BMPs help to stabilize the area of erosion and limit the amount of soil that is washed downhill. No sediment was observed leaving the site and no sediment was observed having migrated to the base of the slope during the inspection.

3. Check the condition of the vegetative cover. (e.g. check for bare spots in the vegetative cover; Note whether no vegetation has grown or whether the vegetation has died and has not been re-established,).
The ground surface is covered with deadfall leaves and pine needles. The area is very rocky and thus limited in the amount of vegetation that grows along the slope.

4. General Comments

Due to the steepness of the slope in the southern area of Range 12, it is anticipated that deficiencies in the BMPs may occur in this area over time. Pine trees and other shrub-type vegetation growing below the area of erosion help to mitigate potential runoff leaving the site. Inspections of the BMPs will continue annually at Range 12 (Parcel 70Q) and any necessary repairs made to ensure BMP effectiveness.

Inspected by: Joseph Owens

Signature:  Date: March 18, 2017

Iron Mountain Road Ranges
Range 12 Annual BMP Inspection- March 8, 2017



The BMPs repaired in March of 2015 were observed to be in place and in good condition.



The t-posts located behind the wooden board helps to keep the board in place and helps limit erosion.



Vegetation on the slope of Range 12 is limited to small pine trees and other small woody stemmed plants.



Due to the steepness of the slope, erosion on the face of the slope was observed during the inspection. No soils were observed to have migrated offsite.

Iron Mountain Road Ranges

Range 12 Annual BMP Inspection- March 8, 2017



Pine trees at the base of the slope help to hold the soils in place and limit erosion.

APPENDIX C

**Annual Closure System Report, Landfill 3, Parcel 80(6) and Fill Area Northwest of Reilly
Airfield, Parcel 229(7)**

**2017 Annual Closure System Report
Landfill 3, Parcel 80(6) and
Fill Area Northwest of Reilly Airfield, Parcel 229(7)**

McClellan, Anniston, Alabama

Prepared for:



MCCLELLAN
DEVELOPMENT AUTHORITY

**McClellan Development Authority
McClellan, Anniston, Alabama**

Prepared by:



**Matrix Environmental Services, LLC
283 Rucker St.
Anniston, Alabama 36205**

**January 2018
Revised July 2018**

TABLE OF CONTENTS

LIST OF ATTACHMENTS	I
LIST OF ABBREVIATIONS AND ACRONYMS	II
1.0 INTRODUCTION.....	1-1
2.0 SUMMARY OF INSPECTIONS AND MAINTENANCE ACTIVITIES.....	2-1
2.1 NARRATIVE SUMMARY OF INSPECTIONS	2-1
2.2 NARRATIVE SUMMARY OF MAINTENANCE ACTIVITIES.....	2-1
2.3 ONGOING ACTIVITIES	2-1
2.4 UNRESOLVED 2017 INSPECTION AND MAINTENANCE ISSUES	2-1
2.5 PLANNED ACTIVITIES	2-1
3.0 REFERENCES.....	3-1

LIST OF ATTACHMENTS

Attachment C1 On-Site Inspection and Maintenance Forms

LIST OF ABBREVIATIONS AND ACRONYMS

ADEM	Alabama Department of Environmental Management
CA	Cleanup Agreement AL4210020562
FANWR	Fill Area Northwest of Reilly Airfield, Parcel 229(7)
GeoSyntec	GeoSyntec Consultants
Landfill 3	Landfill 3, Parcel 80(6)
McClellan	Former Fort McClellan
MDA	McClellan Development Authority
MES	Matrix Environmental Services, LLC

1.0 INTRODUCTION

This Annual Closure System Report has been prepared by Matrix Environmental Services, LLC (MES) on behalf of the McClellan Development Authority (MDA) to summarize the results of the post-remediation activities, including closure system inspections and maintenance performed from January 2017 through December 2017 at Landfill 3, Parcel 80(6) (Landfill 3) and Fill Area Northwest of Reilly Airfield, Parcel 229(7) (FANWR) at the former Fort McClellan (McClellan) located in Anniston, Alabama. The closure system inspections and maintenance discussed herein were performed to document compliance with the post closure care program requirements outlined in Section 4.5 and Appendix E of the *Certified for Construction Documents: Final Design Report, Landfill Cover Systems, Landfill 3 and Fill Area Northwest of Reilly Airfield (Final Design Report)* (GeoSyntec Consultants [GeoSyntec], 2007).

The responsible project contacts for the Landfill 3 and FANWR work discussed herein are:

Primary

Joseph Owens
Matrix Environmental Services, LLC
283 Rucker Street, Bldg. 3165
Anniston, AL 36205
(256) 847-0780

Alternate

Robin Scott
McClellan Development Authority
4975 Bains Gap Road
Anniston, AL 36205
(256) 236-2011

2.0 SUMMARY OF INSPECTIONS AND MAINTENANCE ACTIVITIES

In accordance with the requirements of the CA (ADEM, 2014) and the Post Closure Care Plan (GeoSyntec, 2007), inspections were conducted. The 5-year post-closure care period at Landfill 3 and the Fill Area North West of Reilly (FANWR) ended. Inspections had been performed quarterly during that period. The cover systems stabilized, and an abbreviated inspection and maintenance program was presented and approved by ADEM. Landfill cover system inspections were conducted on an annual basis.

2.1 Narrative Summary of Inspections

The site was inspected on November 30, 2017 by Jason Tulley (MES). Overall, the landfill cover systems appeared to be in good, stable condition. No evidence of subsidence or erosion was observed. The vegetation across the caps for Landfill 3 and FANWR was in good condition, and no bare spots were noted. The boundary markers were in good condition. One no digging signs had detached from the boundary markers and were reattached during the inspection. The access roads to Landfill 3 and FANWR were in good condition. Copies of the Inspection and Maintenance Forms are included in Attachment C1.

2.2 Narrative Summary of Maintenance Activities

Maintenance activities performed by MES at Landfill 3 and FANWR during 2017 included the following:

- The area of erosion identified at the base of the centrally located rock chute was repaired in April 2017 by filling the depression with gravel to help stabilize the area and prevent further erosion.
- The cap surfaces for Landfill 3 and FANWR and the detention basin at FANWR were mowed in November 2017.
- The detached or missing signs were replaced when maintenance was performed in November 2017.

2.3 Ongoing Activities

Inspection and maintenance of cap features and erosion and sediment control measures are currently ongoing at Landfill 3 and FANWR.

2.4 Unresolved 2017 Inspection and Maintenance Issues

There were no unresolved inspection and maintenance issues during the time of the inspection.

2.5 Planned Activities

The inspection and maintenance program, consisting of annual mowing with inspection of cover system conditions, will be continued. If maintenance issues are observed during the annual cap inspections, then repair activities will be performed.

3.0 REFERENCES

- ADEM. 2014. In the Matter of: Anniston-Calhoun County Fort McClellan Development Joint Power Authority Facility, Cleanup Agreement No. AL4 210 020 562, Modification 4. February 13.
- GeoSyntec. 2007. *Certified for Construction Documents: Final Design Report, Volume II of IV, Landfill Cover Systems, Landfill 3 and Fill Area Northwest of Reilly Airfield.* February.
- GeoSyntec. 2008. *Final Corrective Measures Implementation Report, Landfill Cover Systems, Landfill 3, Parcel 80(6) and Fill Area Northwest of Reilly Airfield, Parcel 229(7).* April.
- Matrix Environmental Services (MES), 2012. *2011 Annual Closure System Report, Landfill 3, Parcel 80(6) and Fill Area Northwest of Reilly Airfield, Parcel 229(7), McClellan, Anniston, Alabama.* March.
- MES, 2006. *Final (Revision 1) Corrective Measures Implementation Plan Landfill 3 and the Fill Area Northwest of Reilly Airfield Parcels 80(6) and 229(7).* October.

ATTACHMENT C1

On-Site Inspection and Maintenance Forms

ON-SITE INSPECTION AND MAINTENANCE FORM
McCLELLAN SITE
ANNISTON, ALABAMA

Activity Type: Inspection ☒ Maintenance ☐ Incident ☐

Date of Activity: 11/30/17

Time of Activity 07:30


On-Site Personnel: Jason Tulley-Matrix Environmental Services

Weather Conditions: Sunny, 55°F

General Comments: Cap was recently mowed for inspection.

Summary/Action Items: N/A

Inspected by: Jason Tulley Date: 11/29/2017

Reviewed by:  Date: 11/29/2017

ON-SITE INSPECTION AND MAINTENANCE FORM
McCLELLAN SITE
ANNISTON, ALABAMA

LANDFILL 3

Evidence or repair of subsidence, settlement, slippage, or heaving of cap system: No evidence was observed during the inspection.

Evidence or repair of erosion, rutting, or channeling on cap system: No evidence was observed during the inspection.

Condition or repair of vegetated surfaces (bare spots, stressed, dead): The vegetation appeared to be in good condition at the time of the inspection. One small area located near the center of the cap was observed to have patchy vegetation.

Evidence of trespassing, vandalism, or damage: No evidence of trespassing, vandalism, or damage was observed during the inspection.

Evidence of overflowing, flooding, or inundation: No standing water was observed during the inspection

Overall appearance/condition of closure (stability, erosion, inundation, trespassing): The cap was observed to be in good overall condition.

Condition or repair of Permanent Markers: Boundary monuments were in good condition.

Additional Comments: None.

ON-SITE INSPECTION AND MAINTENANCE FORM
McCLELLAN SITE
ANNISTON, ALABAMA

FILL AREA NORTHWEST REILLY AIRFIELD

Evidence or repair of subsidence, settlement, slippage, or heaving of cap system: No evidence of subsidence, settlement, slippage, or heaving of the cap was observed during the inspection.

Evidence or repair of erosion, rutting, or channeling on cap system: No evidence of erosion, rutting, or channeling was observed during the cap inspection.

Condition or repair of vegetated surfaces (bare spots, stressed, dead): The vegetation appeared to be healthy and in good condition at the time of the inspection.

Evidence of trespassing, vandalism, or damage: No evidence of trespassing, vandalism, or damage was observed at the time of the inspection.

Evidence of overflowing, flooding, or inundation: No evidence of overflowing, flooding, or inundation was observed during the inspection.

Overall appearance/condition of closure (stability, erosion, inundation, trespassing): The cap appeared to be in good condition at the time of the inspection. No issues or deficiencies were observed.

Condition or repair of Permanent Markers: The boundary monuments were observed to be in good condition with no damage. One No Digging Sign was damaged. It was replaced at the time of inspection.

Additional Comments: None.

ON-SITE INSPECTION AND MAINTENANCE FORM
McCLELLAN SITE
ANNISTON, ALABAMA

FANWR

SURFACE WATER/SEDIMENT DETENTION POND

Evidence or repair of subsidence, settlement, slippage: No evidence of subsidence, settlement, or slippage was observed during the inspection.

Evidence or repair of erosion, rutting, or channeling: The area of erosion noted last year was repaired. No further problems were observed during the inspection.

Condition or repair of vegetated surfaces (bare spots, stressed, dead): No problems were observed at the time of inspection

Condition of surrounding vegetated surfaces (bare spots, settlement, water ponding): No bare areas or settlement areas were observed on the surrounding vegetation.

Sediment accumulation or removal (cleanout markers): No sediment accumulation was observed at the time of the inspection.

Outfall structures and emergency spillway (debris, erosion, damage): The emergency spillway and outfall structures were observed to be in good condition and showed no signs of damage at the time of the inspection.

Evidence of trespassing, vandalism, or damage: No evidence of trespassing, vandalism, or damage was observed during the inspection.

Additional Comments: None.

ON-SITE INSPECTION AND MAINTENANCE FORM
McCLELLAN SITE
ANNISTON, ALABAMA

ACCESS ROADS AND PARKING AREA

Evidence or repair of subsidence, settlement, or heaving: No evidence was observed during the inspection.

Evidence or repair of erosion, rutting, or washout: No evidence was observed during the inspection.

Condition or repair of culvert crossing and drainage features: The culvert and drainage ditch were in good condition. No sediment accumulation was observed during the inspection.

Evidence of trespassing, vandalism, or damage: No evidence of trespassing, vandalism, or damage was observed during the inspection.

Condition or repair of roads (thin gravel, potholes): The gravel was observed to be in good condition. No potholes or low areas were observed along the road or parking areas during the inspection.

Additional Comments: None.

ON-SITE INSPECTION AND MAINTENANCE FORM
McCLELLAN SITE
ANNISTON, ALABAMA
Landfill 3/FANWR Landfill Cap Inspection



LF3: A small area located near the center of the landfill was observed to have patchy vegetation.



LF3: All monuments and signs were in place at the time of inspection.

ON-SITE INSPECTION AND MAINTENANCE FORM
McCLELLAN SITE
ANNISTON, ALABAMA
Landfill 3/FANWR Landfill Cap Inspection



FANWR: The two rock chutes and vegetation of FANWR were observed to be in good condition at the time of inspection.



FANWR: All boundary monuments were in good condition. One sign was damaged and was replaced at the time of inspection.