

# **FINAL ENVIRONMENTAL ASSESSMENT**

## **Proposed Family Campground Expansion Maxwell Air Force Base Montgomery County, Alabama**



**PROJECT NUMBER: PNQS 11-7019**

**DATE: March 27, 2013**

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>27 MAR 2013</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2013 to 00-00-2013</b>	
4. TITLE AND SUBTITLE <b>Final Environmental Assessment For Proposed Family Campground Expansion Maxwell Air Force Base, Montgomery County, Alabama</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>TTL, Inc.,3516 Greensboro Avenue,Tuscaloosa,AL,35401</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <b>The Proposed Action would improve opportunities for rest and recuperation, as well as temporary housing, for Airmen and their families at the existing FamCamp by: improving the bathing and laundry facilities; improving the indoor and outdoor recreational facilities improving the administration area and increasing the number of camping spaces with utility hook-ups to meet the increasing demand. Under the No-Action Alternative, the current capacity of the FamCamp would remain unchanged, resulting in limited low-cost, temporary housing for AU students; limited laundry and bathroom facilities for the existing tenants; limited revenue for the FamCamp; and limited rest and recuperation resources for airmen and their families.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>127</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

This page left blank intentionally.

---

## List of Acronyms and Abbreviations

42 ABW	42d Air Base Wing
ADEM	Alabama Department of Environmental Management
AETC	Air Education and Training Command
AF	Air Force
AFI	Air Force Instruction
AFPD	Air Force Policy Directive
AICUZ	Air Installation Compatible Use Zone
AQCR	Air Quality Control Region
AU	Air University
BMP	Best Management Practices
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CSE	Comprehensive Site Evaluation
CWA	Clean Water Act
dB	decibel
DNL	Day-Night Level
DoD	Department of Defense
DRMO	Defense Reutilization Marketing Office
EA	Environmental Assessment
EESOH-MIS	Enterprise Environmental Safety and Occupational Health Management Information System
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EISA	Energy Independence Security Act
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
FamCamp	Family Campground
FEMA	Federal Emergency Management Agency
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
HQ	Head Quarters
ICSM	Interim Conceptual Site Models
IICEP	Interagency Intergovernmental Coordination of Environmental Planning
MAFB	Maxwell Air Force Base
MD	Munitions Debris

---



MEC	Munitions and Explosives of Concern
MGD	Million gallons per day
MRP	Munitions Response Sites
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFA	No Further Action
NFRAP	No Further Remediation Action Plan
NPDES	National Pollutant Discharge Elimination System
NO <sub>x</sub>	nitrogen oxide
OSHA	Occupational Safety and Health Act
Pb	lead
PM	particulate matter
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
sf	square feet
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
USGS	United States Geological Survey
USAF	United States Air Force
USC	United States Code

**FINAL FINDING OF NO SIGNIFICANT IMPACT  
FINAL FINDING OF NO PRACTICABLE ALTERNATIVE  
PROPOSED FAMILY CAMPGROUND EXPANSION  
MAXWELL AIR FORCE BASE, ALABAMA**

**Agency:** United States Air Force (USAF), Air Education and Training Command (AETC), 42d Air Base Wing (ABW)

**Background:** The United States Air Force (USAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). The Air Education and Training Command (AETC) and the 42d Air Base Wing (ABW) propose to improve and expand the facilities at the existing Family Campground (FamCamp) at Maxwell Air Force Base (AFB). Improved facilities are needed to support the increasing demand for camping spaces and associated amenities. The Proposed Action would improve opportunities for rest and recuperation, as well as temporary housing, for Airmen and their families at the existing FamCamp.

**Proposed Action and Alternatives:** Under the Proposed Action, the improvements would occur within the previously disturbed areas of the FamCamp area, which is located in the southwest portion of Maxwell AFB (see Figure 1). The Proposed Action includes the following tasks:

Task 1 includes replacing an existing temporary modular bath house with a permanent bath house and laundry room. The proposed action would include demolishing the temporary structure; removing the existing septic tank; and constructing a permanent facility. The new facility would be located outside the 100-year flood zone and tie in to the existing sanitary sewer line.

Task 2 includes a major renovation of the existing concrete bath house located near the existing administrative building at the northern end of FamCamp, and is outside the 100-year flood zone. Renovations would include reconfiguring the stalls, upgrading the plumbing, fixtures, lighting, flooring and electrical system.

Task 3 includes constructing a new boat dock, fishing pier and aeration fountains to the existing ponds. Constructing a fishing pier and boat dock would provide visitors an easy and safe access to deeper water.

Task 4 includes expanding existing administrative and recreation facilities. The new facility would combine administrative offices with a community meeting room or indoor recreational space and would be located at the northwest end of the existing FamCamp area outside the 100-year flood zone.

Task 5 includes reconfiguring seven existing trailer pads near the southeastern corner of the southern lake, resulting in 13 trailer pads within the same footprint. Some of the proposed trailer pads would be located within the 100-year flood zone. A new gravel access road would also be constructed to improve vehicle access along the western side of the new pads.

Task 6 includes constructing twelve trailer pads along the southwestern portion of the property. This would include widening an existing access road, constructing a new gravel access road and improving an existing gravel drive. Improvements in this area would also include a new bathhouse and laundry facility; a picnic pavilion; a dumpster pad and two playground areas. The

additional bath house and laundry facility would be located outside the 100-year flood zone at the southern end of the existing FamCamp area. Unenclosed, unoccupied structures such as trailer pads, pavilions, and playgrounds may be located within the flood zone.

Task 7 includes creating new camping spaces on the east side of March Road, just north of the existing ball fields. The new camping spaces would provide 12 full utility hook-ups and a new gravel access road east of March Road.

#### Summary of Findings for Proposed Action:

Resource Area	Proposed Action	No-Action Alternative
Air Quality	<b>Not Significant.</b> The Proposed Action would generate increased dust and air emissions due to construction related activities. These temporary emissions would not cause a significant effect.	<b>No Effect.</b> There would be no change to the existing conditions.
Hazardous Materials and Waste	<p><b>Not Significant.</b> There are Environmental Restoration Program (ERP) sites near the Project Area. Soil sampling showed that PAHs in surface and subsurface soil pose a risk above the ADEM target cancer risk criteria for residential areas, site workers, and recreational use.</p> <p>The MMRP (Military Munitions Response Program) has initiated a Feasibility Study to address possible remediation. The construction contractor would perform work under a site-specific plan that would be approved by 42 CES/CEAN, 42 CES/CEV and ADEM, prior to start of construction. Any additional construction to be carried out before the MMRP remediation is complete would also need a work plan and ADEM approval.</p> <p>No significant effect would be expected.</p>	<b>No Effect.</b> Remediation activities within ERP sites would continue under the No-Action Alternative.
Noise	<b>Not Significant.</b> Short-term construction related noise would not interfere with normal activities within the local area. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.

Resource Area	Proposed Action	No-Action Alternative
Socioeconomics, Environmental Justice and Protection of Children	<b>Beneficial Effect.</b> Construction of the Proposed Action and a slight increase in fees collected would have a slight beneficial impact on the socioeconomic environment at MAFB. The increased availability of low-cost temporary housing opportunities would provide a beneficial effect for AU students. No adverse impacts are expected for minority or low-income populations or children.	<b>Not Significant.</b> The No-Action Alternative would prevent the addition of low-cost temporary housing for AU students.
Soils	<b>Not Significant.</b> The Proposed Action would create temporary soil disturbance during construction. Appropriate best management practices would be implemented during construction. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Transportation	<b>Not Significant.</b> The FamCamp is located in an area with a low traffic volume. During construction, localized traffic would increase. During the operation of the Proposed Action, some increase would be expected. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Utilities	<b>Not Significant.</b> The Proposed Action would result in an increased demand for all utility services. However, there is currently sufficient capacity to provide for the increased demand. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Water Resources	<b>Not Significant.</b> Surface waters would be protected from potential run-off associated with construction activities by the use of perimeter controls and other measures. Some of the proposed actions would include activities (non-occupied structures) within the 100-year floodplain and a pond. Unenclosed, unoccupied structures such as trailer pads, pavilions, and playgrounds may be located within the flood zone. CWA permits would be obtained through the U.S. Army Corps of Engineers prior to any site-disturbing activity that would impact Waters of the U.S. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.

### Summary of Findings for Cumulative Effects:


Resource Area	Cumulative Effects
Air Quality	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously and would vary in duration. With proper controls these temporary emissions would not cause a significant effect on air quality at MAFB. When considered with other known projects, no significant cumulative effects are likely.
Hazardous Materials and Waste	<b>Not Significant.</b> Multiple ERP remediation projects are likely to occur simultaneous with the Proposed Action. All ERP remediation activities would have a beneficial effect on the management of hazardous materials and wastes. The large-quantity generator status would not change. When considered with other known projects, no significant cumulative effects are likely.
Noise	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously and would vary in duration. All construction activity would be limited to business hours and would not disrupt normal activities. When considered with other known projects, no significant cumulative effects are likely.
Socioeconomics, Environmental Justice and Protection of Children	<b>Not Significant.</b> Short-term improvements would be expected resulting from various construction-related jobs that would occur simultaneous with the Proposed Action. Long-term improvements would include a slight increase in revenue at the FamCamp and an increase in affordable temporary housing for AU students. No adverse impacts are expected for minority or low-income populations or children. When considered with other known projects, no significantly adverse effects are likely.
Soils	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously and would vary in the extent of soil disturbance. Proper construction best management practices would be implemented on all projects, in accordance with ADEM standards. When considered with other known projects, no significant cumulative effects are likely.
Transportation	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously, potentially causing temporary traffic delays and inefficiencies within or around MAFB. Since the traffic delays would be temporary and short-term, when considered with other known projects, no significant cumulative effects are likely.
Utilities	<b>Not Significant.</b> Following the completion of identified projects, an increase in utility demand is likely. However, the utility providers currently have the capacity for the increased demand while maintaining regulatory compliance and minimal disruption to existing clients within MAFB and the surrounding areas. When considered with other known projects, no significant cumulative effects are likely.

Resource Area	Cumulative Effects
Water Resources	<b>Not Significant.</b> Surface waters would be protected from potential run-off associated with construction activities by the use of perimeter controls and other measures. Some of the proposed actions would include activities (non-occupied structures) within the 100-year floodplain and a pond. Structures within the floodplain would not be occupied. Unenclosed, unoccupied structures such as trailer pads, pavilions, and playgrounds may be located within the flood zone. CWA permits would be obtained through the U.S. Army Corps of Engineers prior to any site-disturbing activity that would impact Waters of the U.S. Therefore, no cumulative effects are likely for water resources.

**No-Action Alternative:** Under the No-Action Alternative, the current capacity of the FamCamp would remain unchanged, resulting in limited low-cost, temporary housing for AU students; limited laundry and bathroom facilities for the existing tenants; limited revenue for the FamCamp; and limited rest and recuperation resources for airmen and their families.

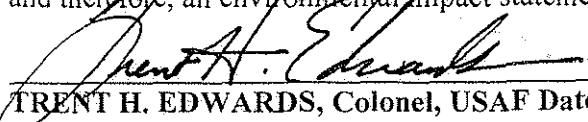
**Summary of Public Review and Interagency Coordination:** No public comments were received. Interagency response included general concurrence with the Proposed Action.

**Finding of No Practicable Alternative:** Pursuant to Executive Order 11988 and taking the supporting information into consideration; I find that the Proposed Action evaluated in the accompanying EA, which includes the expansion of the Family Campground facilities within a 100-year floodplain, includes all practicable measures to minimize harm to the existing environment. Because of limited space within MAFB, the Proposed Action must occur within the FamCamp; however, no enclosed or occupied structures would be constructed within the floodplain. Therefore, I find that there is no practicable alternative to locating the expansion within the 100-year floodplain.

  
**JAMES E. FITZPATRICK, GS-15, P.E., CFM**  
 Chief, Engineering Division  
 HQ AETC (A7N)  
 JBSA, Randolph TX

27 MAR 2013  
 Date

**Finding of No Significant Impact:** I have reviewed the facts and analysis in the accompanying EA, which has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), regulations promulgated by the President's Council on Environmental Quality (CEQ), and Title 32 Code of Federal Regulations Par 989. I conlude that the Proposed Action will not have a significant direct, indirect or cumulative impact upon the environment, and therefore, an environmental impact statement is not required.

  
**TRENT H. EDWARDS, Colonel, USAF** Date  
 Commander, 42d Air Base Wing

19 MAR 13  
 Date

This page left blank intentionally.

---



**COVER SHEET**  
**FINAL ENVIRONMENTAL ASSESSMENT FOR**  
**PROPOSED FAMILY CAMPGROUND EXPANSION**  
**MAXWELL AIR FORCE BASE, MONTGOMERY COUNTY, ALABAMA**

**Responsible Agency:** Department of the Air Force

**Contact for Further Information:** Jeff Jones, CSP, CHMM, CHST  
ESH Manager  
ITT Exelis, Mission Systems  
42 CES/CEV

**Proposed Action and Location:** The Air Education and Training Command (AETC) and the 42d Air Base Wing (ABW) propose to improve and expand the facilities at the existing Family Campground (FamCamp) at Maxwell Air Force Base (AFB). Improved facilities are needed to support the increasing demand for camping spaces and associated amenities.

**Designation:** Final Environmental Assessment

**Abstract:** The Proposed Action would improve opportunities for rest and recuperation, as well as temporary housing, for Airmen and their families at the existing FamCamp by: improving the bathing and laundry facilities; improving the indoor and outdoor recreational facilities; improving the administration area and increasing the number of camping spaces with utility hook-ups to meet the increasing demand.

Under the No-Action Alternative, the current capacity of the FamCamp would remain unchanged, resulting in limited low-cost, temporary housing for AU students; limited laundry and bathroom facilities for the existing tenants; limited revenue for the FamCamp; and limited rest and recuperation resources for airmen and their families.

---

### **PRIVACY ADVISORY NOTICE**

Public comments on this Environmental Assessment (EA) were requested pursuant to the National Environmental Policy Act, 42 United States Code 4321, *et seq.* All written comments received during the comment period will be made available to the public and considered during Final EA preparation. Providing private address information with your comment is voluntary and such personal information will be kept confidential unless release is required by law. However, address information will be used to compile the project mailing list and failure to provide it will result in your name not being included on the mailing list.

This page left blank intentionally.

---

## EXECUTIVE SUMMARY

### **Purpose and Need:**

The purpose of the proposed action is to improve opportunities for rest and recuperation for Airmen and their families at the existing FamCamp by: improving the bathing and laundry facilities; improving the indoor and outdoor recreational facilities; improving the administration area; and increasing the number of camping spaces with utility hook-ups to meet the increasing demand.

The FamCamp was constructed about 50 years ago and has experienced multiple renovations over the years. Recent renovations include an expansion in 2008 that added 14 pads and an expansion in 2011 that added 13 pads. With each expansion, the visitor demand and occupancy increased to near capacity in a relatively short period of time. The average current occupancy is around 85-87% with an occasional waiting list during peak seasons. The length of stay at the FamCamp varies: retirees are allowed up to 3 months; active duty allowed up to 6 months; and participants in AU allowed up to 11 months.

The current bathhouses and laundry facilities are aging and in need of repair or replacement. There are not enough trailer pads, bathroom facilities, laundry facilities, parking spaces, and playground areas to serve the existing volume of visitors. Many similar facilities include a community meeting room or indoor recreational space; however, there is not enough space in the existing administrative building to accommodate that need. Additionally, access to the ponds for fishing is increasingly limited due to a combination of shoreline erosion and an increase in near-shore vegetation, often exposing visitors to trip hazards, snakes and other reptiles while fishing from the shoreline.

### **Description of Proposed Action and Environmental Consequences**

The proposed action includes improvements to the FamCamp as described below.

Task 1 includes replacing an existing temporary modular bath house with a permanent bath house and laundry room; demolishing the temporary structure; removing the existing septic tank; constructing a permanent facility; and connecting to the existing sanitary sewer line. The new facility would be located outside the 100-year flood zone and tie in to the existing sanitary sewer line.

Task 2 includes a major renovation of the existing concrete bath house located near the existing administrative building at the northern end of FamCamp, and is outside the 100-year flood zone.

Task 3 includes constructing a new boat dock, fishing pier and aeration fountains to the existing ponds.

Task 4 includes expanding existing administrative and recreation facilities and would be located at the northwest end of the existing FamCamp area outside the 100-year flood zone.

Task 5 includes reconfiguring seven existing trailer pads near the southeastern corner of the southern lake, resulting in 13 trailer pads within the same footprint, and constructing a new gravel access road. Some of the proposed trailer pads would be located within the 100-year flood zone.

---

Task 6 includes constructing 12 trailer pads along the southwestern portion of the property; widening an existing access road; constructing a new gravel access road and improving an existing gravel drive; constructing a new bathhouse and laundry facility; and constructing a picnic pavilion; a dumpster pad and two playground areas. The additional bath house and laundry facility would be located outside the 100-year flood zone at the southern end of the existing FamCamp area. Unenclosed, unoccupied structures such as trailer pads, pavilions, and playgrounds may be located within the flood zone.

Task 7 includes creating new camping spaces on the east side of March Road, providing 12 full utility hook-ups and a new gravel access road east of March Road.

Under the No-Action Alternative, the current capacity of the FamCamp would remain unchanged, resulting in limited low-cost, temporary housing for AU students; limited laundry and bathroom facilities for the existing tenants; limited revenue for the FamCamp; and limited rest and recuperation resources for airmen and their families.

### Environmental Consequences

Resource Area	Proposed Action	No-Action Alternative
Air Quality	<b>Not Significant.</b> The Proposed Action would generate increased dust and air emissions due to construction related activities. These temporary emissions would not cause a significant effect.	<b>No Effect.</b> There would be no change to the existing conditions.
Hazardous Materials and Waste	<b>Not Significant.</b> There are Environmental Restoration Program (ERP) sites near the Project Area. Soil sampling showed that PAHs in surface and subsurface soil pose a risk above the ADEM target cancer risk criteria for residential areas, site workers, and recreational use.  The MMRP (Military Munitions Response Program) has initiated a Feasibility Study to address possible remediation. The construction contractor would perform work under a site-specific plan that would be approved by 42 CES/CEAN, 42 CES/CEV and ADEM, prior to start of construction. Any additional construction to be carried out before the MMRP remediation is complete would also need a work plan and ADEM approval.  No significant effect would be expected.	<b>No Effect.</b> Remediation activities within ERP sites would continue under the No-Action Alternative.

Resource Area	Proposed Action	No-Action Alternative
Noise	<b>Not Significant.</b> Short-term construction related noise would not interfere with normal activities within the local area. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Socioeconomics, Environmental Justice and Protection of Children	<b>Beneficial Effect.</b> Construction of the Proposed Action and a slight increase in fees collected would have a slight beneficial impact on the socioeconomic environment at MAFB. The increased availability of low-cost temporary housing opportunities would provide a beneficial effect for AU students. No adverse impacts are expected for minority or low-income populations or children.	<b>Not Significant.</b> The No-Action Alternative would prevent the addition of low-cost temporary housing for AU students.
Soils	<b>Not Significant.</b> The Proposed Action would create temporary soil disturbance during construction. Appropriate best management practices would be implemented during construction. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Transportation	<b>Not Significant.</b> The FamCamp is located in an area with a low traffic volume. During construction, localized traffic would increase. During the operation of the Proposed Action, some increase would be expected. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Utilities	<b>Not Significant.</b> The Proposed Action would result in an increased demand for all utility services. However, there is currently sufficient capacity to provide for the increased demand. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.

Resource Area	Proposed Action	No-Action Alternative
Water Resources	<b>Not Significant.</b> Surface waters would be protected from potential run-off associated with construction activities by the use of perimeter controls and other measures. Some of the proposed actions would include activities (non-occupied structures) within the 100-year floodplain and a pond. Unenclosed, unoccupied structures such as trailer pads, pavilions, and playgrounds may be located within the flood zone. CWA permits would be obtained through the U.S. Army Corps of Engineers prior to any site-disturbing activity that would impact Waters of the U.S. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.



This page left blank intentionally.

---

## TABLE OF CONTENTS

<b>1.0</b>	<b>PURPOSE AND NEED FOR THE PROPOSED ACTION.....</b>	<b>1-1</b>
1.1	Introduction.....	1-1
1.2	Background.....	1-1
1.3	Purpose of the Proposed Action.....	1-3
1.4	Need for the Proposed Action.....	1-4
1.5	Location of the Proposed Action .....	1-4
1.6	Decision and Decision Maker.....	1-4
1.7	Scope of Environmental Review .....	1-6
1.8	Interagency and Intergovernmental Coordination .....	1-6
1.9	Applicable Regulatory Requirements .....	1-7
1.10	Organization of the Document.....	1-8
<b>2.0</b>	<b>DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES .....</b>	<b>2-1</b>
2.1	Proposed Action.....	2-1
2.2	Alternatives Considered but Eliminated from Further Analysis.....	2-3
<b>3.0</b>	<b>AFFECTED ENVIRONMENT .....</b>	<b>3-1</b>
3.1	Air Quality .....	3-2
3.1.1	Resource Definition .....	3-2
3.1.2	Existing Conditions.....	3-3
3.2	Hazardous Materials and Wastes .....	3-3
3.2.1	Resource Definition .....	3-3
3.2.2	Existing Conditions.....	3-4
3.3	Noise .....	3-10
3.3.1	Resource Definition .....	3-10
3.3.2	Existing Conditions.....	3-10
3.4	Socioeconomics, Environmental Justice and Protection of Children .....	3-10
3.4.1	Resource Definition .....	3-10
3.4.2	Existing Conditions.....	3-11
3.5	Soils .....	3-11
3.5.1	Resource Definition .....	3-11
3.5.2	Existing Conditions.....	3-12
3.6	Transportation .....	3-12
3.6.1	Resource Definition .....	3-12
3.6.2	Existing Conditions.....	3-12
3.7	Utilities .....	3-13
3.7.1	Resource Definition .....	3-13
3.7.2	Existing Conditions.....	3-13
3.8	Water Resources .....	3-13
3.8.1	Resource Definition .....	3-13
3.8.2	Existing Conditions.....	3-15
<b>4.0</b>	<b>ENVIRONMENTAL CONSEQUENCES .....</b>	<b>4-1</b>
4.1	Air Quality .....	4-3
4.1.1	Analysis Approach.....	4-3
4.1.2	Proposed Action.....	4-3
4.1.3	No-Action Alternative .....	4-3
4.2	Hazardous Materials and Waste.....	4-4
4.2.1	Analysis Approach.....	4-4

---

4.2.2	Proposed Action.....	4-4
4.2.3	No-Action Alternative .....	4-5
4.3	Noise .....	4-5
4.3.1	Analysis Approach.....	4-5
4.3.2	Proposed Action.....	4-5
4.3.3	No-Action Alternative .....	4-6
4.4	Socioeconomics, Environmental Justice and Protection of Children .....	4-8
4.4.1	Analysis Approach.....	4-8
4.4.2	Proposed Action.....	4-8
4.4.3	No-Action Alternative .....	4-8
4.5	Soils .....	4-8
4.5.1	Analysis Approach.....	4-8
4.5.2	Proposed Action.....	4-9
4.5.3	No-Action Alternative .....	4-9
4.6	Transportation.....	4-9
4.6.1	Analysis Approach.....	4-9
4.6.2	Proposed Action.....	4-9
4.6.3	No-Action Alternative .....	4-10
4.7	Utilities .....	4-12
4.7.1	Analysis Approach.....	4-12
4.7.2	Proposed Action.....	4-12
4.7.3	No-Action Alternative .....	4-12
4.8	Water Resources .....	4-12
4.8.1	Analysis Approach.....	4-12
4.8.2	Proposed Action.....	4-12
4.8.3	No-Action Alternative .....	4-13
<b>5.0</b>	<b>OTHER CONSIDERATIONS.....</b>	<b>5-1</b>
5.1	Cumulative Effects Analysis Approach.....	5-1
5.2	Current and Reasonably Foreseeable Actions within the ROI .....	5-1
5.3	Potentially Affected Resources.....	5-3
5.3.1	Irreversible and Irrecoverable Commitment of Resources.....	5-4
5.3.2	Relationship of Short-term Uses and Long-term Productivity .....	5-5
<b>6.0</b>	<b>REFERENCES.....</b>	<b>6-1</b>
6.1	List of Preparers.....	6-1
6.2	Documents and Publications.....	6-1

## FIGURES

Figure 1 - 1:	Regional Location .....	1-2
Figure 1 - 2:	Location of Proposed Action .....	1-5
Figure 2 - 1:	Location of Proposed Action Tasks .....	2-4
Figure 3 - 1:	Soil Sample Locations at the FamCamp .....	3-7
Figure 3 - 2:	Map of MRS locations at the FamCamp.....	3-8
Figure 3 - 3:	Maxwell ERP Site Locations .....	3-9
Figure 4 - 1:	Noise Contours Near the Proposed Action .....	4-7
Figure 4 - 2:	Roadways in the Vicinity of the Proposed Action .....	4-11
Figure 4 - 3:	Floodplain Contours.....	4-14

## TABLES

Table 3.1: Resources Dismissed from Further Analysis .....	3-1
Table 3.2: Description of ERP Sites Within or Near the FamCamp .....	3-5
Table 4.1: Comparison of Environmental Consequences .....	4-1
Table 5.1: Summary of Potential Cumulative Effects .....	5-3

## APPENDICES

Appendix A	Interagency and Intergovernmental Coordination for Environmental Projects (IICEP) Correspondence
Appendix B	Public Involvement

## **1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION**

### **1.1 Introduction**

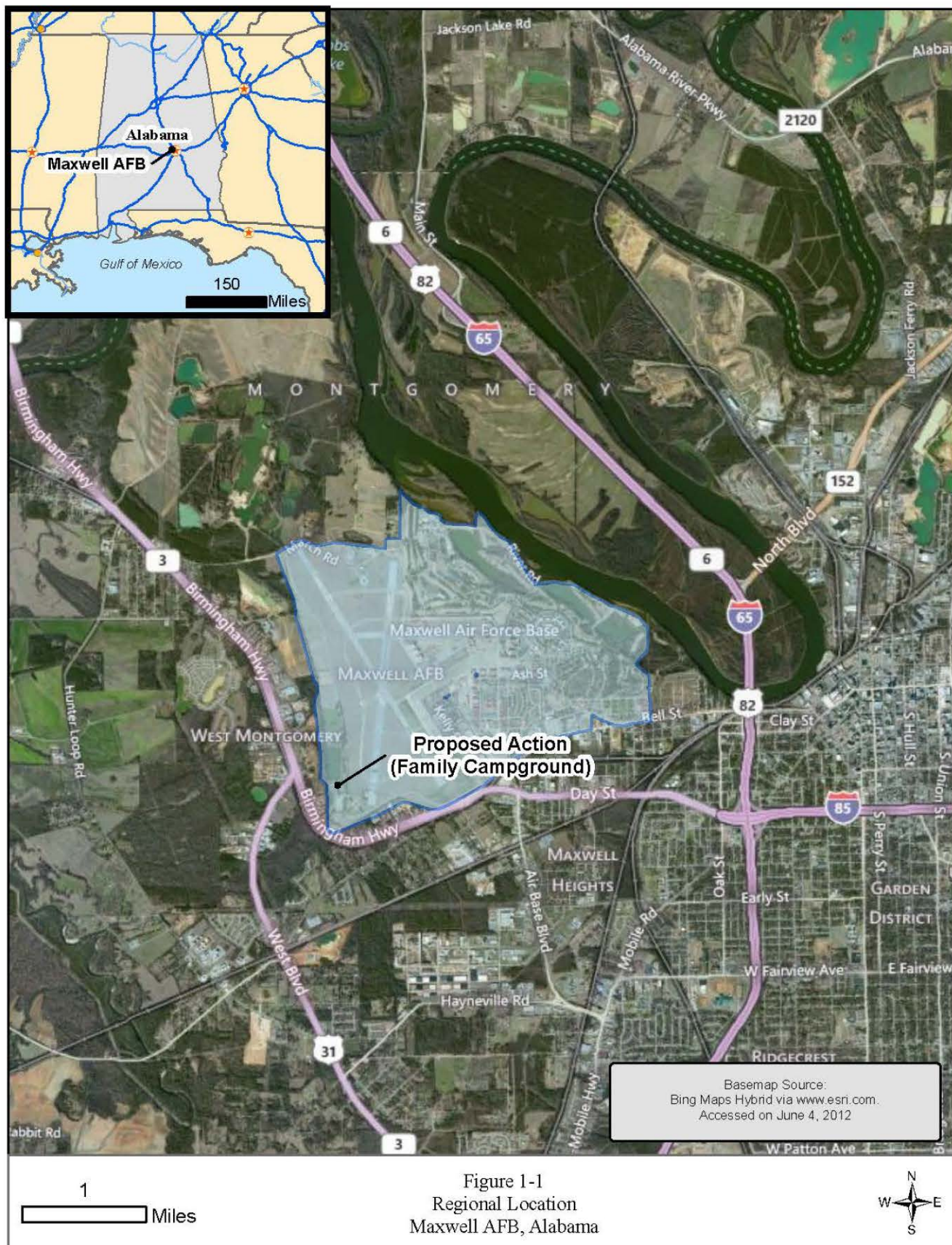
This Environmental Assessment (EA) examines the potential impacts to the natural and human environment resulting from the proposed improvements and expansion within approximately 25 acres at the family camping area and its associated recreational facilities at Maxwell Air Force Base (MAFB) in Montgomery County, Alabama (see Figure 1-1). This EA has been conducted in accordance with the President's Council on Environmental Quality (CEQ) regulations, Title 40 of the Code of Federal Regulations (CFR) §1500-1508, as they implement the requirements of the National Environmental Policy Act (NEPA), 42 United States Code (USC) §4321, *et seq.*, and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process* (EIAP), as promulgated in 32 CFR Part 989. 32 CFR 989 addresses implementation of NEPA and directs Air Force (AF) officials to consider environmental consequences as part of the planning and decision making process. These regulations require federal agencies to analyze the potential environmental impacts of the Proposed Action and No-Action Alternatives and to use these analyses in making decisions on a proposed action. Cumulative effects of other ongoing activities also must be assessed in combination with the Proposed Action. The CEQ (CFR1508.9), instituted to oversee federal policy in this process, declares that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).
- Aid in an agency's compliance with NEPA when an EIS is not necessary and facilitate preparation of an EIS when necessary.

### **1.2 Background**

The 42d Air Base Wing (42 ABW) is the host unit for MAFB and provides essential support for Air University (AU) and a host of other units. The 42 ABW ensures Airmen are ready to deploy in support of U.S. military operations worldwide and takes a proactive approach to promoting their professional and personal growth. The 42d Force Support Squadron operates a recreational area, Family Campground (FamCamp) on MAFB consisting of 72 full hook-up sites [concrete





trailer pads (some with covered picnic areas), connection to electricity, water, and sewer]; four overflow sites with access only to power and water; two bathhouses with laundry facilities; and open space for tent camping as well as an outdoor playground area for children. In some cases the visitors are accompanied by their families and in other cases the visitors are unaccompanied.

The FamCamp provides a relaxed and natural environment with opportunities for quiet reflection while fishing on either of the two lakes. These resiliency and regeneration opportunities provided by the FamCamp are an integral part of supporting personal growth for Airmen and their families.



Shaded camp sites with covered picnic areas.

### **1.3 Purpose of the Proposed Action**

The purpose of the proposed action is to improve opportunities for rest and recuperation for Airmen and their families at the existing FamCamp by improving the bathing and laundry facilities; improving the indoor and outdoor recreational facilities; improving the administration area and increasing the number of camping spaces with utility hook-ups to meet the increasing demand.

The FamCamp was constructed about 50 years ago and has experienced multiple renovations over the years. Recent renovations include an expansion in 2008 that added 14 pads and an expansion in 2011 that added 13 pads. With each expansion, the visitor demand and occupancy increased to near capacity in a relatively short period of time. The average current occupancy is around 85-87% with an occasional waiting list during peak seasons. The length of stay at the FamCamp varies: retirees are allowed up to 3 months; active duty allowed up to 6 months; and participants in AU allowed up to 11 months.



## 1.4 Need for the Proposed Action

The current bathhouses and laundry facilities are aging and in need of repair or replacement. There are not enough trailer pads, bathroom facilities, laundry facilities, parking spaces, and playground areas to serve the existing volume of visitors. Many similar facilities include a community meeting room or indoor recreational space; however there is not enough space in the existing administrative building to accommodate that need. Additionally, access to the ponds for fishing is increasingly limited due to a combination of shoreline erosion and an increase in near-shore vegetation, often exposing visitors to trip hazards, snakes and other reptiles while fishing from the shoreline.

During times of natural disasters, such as hurricane evacuation or tornado recovery, demand for camping space is high and many campers have been turned away. In addition, various federal agencies utilize these facilities for temporary housing of emergency assistance personnel or displaced citizens.



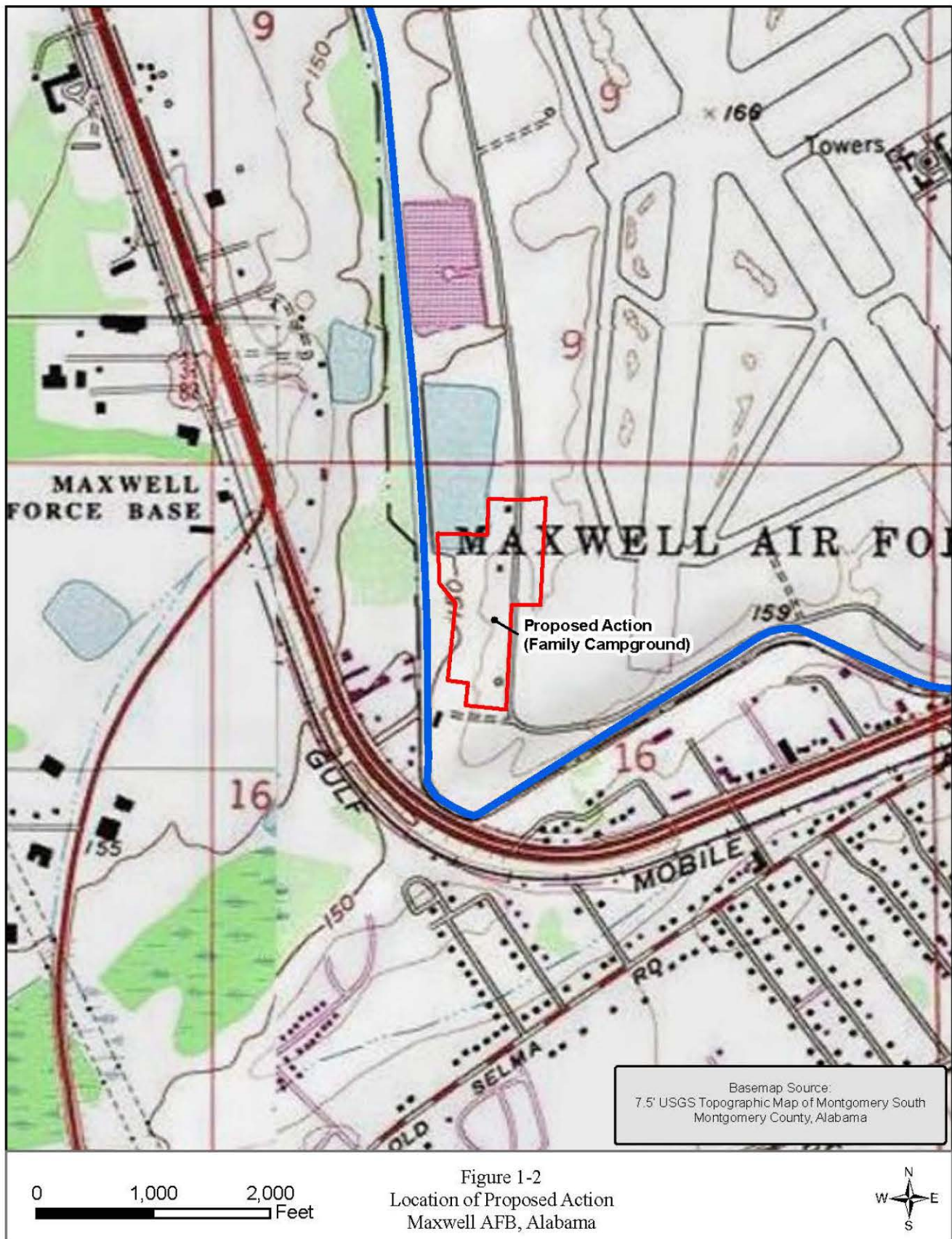
Current administration building.

## 1.5 Location of the Proposed Action

The proposed action is located within or adjoining the existing FamCamp on MAFB. The FamCamp is located on March Road, in the southwestern portion of MAFB, within Section 16, Township 16 North, Range 17 East, as depicted on the 7.5' U.S. Geologic Survey (USGS) Topographic Map of Montgomery South, Montgomery County, Alabama (see Figure 1-2).

## 1.6 Decision and Decision Maker

The decision to be made is whether to improve existing and provide additional facilities at the MAFB FamCamp. If the proposed action is approved, and the determination is made that the proposed action would have no significant effect on the existing natural and human environment,



the 42 ABW Wing Commander would sign the FONSI. Since some of the proposed activities would occur within a floodplain, a Finding of No Practicable Alternative (FONPA) would be signed by the Air Education and Training Command (AETC).

## **1.7 Scope of Environmental Review**

The following resources were evaluated in sufficient detail to determine whether the proposed action or the no-action alternative would cause an impact. A description of affected resources can be found in Chapter 3.

- Air Quality
- Biological Resources
- Cultural Resources
- Geological Resources
- Hazardous Materials and Wastes
- Land Use
- Noise
- Safety and Occupational Health
- Socioeconomic and Environmental Justice
- Transportation and Circulation
- Utilities
- Water Resources

A description of the potential direct and indirect effects of the proposed action and the no-action alternative can be found in Chapter 4. A description of the potential cumulative effects of the proposed action and the no-action alternative can be found in Chapter 5.

## **1.8 Interagency and Intergovernmental Coordination**

Executive Order (EO) 12372, as implemented by AFI 32-7060, requires federal agencies to coordinate actions that may have an effect on other federal, local, state and tribal agencies. Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) letters were sent to agencies with regulatory oversight of resource that may be affected by the proposed action (see Appendix A).

## 1.9 Applicable Regulatory Requirements

The following regulatory requirements have been considered in the analysis of potential impacts:

- NEPA of 1969 and CEQ Implementing Regulations
- Federal Clean Air Act (CAA), as amended in 1990 (81 United States Code [USC]. 7401 Et. Seq.)
- Federal Clean Water Act (CWA) (33 USC 1251 et seq., June 30, 1948, as amended Feb. 4, 1987)
- 32 CFR 989, EIAP
- AFI 32-7060, (IICEP)
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12372, Intergovernmental Review of Federal Programs
- EO 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, as amended by EO 13229 and EO 13296.
- EO 13405 Protection of Children from Environmental Health Risks and Safety Risks
- Energy Independence and Security Act (EISA)
- Endangered Species Act (ESA) (Title 16, USC 1531-1544, Dec. 28, 1973 as amended)
- Integrated Cultural Resources Management Program (AFI 32-7065)
- National Historic Preservation Act (16 USC, Section 470 et seq., Oct. 15, 1966 as amended)
- Archaeological Resources Protection Act (16 USC, Section 470, Oct. 31, 1979 as amended)
- Consultation and Coordination With Indian Tribal Governments (EO 13175, Nov 6, 2000)
- Native American Graves Protection and Repatriation Act of 1991 (25 USC 3001 et seq., Nov. 16, 1990 as amended)
- Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898, Feb. 11, 1994)
- Hazardous Materials Management (AFI 32-7086, Nov. 1, 2004 with AETC Supplement June 22, 2007)



## **1.10 Organization of the Document**

This EA is organized into the following chapters:

- Chapter 1 Purpose and Need for the Proposed Action
- Chapter 2 Description of the Proposed Action and Alternatives
- Chapter 3 Affected Environments
- Chapter 4 Environmental Consequences
- Chapter 5 Cumulative Effects
- Chapter 6 References

## 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

### 2.1 Proposed Action

The following tasks would take place within the existing FamCamp property over the next ten years, as funding becomes available (see Figure 2-1).

Task 1 includes replacing an existing temporary modular bath house with a permanent bath house and laundry room. The current structure includes four private baths and a community laundry room with three washers and dryers. This structure was installed in 2009 as a temporary structure, along with a septic tank which has since been disconnected. The proposed action would include demolishing the temporary structure; removing the existing septic tank; and constructing a permanent facility. The new facility would be in the same location



Existing temporary bath and laundry facility (Task 1).

as the temporary bath house, and would be outside the 100-year flood zone. The new facility would tie in to the existing sanitary sewer line. All necessary supporting structures, equipment, and utilities would also be included.

Task 2 includes a major renovation of the existing concrete bath house which was constructed in 1977. This facility is located near the existing administration building at the northern end of FamCamp, and is outside the 100-year flood zone. Renovations would



Existing concrete block bath house (Task 2).

include reconfiguring the stalls, upgrading the plumbing, fixtures, lighting, flooring and electrical system.

Task 3 includes constructing a new boat dock, fishing pier and aeration fountains to the existing ponds. Access to the ponds for fishing is increasingly limited due to a combination of shoreline erosion and an increase in near-shore vegetation. Visitors who fish in the southern pond must make their way along the eroded shoreline and through the vegetation, often encountering trip hazards, snakes or other reptiles. Constructing a fishing pier and boat dock would provide visitors an easy and safe access to deeper water.



Current fishing access at southern pond (Task 3).

Task 4 includes expanding existing administrative and recreation facilities. The current facility does not provide space for community meetings or indoor recreation. The new facility would combine administrative offices with a community meeting room or indoor recreational space. The proposed new facility would be located at the northwest end of the existing FamCamp area outside the 100-year flood zone.

Task 5 includes reconfiguring seven existing trailer pads near the southeastern corner of the southern lake. These pads and utility hook-ups are currently configured at odd angles. Removing these pads and reconfiguring the utility hook-ups would allow 13 pads with full utility hook-ups to be created within the same footprint. Some of the proposed trailer pads would be located



Trailer pads with odd angles (Task 5).



within the 100-year flood zone. A new gravel access road would also be constructed to improve vehicle access along the western side of the new pads. All necessary supporting structures, equipment, and utilities would also be included.



Site for twelve new trailer pads (Task 6).

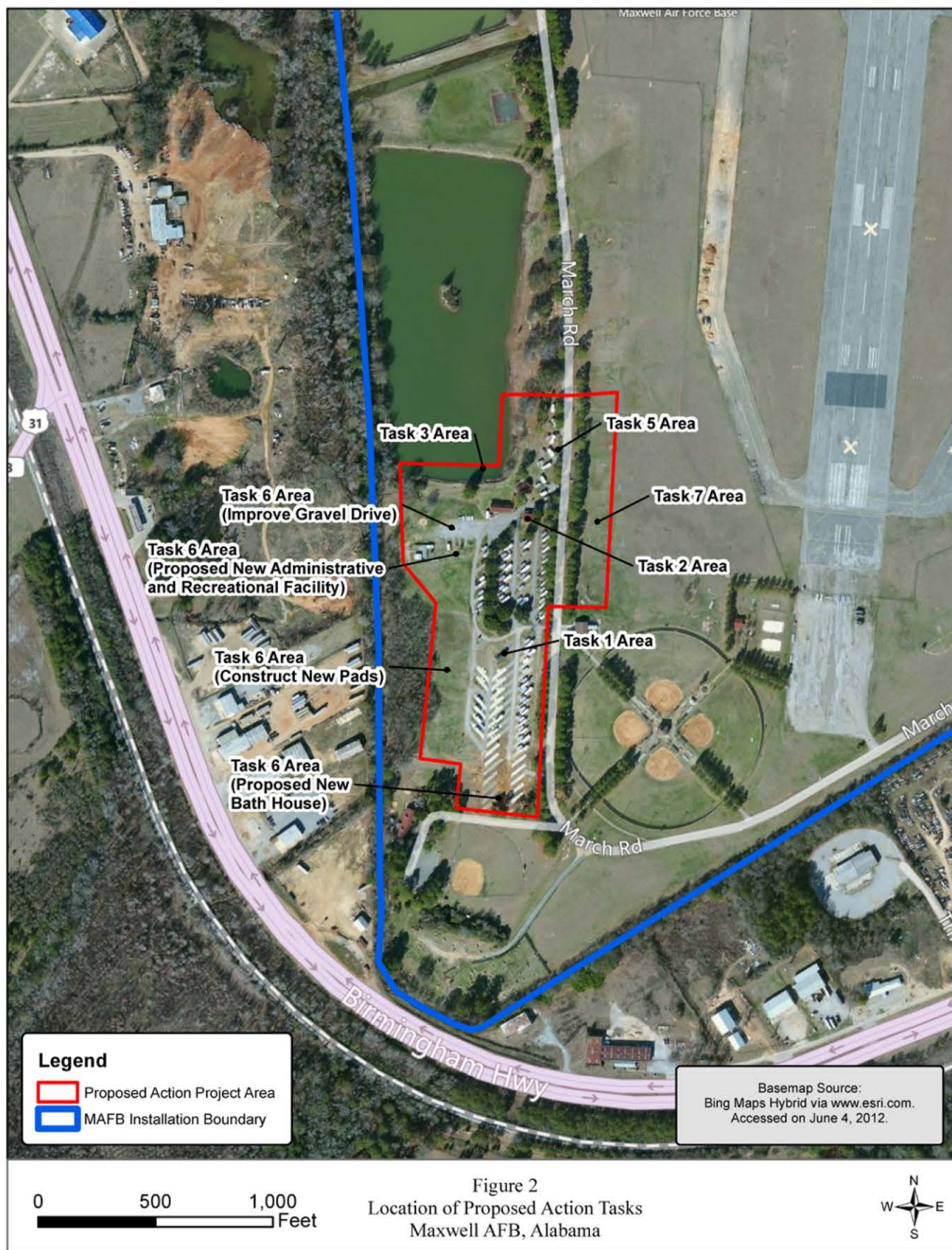
Task 6 includes constructing twelve trailer pads along the southwestern portion of the property. This would include widening an existing access road, constructing a new gravel access road and improving an existing gravel drive. Improvements in this area would also include a new bathhouse and laundry facility; a picnic pavilion; a dumpster pad and two playground areas. All necessary supporting structures, equipment, and utilities would also be included.

The additional bath house and laundry facility would be located outside the 100-year flood zone at the southern end of the existing FamCamp area (Figure 4-3). Unenclosed, unoccupied structures such as trailer pads, pavilions, and playgrounds may be located within the flood zone.

Task 7 includes creating new camping spaces on the east side of March Road, just north of the existing ball fields. The new camping spaces would provide 12 full utility hook-ups and a new gravel access road east of March Road. All necessary supporting structures, equipment, and utilities would also be included.

## **2.2 Alternatives Considered but Eliminated from Further Analysis**

Alternative locations are limited since MAFB is land-locked by surrounding developments in the City of Montgomery. An alternative considered but not carried forward for analysis includes using areas near Riverside Heights (east side of MAFB) for additional camping spaces. This alternative was eliminated because it is distant from the existing FamCamp, making access to administration areas, fishing ponds and indoor recreational facilities problematic. Additionally,



the City of Montgomery is currently negotiating the purchase of land in this area to use for the River Walk project; therefore, this alternative was eliminated from further analysis.



### 3.0 AFFECTED ENVIRONMENT

This section describes the current conditions of the natural and human environments (resource areas) that have the potential to affect or be affected by the Proposed Action. In accordance with NEPA, CEQ regulations and the AFI 32-7061, The Environmental Impact Analysis Process, only those resources that have the potential to affect or be affected by the Proposed Action will be described and analyzed. These resource areas will be described and analyzed in a level of detail commensurate with the level of importance of the resource area and the intensity of potential effect. Resource areas with the potential to be greatly affected by the Proposed Action will be described in greater detail than those resources with minimal potential effect. Furthermore, resource areas not likely to affect or have an effect on the Proposed Action will be omitted from further analysis as permitted by CEQ 32 CFR 1502.15. These resources are described in Table 3-1 along with the rationale for dismissal.

**Table 3.1: Resources Dismissed from Further Analysis**

<b>Resource Area</b>	<b>Rationale for Dismissal</b>
Airfield Operations	The Proposed Action would not interfere with airfield operations. Use of the southeastern air strip and approach lanes has been discontinued and these surface areas are scheduled for demolition.
Biological Resources	There are no known sensitive biological resources within or adjacent to the project area.
Cultural Resources	There are no known cultural resources within the project area. If any suspect materials are discovered during construction, activities would be halted immediately and the MAFB Historic Preservation Officer would be notified immediately by telephone for consultation and appropriate action.
Geology (Subsurface)	Due to the limited surface disturbance associated with the Proposed Action, no subsurface geological resources would be affected. The potential effects on soils are included in the analysis below.
Land Use	This area is currently being utilized for recreational activities. There would be no changes to the current land use of the project area.
Safety	The Proposed Action would not occur within any protected areas (firing ranges, blast radius, or other) and would have no effect on the safety environment.
Threatened and Endangered Species	There are no known threatened or endangered species within or adjacent to the project area.
Wetlands	There are no wetlands located within the project area.

Resource areas that have the potential to affect or be affected by the Proposed Action are described in the following sections and contain a description of the resource and the existing conditions of the resource. Additional background information regarding resources may be found in *Final Environmental Assessment – Proposed Construction of New and Updated Training Facilities at Maxwell Air Force Base*, prepared by Maxwell Air Force Base in October 2008. This EA can be accessed for review by contacting MAFB Environmental Office, 42 CES/CEV and is hereby incorporated by reference.

### **3.1 Air Quality**

#### **3.1.1 Resource Definition**

Air quality in a particular area can be described in terms of the type and quantity of pollutants present in the air during a particular time period. The size of pollutant particles and the prevailing weather conditions in the area also have an effect on air quality. The CAA was promulgated in 1990 and is implemented by the US EPA. The US EPA has established National Ambient Air Quality Standards (NAAQS) for the following pollutants known as “criteria pollutants”: carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The NAAQS for these pollutants identify the maximum allowable concentrations that are considered safe and protective of human health and welfare. The US EPA further identifies regions that are in “attainment” or “non-attainment” with the NAAQS standards. The CAA requires states to create a State Implementation Plan (SIP) and federal activities are required to demonstrate conformity with the SIP. The State of Alabama has adopted the NAAQS; therefore activities at MAFB must demonstrate conformity with NAAQS. Certain activities are considered to have a minimal effect on air quality and are exempt from conformity determinations. AFI 32-7040, Air Quality Compliance, states that installations should assess, attain, and sustain compliance with the CAA and other federal state and local environmental regulations.

The Region of Influence (ROI) for air quality is limited to the FamCamp and the areas immediately surrounding the FamCamp.

### 3.1.2 Existing Conditions

MAFB is located within Air Quality Control Region (AQCR) 58. Montgomery County is classified as “attainment” for all NAAQS criteria pollutants.

The MAFB is located in a humid subtropical climate. The average annual rainfall is 54 inches, with the driest months from September through November (SERCC, 2012). Prevailing winds are from the north in the winter, from the south in the spring, from the northwest in summer and from the northeast in fall with the average annual wind speed near five miles per hour.

## 3.2 Hazardous Materials and Wastes

### 3.2.1 Resource Definition

Hazardous materials are defined and categorized by numerous environmental statutes as substances with physical properties that pose a substantial threat to human health or the environment. Hazardous materials must be used and managed in a particular manner to safeguard public health and the environment and are regulated by laws that include the Occupational Safety and Health Act (OSHA) of 1970 (29 USC 651 et seq.), Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (42 USC 11001 et seq.), and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC 9601-9675). Hazardous waste is a hazardous material that is no longer used or needed. Hazardous waste is regulated by the Solid Waste Disposal Act and the Resource Conservation and Recovery Act (RCRA) and its amendments (42 USC 6901-6992).

The U.S. Air Force, through Air Force Policy Directive (AFPD) 32-70, Environmental Quality, established the policy that the Air Force is committed to environmentally-sound practices, including: cleaning up environmental damage from past activities; meeting all environmental standards applicable to present operations; planning future activities to minimize environmental impacts; managing responsibly any natural and cultural resources it holds in public trust; and eliminating pollution from its activities wherever possible. AFPD 32-70 and the AFI series 32-7000 incorporate the requirements of all Federal regulations, Department of Defense (DoD) Directives, and other AFIs for the management of hazardous materials and hazardous wastes.

The ROI for hazardous materials and waste is limited to the FamCamp and those areas in close enough proximity to have potential for affecting the FamCamp.

### 3.2.2 Existing Conditions

The Environmental Flight at MAFB is responsible for the management of hazardous materials and wastes for the entire installation. The only hazardous materials utilized or stored at the FamCamp are those used for general cleaning such as bleach, ammonia or other common household cleansers.

The FamCamp is located on the site of a previous Skeet Range which was constructed in 1945 and demolished in 1976. The Military Munitions Response Program (MMRP) has conducted soil testing for potential contamination of lead from spent ammunition and polynuclear aromatic hydrocarbons (PAH) from clay targets (see Figure 3-1). A Comprehensive Site Evaluation (CSE) Phase I was conducted in 2007, followed by a CSE Phase II in 2011 and a MMRP Remedial Investigation in 2012. Results from the CSE Phase II were received in August 2012. An Interim Removal Action is currently underway. (MAFB 2011a)

Soil sampling showed that PAHs in surface and subsurface soils within and near the FamCamp pose a risk above the ADEM target cancer risk criteria for residential, commercial, and recreational areas (see Figure 3-2). The MMRP (Military Munitions Response Program) has initiated a Feasibility Study to address possible remediation. (MAFB 2012a) The MMRP reports can be accessed through the ERP Office, 42 CES/CEAN.

During the CSE Phase I, a munitions response area (MRA) was identified at and surrounding the FamCamp. This area was identified as TS301. MRA boundaries were established and interim conceptual site models (ICSMs) were developed. Based on potential munitions-related activities, surface soil, subsurface soil, surface water, sediment, and groundwater were identified as potential exposure media in the CSE Phase I ICSMs. No munitions and explosives of concern (MEC) or munitions debris (MD) were identified during the CSE Phase I. During the CSE Phase II fieldwork, surface soil, subsurface soil, surface water, and sediment were sampled to evaluate the potential impacts of lead and PAHs at the MRA. The MRA was divided into five separate munitions response sites (MRSs) to designate areas contaminated with lead and PAHs from areas



that require no further action (NFA). Two of the MRSs are located within the FamCamp area: TS301 and TS301a.

The TS301 MRS covers 2.7 acres of the Old Skeet Range (TS301), and includes the open space adjacent to (west of) the RV pads within the FamCamp. Clay target debris was identified at TS301 (MAFB 2012). The skeet range firing points were located to the southeast of this MRS with firing directions toward the northwest. Munitions associated with the Old Skeet Range include shotgun munitions; there were no other munitions identified at this site. The TS301a MRS covers 4.4 acres of the Old Skeet Range (TS301), and includes the RV pads and support buildings. The skeet range firing points were located south of this MRS. (MAFB 2012a)

The status of other environmental restoration and associated compliance programs at Maxwell is documented in the *Environmental Restoration Program Management Action Plan*, or ERP MAP (MAFB 2005) which is available for public review at MAFB Environmental Restoration Program office, 42 CES/CEAN. The ERP sites within or near the FamCamp are described in Table 3.2 and are depicted in Figure 3-3.

**Table 3.2: Description of ERP Sites Within or Near the FamCamp**

<b>ERP Site No.</b>	<b>Description and Status</b>
<b>SD001</b>	<p>Surface Drainage System. This site includes all of MAFB surface drainage along with the West End Ditch along the southern and western boundary of the base. From the 1940s to the 1970s, this area received untreated industrial waste solutions, including: washrack effluent, electroplating operations rinse-waters, acids, and paint strippers. The risks identified for SD001 are associated with non-point source discharge contributions from adjacent non-DoD sources and from ongoing base grounds-keeping and storm water management activities. The site is not associated with historical CERCLA spills or releases.</p> <p>It is anticipated that with additional rounds of sediment and surface water sampling for nonpoint source discharges, the site will be removed from the ERP list.</p>
<b>SS004</b>	<p>Solvent Contaminated Groundwater. This site is a large area comprised of the existing fenceline/base boundary area that includes the West End Ditch, extending from the southwest corner of the base northward along the West End Ditch, to the south end of Landfill 6. This site contains low levels of tetrachloroethylene in the groundwater from external sources.</p>

<b>DP001</b>	Site of previous electroplating disposal area. Electromagnetic and geophysical surveys were conducted in 1986 and 1990. No buried drums or debris were found. No Further Remedial Action Plan (NFRAP) document was issued in 2001.
--------------	--

Source: MAFB 2008.

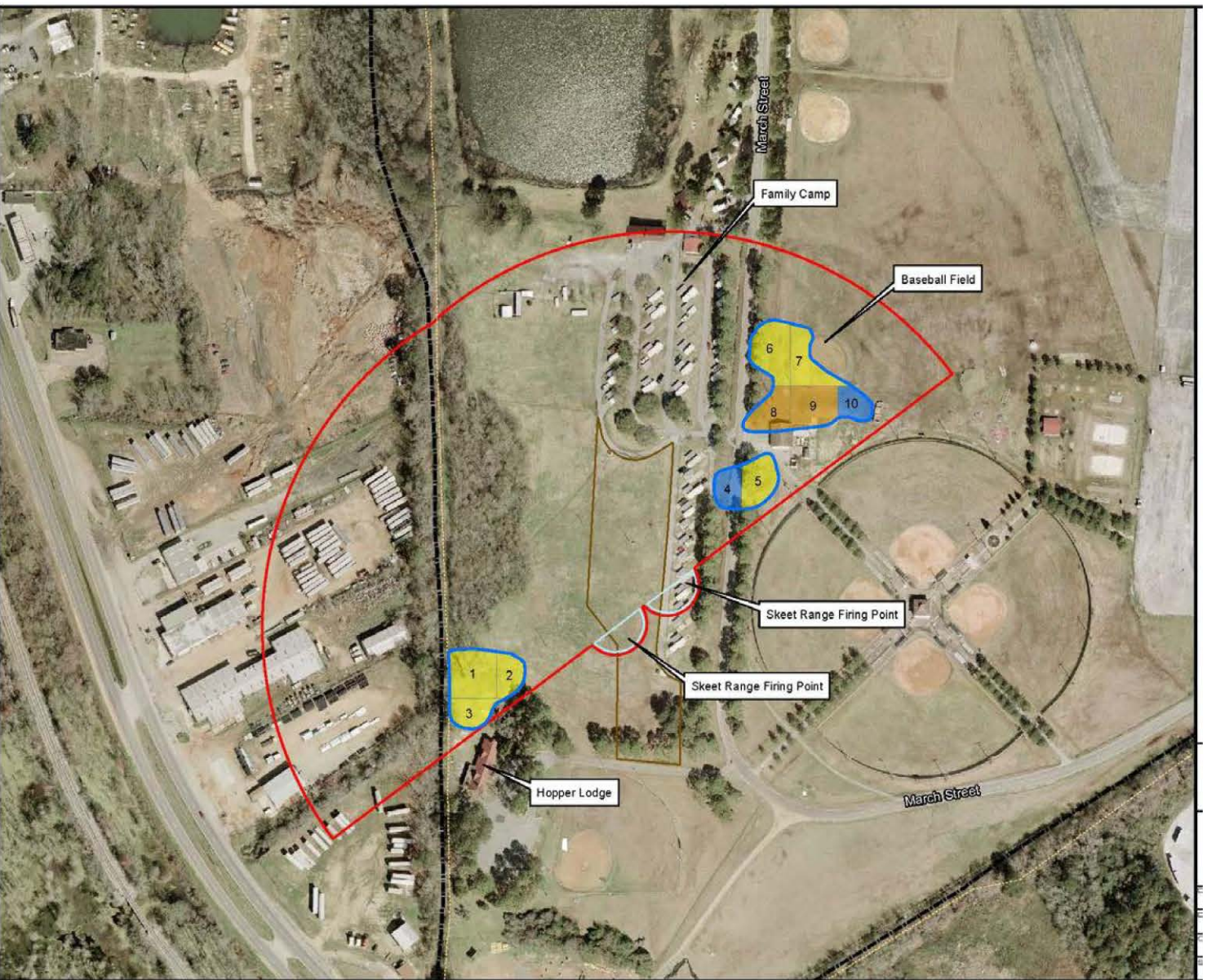
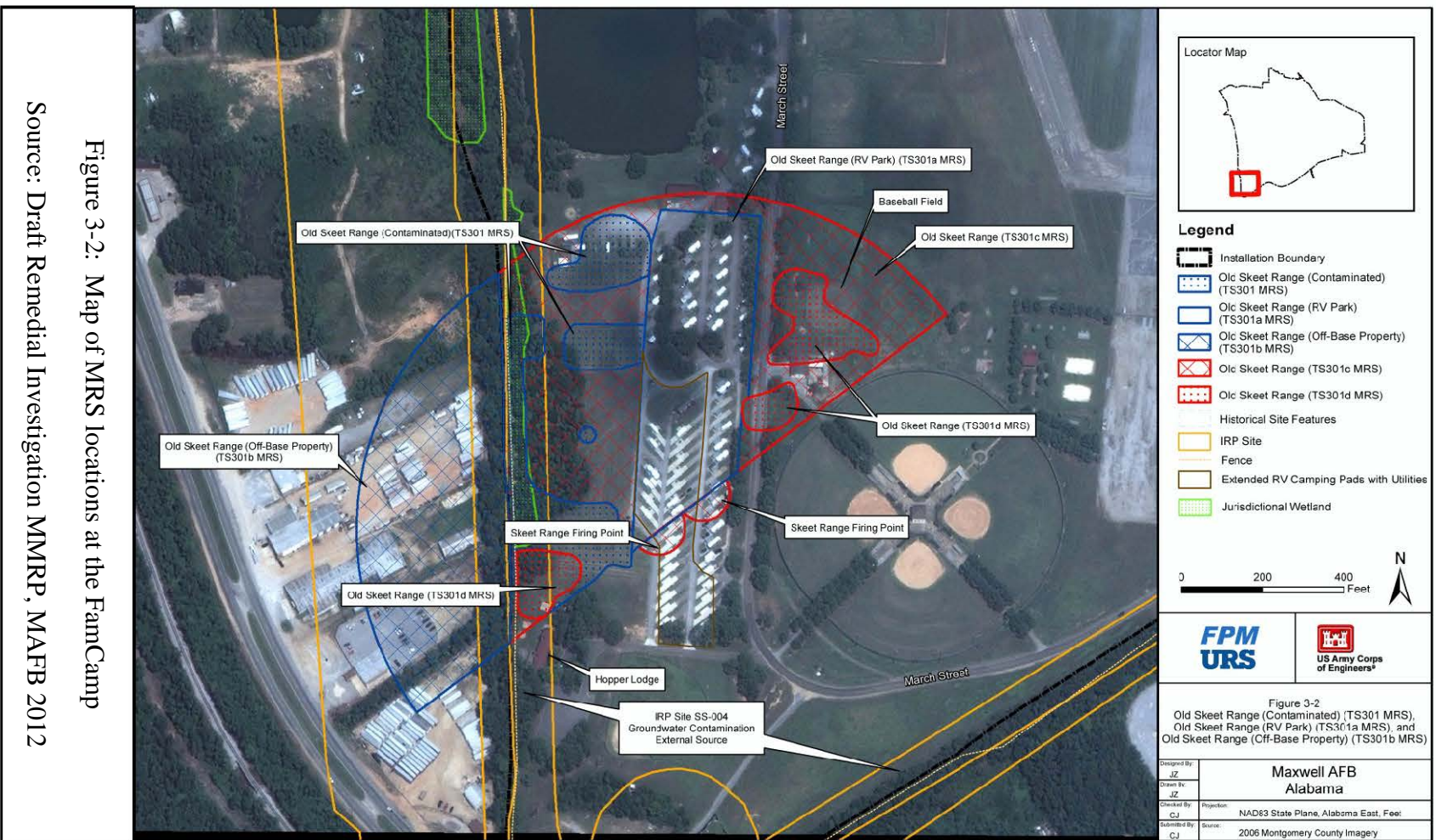


Figure 3-1: Soil Sample Locations at the FamCamp

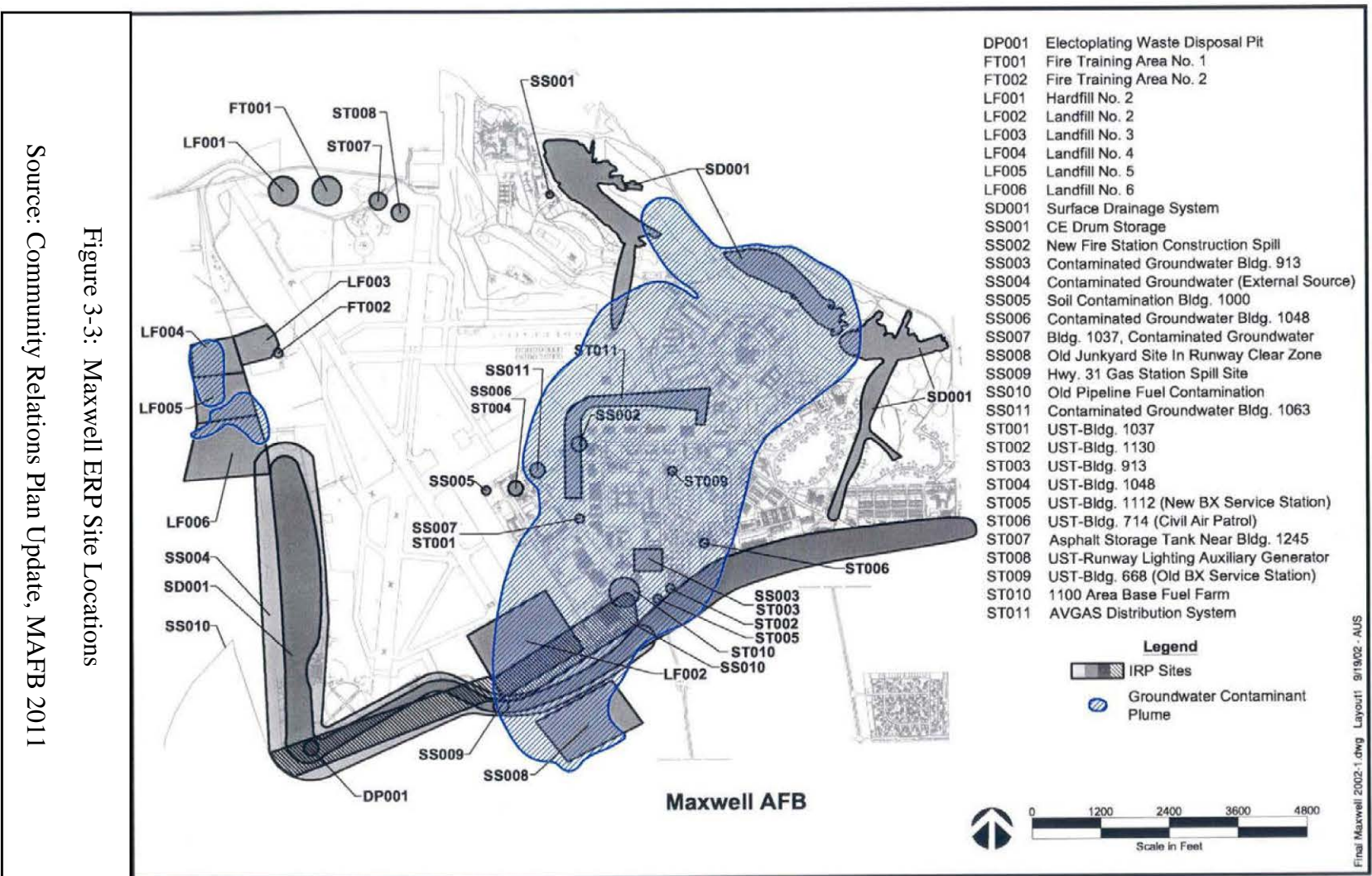
Source: Interim Removal Action MMRP, MAFB 2011a





3-5

Figure 3-2: Map of MRS locations at the FamCamp  
Source: Draft Remedial Investigation MMRP, MAFB 2012



### **3.3 Noise**

#### **3.3.1 Resource Definition**

Noise can be defined as any sound that is undesirable. Excessive noise has the potential to interfere with communication and when intense enough has the potential to damage hearing or cause annoyance. Sound is measured in decibels (dB) and is commonly measured as dBA which reflects the ear's response to different frequencies of sound. Day-Night Level (DNL) is a measurement of the average sound exposure level during a 24-hour period. Construction noise is considered to be minimal due to the short-term effects that are isolated to the site and immediate vicinity.

The ROI for noise is limited to the FamCamp and the immediate vicinity.

#### **3.3.2 Existing Conditions**

Noise at MAFB is primarily generated by aircraft operations, on- and off-base vehicle operations, and intermittent construction projects. The Air Installation Compatible Use Zone (AICUZ) noise contours show that areas of aircraft noise of greater than 65 dB are centered on the runway and are mainly confined to MAFB, extending only slightly into the northern and southern clear zones beyond the ends of the runway. The FamCamp is located outside of the 65 dB contour. There are no current construction activities occurring at the FamCamp or immediate vicinity.

### **3.4 Socioeconomics, Environmental Justice and Protection of Children**

#### **3.4.1 Resource Definition**

The EO 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires that federal agencies must consider the effects of its actions on human health and the economic effect on surrounding populations. This EO also requires that federal actions should not have a disproportionately high and adverse effect on the human health or the natural environment in communities with predominantly minority and low income populations.



According the AF Guide for Environmental Justice Analysis with the EIAP, analysis is not required if no disproportionately high impacts are expected to low income or minority populations by the Proposed Action (USAF, 1997).

The EO 13045 Protection of Children from Environmental Health Risks and Safety Risks, as amended by EO 13229 and EO 13296, requires that federal actions or actions taken by federal agencies consider the health and safety risks that may disproportionately affect children.

The ROI for socioeconomics, environmental justice and protection of children will include Montgomery County with a focus on MAFB.

### **3.4.2 Existing Conditions**

According to the US Census Bureau, in 2010 18.9 percent of the population of Montgomery County lived below the poverty level, which is slightly higher than the state average of 17.1 percent; median household income was approximately \$43,725, which is higher than the state median income of \$42,081. Approximately 39.5 percent of the population self-identified their race as “white,” which is below the state value of 68.5 percent ([quickfacts.census.gov](http://quickfacts.census.gov)).

Temporary housing for families is permitted at the FamCamp; however the majority of the population at the FamCamp is comprised of unaccompanied airmen. There are no facilities (child care centers, family housing centers or schools) with high populations of children within the immediate project area.

## **3.5 Soils**

### **3.5.1 Resource Definition**

For the purposes of this analysis, soils are defined as unconsolidated mineral or organic materials within the shallow land surface that supports vegetation and man-made structures. Excessive erosion of soil materials can lead to stressed vegetation and undermining of structural foundations. Eroded soil material can also be carried by stormwater to wetlands, streams and lakes, causing significantly degraded habitats and water quality. Chemical contaminants attached to soil particles can also be transported with eroded soils, causing further degradation.



The ROI for soil resources is limited to the FamCamp and areas immediately surrounding the FamCamp.

### **3.5.2 Existing Conditions**

The soils within the project area are structurally stable and supporting ample ground cover vegetation and mature trees. The project area is located in a relatively flat area within and adjacent to a floodplain. The Cahaba-Wickham-Roanoke association is typically found on level to gently sloping lowlands of floodplains and low stream terraces and is present along the north and west base boundaries. Soils range from poor to well-drained and sub-soils have a seasonally high water table.

Contaminated soils are present at the FamCamp and are presently being managed by the Environmental Restoration Program (ERP). See Section 3.2 for more details.

## **3.6 Transportation**

### **3.6.1 Resource Definition**

Transportation refers to the movement of vehicles on roadway networks. Primary roads, such as major interstates, are designed to move traffic and do not necessarily provide access to all adjacent areas. Secondary roads, commonly referred to as surface streets, are used to gain access to residential and commercial areas, hospitals, and schools.

The ROI for transportation will include MAFB and focus primarily on the FamCamp.

### **3.6.2 Existing Conditions**

FamCamp is located on March Road, which is currently a secondary road, with a low traffic volume, on the north and western sides of the base. There are several smaller campground driveways within the FamCamp.

### **3.7 Utilities**

#### **3.7.1 Resource Definition**

For the purposes of this assessment, utilities include services provided to MAFB such as electricity, natural gas, potable water, wastewater and solid waste management. An adequate and uninterrupted supply of these utilities is essential to the operation of the FamCamp.

The ROI for utilities will include MAFB and focus primarily on the FamCamp.

#### **3.7.2 Existing Conditions**

Utility services within the FamCamp include electricity, natural gas, potable water, wastewater and solid waste management. Utility services are adequate for the current demands at the FamCamp and there is sufficient additional capacity available for future expansion.

MAFB currently receives electricity from Alabama Power Company and there are no daily limits imposed on MAFB for electrical consumption. Natural gas is provided by Alabama Gas Corporation and there are no daily limits imposed on MAFB for natural gas consumption. MAFB obtains its potable water from the City of Montgomery and there are no daily limits on potable water consumption. The Towassa Wastewater Treatment Plant provides tertiary treatment to MAFB. The treatment plant is operated and maintained by the City of Montgomery. Solid waste generated at MAFB is either recycled or disposed of in the North Montgomery City Landfill located west of MAFB.

### **3.8 Water Resources**

#### **3.8.1 Resource Definition**

The Clean Water Act (CWA) of 1972 (33 USC 1251 *et seq.*) is the primary Federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters.

Prior to any construction activity in a floodplain, the proponent must first prepare a FONPA, in accordance with 32 CFR 989.15, which documents there are no practicable alternatives to the action, and that the Proposed Action includes all practicable measures to minimize impacts to

floodplains. In preparing the FONPA, the AF must consider the full range of practicable alternatives that would meet the proposed mission requirements. The Proposed Action must include all practicable measures to minimize impacts to floodplains.

Floodplains are those normally dry, low-lying and relatively flat areas near water bodies or wetlands that are subject to at least a one percent or greater chance of flooding in any given year. Alterations to floodplains are subject to EO 11988, Floodplain Management. The purpose of this EO is to avoid, to the extent possible, long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.

AFI 32-7061 instructs AF installations to uphold strict standards to strongly discourage development in and around flood plains. Where no practicable alternative exists, the project should be designed to ensure the special qualities of floodplains are be preserved to the maximum extent practicable; ensure there is no severe threat or unnecessary increased risk to human life, health and property; and ensure that the action does not lead to an increase in flood losses or losses of natural and beneficial flood plain values.

Under the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program regulates point sources such as pipes or man-made ditches that discharge pollutants into waters of the United States. Permitting authority for the NPDES permit program has been granted to the State of Alabama through the Alabama Department of Environmental Management (ADEM).

The USACE has permitting authority for regulated activities within or directly affecting navigable waters (Section 10 of the Rivers and Harbors Act of 1899) and within jurisdictional wetlands (Section 404 of the CWA).

The Section 438 of the EISA requires federal agencies to develop and redevelop applicable facilities in a manner that maintains or restores stormwater runoff to the maximum extent technically feasible. The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum

extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

The ROI for water resources considered in this assessment includes all surface and groundwater resources, floodplains, wetlands and surface waters such as streams, ponds and rivers and drainage features such as ditches and swales, within and adjacent to the FamCamp.

### 3.8.2 Existing Conditions

There are two surface water features (ponds) associated with the FamCamp. These ponds are designed to discharge during high-rainfall events to the West End Ditch, a large drainage ditch that is owned and maintained by the City of Montgomery.

MAFB is registered with the ADEM's Phase II Storm Water Program. Shallow drainage swales are located within the FamCamp and provide stormwater conveyance to the nearby large drainage ditch. A forested wetland area is present along the drainage ditch, which runs north-south along the western boundary of the FamCamp. Additionally, portions of the FamCamp are located within the 100-year floodplain.

## 4.0 ENVIRONMENTAL CONSEQUENCES

Within the scope of NEPA review, project-related impacts are classified based on changes to the existing environment. Whether an action significantly affects the quality of a resource is determined by considering the context in which it occurs, along with the level of intensity of the action. The context of an action is determined by studying the potential region of influence of the project. Significance varies depending on the physical setting of an alternative action. The intensity of an action refers to the severity of the impacts, both regionally and locally. Additionally, the length of time of the potential impact is considered. (NEPA, 40 CFR 1508.27) Three levels of impact can be identified:

- No Impact – No impact is predicted;
- No Significant Impact – An impact is predicted, but the impact does not meet the intensity/context significance criteria for the specified resource; or
- Significant Impact – An impact is predicted that meets the intensity/context significance criteria for the specified resource.

**Table 4.1: Comparison of Environmental Consequences**

Resource Area	Proposed Action	No-Action Alternative
Air Quality	<b>Not Significant.</b> The Proposed Action would generate increased dust and air emissions due to construction related activities. These temporary emissions would not cause a significant effect.	<b>No Effect.</b> There would be no change to the existing conditions.
Hazardous Materials and Waste	<b>Not Significant.</b> There are Environmental Restoration Program (ERP) sites near the Project Area. The construction contractor would perform work under a site-specific plan that would be approved by 42 CES/CEAN, 42 CES/CEV <u>and</u> <u>ADEM</u> , prior to start of construction. Any additional construction to be carried out before the MMRP remediation is complete would also need a work plan and ADEM approval.  No significant effect would be expected.	<b>No Effect.</b> Remediation activities within ERP sites would continue under the No-Action Alternative.
Noise	<b>Not Significant.</b> Short-term construction related noise would not interfere with normal activities within the ROI. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.

Resource Area	Proposed Action	No-Action Alternative
Socioeconomics and Environmental Justice	<b>Beneficial Effect.</b> Construction of the Proposed Action and a slight increase in fees collected would have a slight beneficial impact on the socioeconomic environment at MAFB. The increased availability of low-cost temporary housing opportunities would provide a beneficial effect for AU students.	<b>Not Significant.</b> The No-Action Alternative would prevent the addition of low-cost temporary housing for AU students.
Soils	<b>Not Significant.</b> The Proposed Action would create temporary soil disturbance during construction. Appropriate best management practices would be implemented during construction. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Transportation	<b>Not Significant.</b> The FamCamp is located in an area with a low traffic volume. During construction, localized traffic would increase. During the operation of the Proposed Action, some increase would be expected. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Utilities	<b>Not Significant.</b> The Proposed Action would result in an increased demand for all utility services. However, there is currently sufficient capacity to provide for the increased demand. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.
Water Resources	<b>Not Significant.</b> Surface waters would be protected from potential run-off associated with construction activities by the use of perimeter controls and other measures. Some of the proposed actions would include activities (non-occupied structures) within the 100-year floodplain and a pond. CWA permits would be obtained through the U.S. Army Corps of Engineers prior to any site-disturbing activity that would impact Waters of the U.S. No significant effect would be expected.	<b>No Effect.</b> There would be no change to the existing conditions.

## 4.1 Air Quality

### 4.1.1 Analysis Approach

Criteria pollutant emissions resulting from proposed construction activities at MAFB have been evaluated for the Proposed Action and No-Action Alternative. Air quality impacts would be significant if emissions associated with the Proposed Action or No-Action Alternative would: 1) increase ambient air pollution concentrations above the NAAQS; 2) contribute to an existing violation of the NAAQS; 3) interfere with or delay timely attainment of the NAAQS; or 4) impair visibility within federally mandated Prevention of Significant Deterioration (PSD) Class I areas. Additionally, a conformity analysis would be required before initiating any action that might lead to nonconformance of a State Implementation Plan (SIP) or an excess of *de minimis* criteria pollutant thresholds or that might contribute to a violation of the NAAQS.

### 4.1.2 Proposed Action

Construction of the new trailer pads, improvement of gravel drives, demolition of existing buildings, and creation of new paved roadways would generate increased dust and air emissions due to construction-related activities. Fugitive dust would be controlled to the maximum extent practicable through wetting of exposed soils, temporary cover of stockpiled soils (plastic sheeting or temporary vegetation) and limiting the period of time that soil remains exposed to wind.

Construction activities would result in minor, temporary increases in criteria pollutant emissions and therefore would not breach any of the identified thresholds. Since Montgomery County is in an area classified as “attainment,” these temporary emissions would not cause a significant effect on air quality at MAFB.

### 4.1.3 No-Action Alternative

Under this alternative, there would be no change to the current air quality at MAFB.



## **4.2 Hazardous Materials and Waste**

### **4.2.1 Analysis Approach**

The analyses focused on how and to what degree the Proposed Action affects hazardous materials usage and management and hazardous waste generation and management. Potential impacts related to hazardous materials and hazardous wastes were analyzed based on the following four criteria. Potential impacts could be considered significant if:

- 1) use of hazardous materials would pose unusual risks to personnel safety or would adversely impact the current hazardous materials management system;
- 2) types or quantities of hazardous waste would be generated that could not be accommodated by the current management system;
- 3) the Proposed Action would result in an increased likelihood of an uncontrolled release of hazardous materials that could contaminate soil, surface water, groundwater, or air; or
- 4) implementing the Proposed Action would result in adverse impacts to an existing ERP site.

### **4.2.2 Proposed Action**

During construction, relatively small amounts of hazardous materials would be utilized and hazardous wastes would be generated in relation to the use of solvents, paint, and other construction-related materials and wastes. All construction related hazardous materials would be stored, utilized and disposed in a manner consistent with MAFB guidance documents previously identified in Section 3.2.2.

Due to the potential for encountering elevated levels of lead or PAH in disturbed soils, as described in Section 3.2.2, the construction contractor would perform work under a site-specific plan that would be approved by 42 CES/CEAN, 42 CES/CEV and ADEM, prior to start of construction. Any additional construction to be carried out before the MMRP remediation is complete would also need a work plan and ADEM approval. Contaminated soils which were previously unidentified and may be disturbed during construction would be contained and

disposed in accordance with Base Hazardous Waste Protocols. Therefore, the Proposed Action would likely cause no significant effect to the current hazardous materials and waste environment at MAFB.

#### **4.2.3 No-Action Alternative**

Under this alternative, there would be no increase to construction related hazardous materials and wastes at MAFB. Contaminated soils related to ERP clean-up would be disturbed (contained and removed) during scheduled ERP cleanup activities. Overall, there would be no change to the existing conditions for hazardous materials and wastes at MAFB.

### **4.3 Noise**

#### **4.3.1 Analysis Approach**

The FamCamp and surrounding area is the general ROI under consideration for this assessment. For the purposes of this assessment, noise that would cause a long-term interference with the existing activities or a long-term annoyance of existing occupants within the ROI would be considered significant.

#### **4.3.2 Proposed Action**

The operation of the expanded facilities would potentially generate a slightly increased noise level in the immediate area due to an increase in the use of laundry facilities and other activities. The potential increase in noise levels would not change the noise classification of the area and would not create interference with current adjacent activities. Therefore the operation of the expanded facilities would likely cause no significant effect.

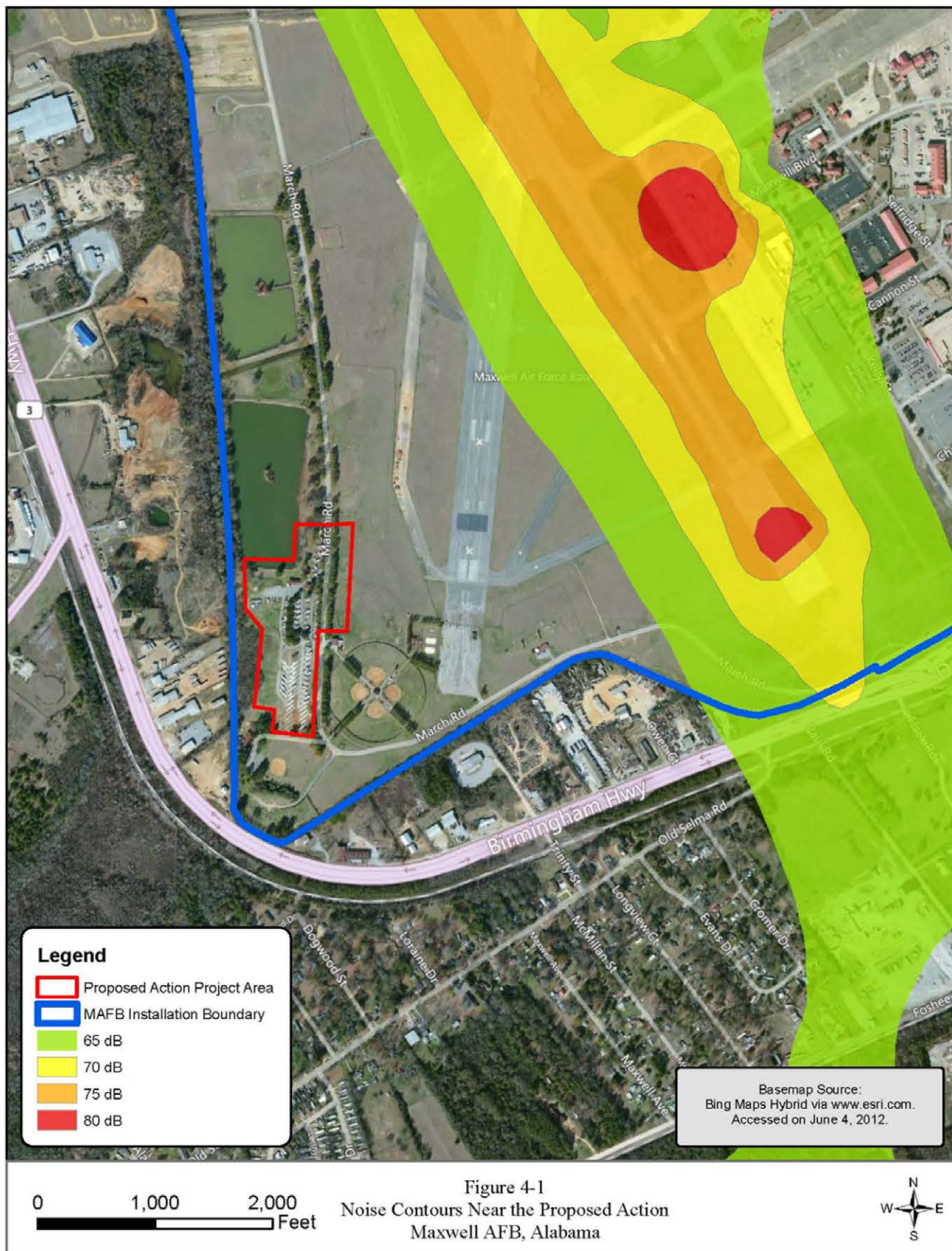
Under the Proposed Alternative, construction related noise (heavy equipment operations, hammering, table-saws, etc.) would increase in the immediate area. Construction activities on MAFB are normally conducted between 7:00 a.m. to 5:00 p.m. when many campground occupants would be at work or school.

The FamCamp is located distant from administrative offices, classrooms, housing or other sensitive noise receptors (see Figure 4-1). All tasks identified in the Proposed Action would take

place over a period of five to ten years. Short-term construction related noise would not interfere with normal activities within the ROI; therefore the Proposed Action would likely cause no significant effect on the noise environment.

#### 4.3.3 No-Action Alternative

Under this alternative, there would be no change to the current noise environment at MAFB.



## **4.4 Socioeconomics, Environmental Justice and Protection of Children**

### **4.4.1 Analysis Approach**

The significance of population and expenditure impacts is assessed in terms of direct effects on the local economy and related effects on other socioeconomic resources within the region. Socioeconomic impacts would be considered significant if the Proposed Action resulted in a substantial shift in population trends or notably affected regional employment, spending and earning patterns, or community resources. Significant impacts would also result from a disproportionate adverse impact on minority, low-income populations or children.

### **4.4.2 Proposed Action**

No impacts would occur outside of MAFB; therefore, no disproportionate impacts to minority or low-income populations are expected. However, construction of the Proposed Action and a slight increase in fees collected would have a slight beneficial impact on the socioeconomic environment at MAFB. The increased availability of low-cost temporary housing opportunities would provide a beneficial impact for AU students. No adverse impacts are expected for children and increased recreational opportunities for families would likely have a beneficial effect.

### **4.4.3 No-Action Alternative**

Under this alternative, there would be no change to the current socioeconomics and environmental justice at MAFB.

## **4.5 Soils**

### **4.5.1 Analysis Approach**

Soils within the FamCamp were evaluated to identify soil types, prominent soil properties and erosion potential. Activities that would affect soil composition, causing stressed or failed vegetation or undermining of structures would be considered a significant adverse effect on soils.



#### 4.5.2 Proposed Action

During the construction of the Proposed Action over the next five to ten years, the upper six to twelve inches of soils would be disturbed during grading and clearing activities. Disturbed soils would be contained with appropriate construction best management practices (BMPs) for erosion and sediment control such as silt fences, straw wattles, and temporary cover materials. Clean topsoil (free of debris and potential contaminants) that is not immediately used during construction activities would be reserved for future use. The construction contractor would perform work under a site-specific plan that would be approved by 42 CES/CEAN, 42 CES/CEV and ADEM, prior to start of construction. Any additional construction to be carried out before the MMRP remediation is complete would also need a work plan and ADEM approval. For additional discussion, see Section 4.2. All ground surfaces disturbed by the Proposed Action would be permanently stabilized with impervious surfaces such as pavement or building structures or pervious surfaces such as gravel or landscape plant materials such as sod. Therefore, the Proposed Action would likely cause no significant effect on soil resources at MAFB.

#### 4.5.3 No-Action Alternative

Under this alternative, soils would only be disturbed during the regularly scheduled ERP cleanup activities. No construction related activities would occur at the FamCamp and there would be no significant effect on soil resources at MAFB.

### 4.6 Transportation

#### 4.6.1 Analysis Approach

Activities that would cause prolonged disruption to the current traffic flow (capacity and efficiency) or that would cause unsafe conditions within MAFB would be considered a significant effect.

#### 4.6.2 Proposed Action

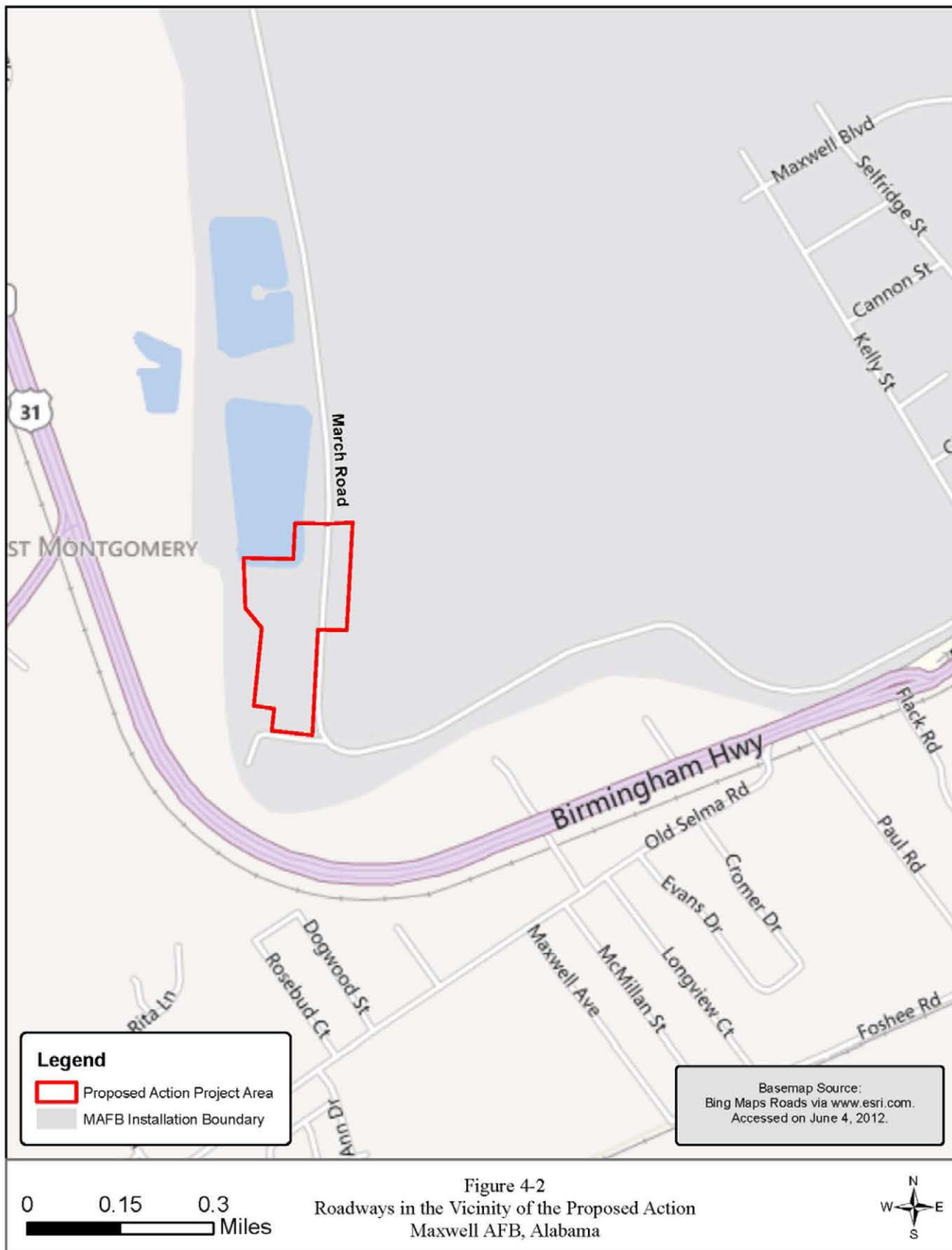
During construction, localized traffic would increase. During the operation of the Proposed Action, some increase is expected; however, this increase would not exceed the current capacity,



cause inefficiencies or create unsafe conditions. The Proposed Action would not interfere with the current transportation and circulation within or around MAFB (see Figure 4-2). Therefore, the Proposed Action would likely cause no significant effect on transportation.

#### 4.6.3 No-Action Alternative

Under this alternative, there would be no change to the current transportation environment at MAFB.



## **4.7 Utilities**

### **4.7.1 Analysis Approach**

The assessment of impacts to utilities includes considering whether the current demand for utility service would be increased beyond the providers ability to supply the demand. Assessment also includes consideration of the current infrastructure conditions and whether extensive capital improvements would be needed to support the proposed action. Finally, the assessment includes a consideration for prolonged interruption of service.

### **4.7.2 Proposed Action**

The Proposed Action would result in an increased demand for all utility services. However, there is currently sufficient capacity to provide for the increased demand; minimal improvements to infrastructure would be needed at the FamCamp; and no prolonged interruption of service is expected. Therefore, the Proposed Action would likely cause no significant effect on utilities.

### **4.7.3 No-Action Alternative**

Under this alternative, there would be no change to the utility services at MAFB.

## **4.8 Water Resources**

### **4.8.1 Analysis Approach**

Significant impacts to water resources could potentially occur if the Proposed Action: 1) resulted in changes to water quality or supply, 2) threatened or damaged unique hydrologic characteristics, 3) endangered public health by creating or worsening health hazards, or 4) violated established laws or regulations. Impacts of flood hazards on the Proposed Action would be considered significant if permanent structures were enclosed and occupied.

### **4.8.2 Proposed Action**

Floodplain - Some of the proposed actions would include activities within the 100-year floodplain and a pond; however, no permanent structures that would be enclosed or occupied would be constructed within the floodplain (see Figure 4-3). Since space within the FamCamp

and surrounding area is significantly limited, there is no practicable alternative to placing some of the tasks identified in the Proposed Action within the floodplain. Effects have been minimized by placing only structures that would not be enclosed or occupied within the floodplain. Proposed trailer pads, pavilions, and playgrounds would not significantly impede the flow of flood waters; therefore, the proposed action would not cause flood waters to be displaced into other areas. The bathhouses, laundry facilities and administrative offices would be placed outside of the floodplain. Therefore, the Proposed Action would likely cause no significant effect on the floodplain capacity or on public health and safety, and the FONPA would be certified by AETC leadership before the decision document would be signed.

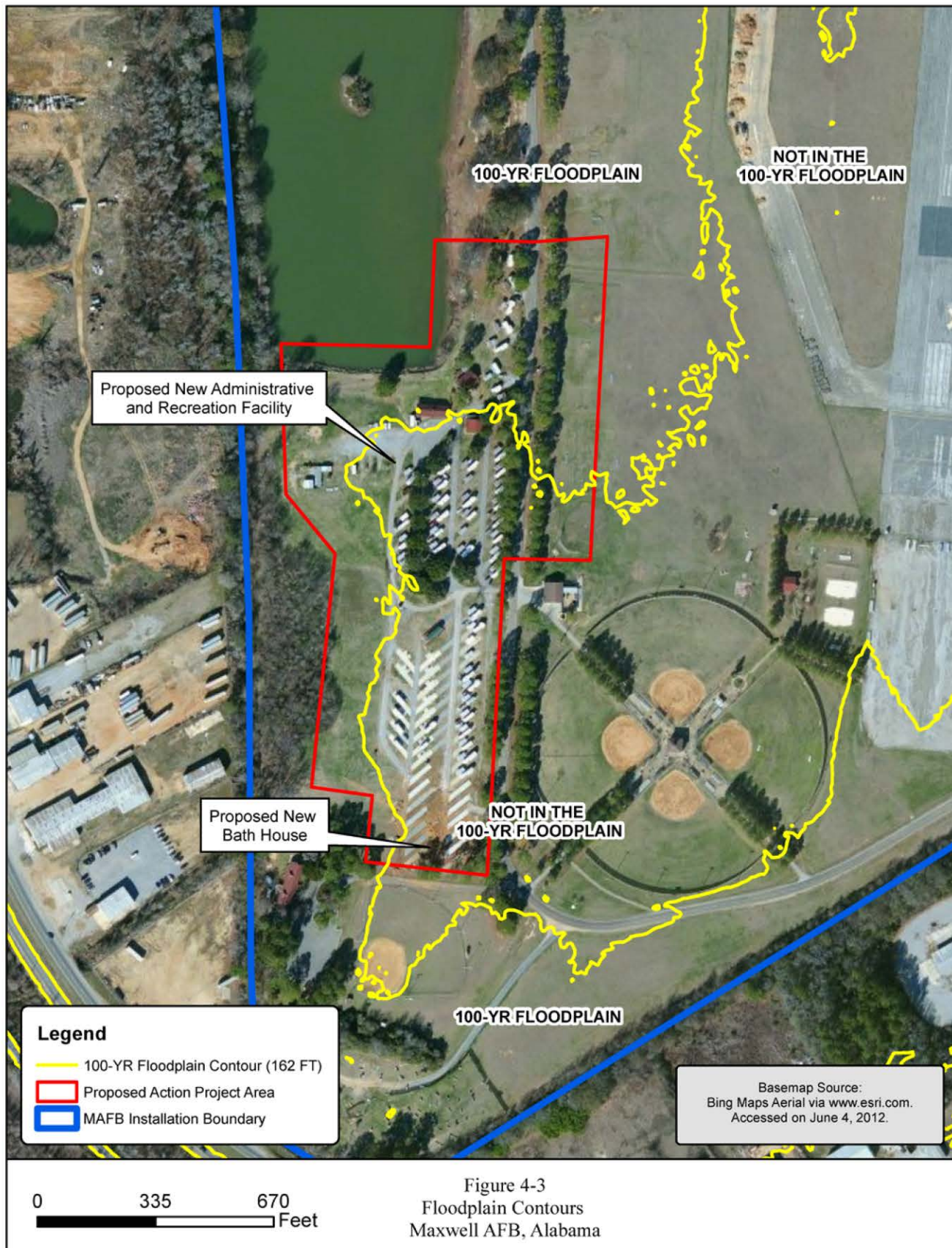
Stormwater - Surface waters would be protected from potential run-off associated with construction activities by the use of perimeter controls and other measures in accordance with ADEM's General NPDES Permit Program for Construction Stormwater. A Construction Best Management Practices plan would be developed during the design phase and implemented during construction. An increase in impervious surfaces greater than 5,000 sf would be created and stormwater controls would be designed and implemented in accordance with Section 438 of EISA. Since the Proposed Action would be in accordance with current regulations regarding water resources, it would likely cause no significant effect on water resources.

The details of the construction of the boardwalk, fishing pier and aeration fountains associated with the manmade pond have not been determined. Most pile supported structures within wetlands are not considered fill and most pier structures within manmade ponds are not regulated. Furthermore, it is unlikely that the final design would include any work within navigable waters (regulated under Section 10 Rivers and Harbors Act) or fill activities within jurisdictional wetlands (regulated under Section 404 of the CWA). Prior to construction of this task, the 42 CES/CEV would review plans to determine federal and state permitting requirements. The MAFB Environmental Office, 42 CES/CEV, would provide trained environmental personnel to delineate wetlands if needed, and CWA permitting will be obtained if necessary prior to any site-disturbing activity that would impact Waters of the U.S.

#### 4.8.3 No-Action Alternative

Under this alternative, there would be no change to water resources at MAFB.





## **5.0 OTHER CONSIDERATIONS**

### **5.1 Cumulative Effects Analysis Approach**

Cumulative effects analysis considers the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects on environmental resources include activities that occur within the geographical reach of the resource (habitat, watershed, or other such reasonable limitation) and occur within a timeframe such that the resource has not had sufficient time to recover from the identified activity.

The range of discussion regarding the cumulative effects on the environment is limited to the resources that would be permanently negatively affected by the Proposed Action and identified past, present, and future actions. The depth of discussion has necessarily been limited by the level of information that exists regarding the past, present or future activities.

Resources identified with a potentially temporary, short-term negative effect include Air Quality, Noise, Soils, Transportation and Water Resources (Construction Stormwater). Resources identified with a potentially permanent negative affect include Hazardous Materials and Wastes, Transportation, Utilities, and Water Resources (Stormwater and Floodplains).

The ROI for cumulative consequences is generally limited to MAFB and the immediately adjacent properties, because impacts to resources resulting from the Proposed Action are limited to this area.

### **5.2 Current and Reasonably Foreseeable Actions within the ROI**

MAFB is a dynamic, active airfield with frequent facility upgrades and not all future upgrades can be predicted. The cumulative effects analysis included projects identified in the Environmental Assessment for Temporary Aircraft Relocation to Maxwell Air Force Base (USAF, 2012) and may be accessed for review at 42 CES/CEV, MAFB Environmental Office.



## **City of Montgomery**

Bell Street Neighborhood Plan (2008-2018) - Includes beautification and restoration projects for 603 acres south of Maxwell AFB. Project examples include creating a community garden, create an urban farm using existing vacant land, protect manufacturing zoning in the area, build a fishing pier along the river, change one-way streets to 2-way streets, and renovate the Day Street Park.

## **Maxwell AFB**

- Maxwell AFB plans to mill and overlay taxiways and runway 15/33.
- A road to connect S. Mitchell Street to the corner of Maxwell and LeMay is planned.
- There are plans to construct a new Air Traffic Control Tower (Air Force Reserve Command project) between Buildings 1454 and 1455; construct new ramp and engine run-up pad west of Buildings 1454 and 1455; and develop a new Assault Landing Zone in southwest quadrant of airfield. These preliminary plans are Air Force Reserve projects related to the 908th Airlift Wing Unit stationed at Maxwell and are dependent on potential 908th mission changes.
- The eastern end of Chestnut Street is planned to be closed, and several dorms and two parking structures are planned to be constructed in the area bounded by Chestnut Street to the south, LeMay Plaza to the west, March Road to the north, and Chennault Circle to the east. A large surface lot is planned to be constructed in the northwest quadrant of the intersection of Chestnut Street and LeMay Plaza. Future development is also planned to the west of this new lot and east of Keysor Pass, and newly constructed roadway to serve as alternate access to the Officers Training School.
- The existing area south of Pine Street and east of Selfridge Street may potentially be joined with the existing property off Base in the northwest quadrant of Maxwell Boulevard and Washington Ferry Road to become an air museum.
- The Federal Prison visitor parking lot may be relocated to an area east of Washington Ferry Road before the Maxwell Boulevard Gate.
- The Kelly Street Gate is being considered for closure. A truck inspection gate is being considered to the east of the existing Kelly Street Gate on Maxwell Boulevard or to the west of the Kelly Street Gate on Maxwell Boulevard in the vicinity of the existing baseball fields on the Base. Another potential gate location is being considered on U.S.

Highway 31 in the vicinity of Twin Lakes Parkway. Emergency access is being considered on the north of the Base west of Building 1481.

- A Skills Development Center/Family Support and Community Activities Center is planned to be constructed in the southwest quadrant of Selfridge Street and Cannon Street.
- The existing Commissary and Base Exchange are planned to be reconstructed and their layout reconfigured to provide shared parking between the two buildings.

### 5.3 Potentially Affected Resources

While the projects identified in the previous EA may take place during the five to ten-year period that the Proposed Action would occur, it is unlikely that any permanent significant effects would occur. See Table 5.1 for a summary of potential cumulative effects.

**Table 5.1: Summary of Potential Cumulative Effects**

Resource Area	Cumulative Effects
Air Quality	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously and would vary in duration. With proper controls these temporary emissions would not cause a significant effect on air quality at MAFB. When considered with other known projects, no significant cumulative effects are likely.
Hazardous Materials and Waste	<b>Not Significant.</b> Multiple ERP remediation projects are likely to occur simultaneous with the Proposed Action. All ERP remediation activities would have a beneficial effect on the management of hazardous materials and wastes. The large-quantity generator status would not change. When considered with other known projects, no significant cumulative effects are likely.
Noise	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously and would vary in duration. All construction activity would normally be limited to business hours and would not disrupt normal activities. When considered with other known projects, no significant cumulative effects are likely.
Socioeconomics and Environmental Justice	<b>Not Significant.</b> Short-term improvements would be expected resulting from various construction-related jobs that would occur simultaneous with the Proposed Action. Long-term improvements would include a slight increase in revenue at the FamCamp and an increase in affordable temporary housing for AU students. When considered with other known projects, no significantly adverse effects are likely.

Resource Area	Cumulative Effects
Soils	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously and would vary in the extent of soil disturbance. Proper construction best management practices would be implemented on all projects, in accordance with ADEM standards. When considered with other known projects, no significant cumulative effects are likely.
Transportation	<b>Not Significant.</b> Multiple construction projects could be underway simultaneously, potentially causing temporary traffic delays and inefficiencies within or around MAFB. Since the traffic delays would be temporary and short-term, when considered with other known projects, no significant cumulative effects are likely.
Utilities	<b>Not Significant.</b> Following the completion of identified projects, an increase in utility demand is likely. However, the utility providers currently have the capacity for the increased demand while maintaining regulatory compliance and minimal disruption to existing clients within MAFB and the surrounding areas. When considered with other known projects, no significant cumulative effects are likely.
Water Resources	<b>Not Significant.</b> Surface waters would be protected from potential run-off associated with construction activities by the use of perimeter controls and other measures. Some of the proposed actions would include activities (non-occupied structures) within the 100-year floodplain and a pond. The MAFB Environmental Office, 42 CES/CEV, will provide trained environmental personnel to delineate wetlands if needed, and Clean Water Act permitting will be obtained if necessary. Therefore, no cumulative effects are likely for water resources.

### 5.3.1 Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Nonrenewable resources cannot ever be replaced by natural processes or are not capable of naturally regenerating within the timeframe of human consumption cycles. These resources include fossil fuels, soil, water, plants and animals when consumption levels are greater than the naturally occurring renewal levels.

While fossil-fuel by-products (gasoline, diesel, and asphalt) would be used in the construction activities, the amount used in the Proposed Action is negligible when compared to the

availability of the resource. The soil, water, plants and animals would be displaced due to the Proposed Action, however, the minor displacement would not be considered significant. Neither the implementation of the Proposed Action nor the No-Action Alternative would cause a significant effect on non-renewable resources. Therefore, there are no irreversible and irretrievable commitments of resources associated with the Proposed Action or No-Action alternatives.

#### 5.3.2 Relationship of Short-term Uses and Long-term Productivity

Short-term use of the resources necessary to develop the facilities at the FamCamp would be related to construction, demolition and renovation activities. The long-term benefits of improved and expanded facilities would offset the short-term use of resources needed to implement the proposed action. For instance, increased temporary housing capacity at the FamCamp would result in reduced vehicle emissions by reducing the distance airmen attending the AU would otherwise travel if their housing was off-base. When compared to the long-term benefits of the proposed action, the short-term impacts are not significant.

## **6.0 REFERENCES**

### **6.1 List of Preparers**

Louise Duffy, Primary Author and Point of Contact  
TTL, Inc.

Sheryle Reeves, Senior Project Manager and Secondary Point of Contact  
TTL, Inc.

Dan Cooper, Regulatory Requirements Review  
TTL, Inc.

### **6.2 Documents and Publications**

MAFB 2007. Hazardous Waste Accumulation Site Log. Maxwell MSD/CEV, 2007.

MAFB 2008. Maxwell Training Facilities Environmental Assessment. October 2008.

MAFB 2011. Updated Community Relations Plan. June 2011.

MAFB 2011a. Draft Work Plan Interim Removal Action Military Munitions Response Program, Maxwell Air Force Base Alabama. November 2011.

MAFB 2012. Environmental Assessment for Temporary Aircraft Relocation to Maxwell Air Force Base. May 2012.

MAFB 2012a. Draft Report Remedial Investigation Military Munitions Response Program Maxwell Air Force Base Alabama. August 2012.

SERCC. Southeast Regional Climate Center. Accessed July 23, 2012.  
<http://www.sercc.com/cgi-bin/sercc/cliMAIN.pl?al5550>

US. Census Bureau. 2012. Quick Facts for Montgomery County, Alabama. Accessed via: [www.quickfacts.census.gov](http://www.quickfacts.census.gov). Accessed on June 20, 2012.

USGS. 1953. Topographic Map of Montgomery County. Accessed via: [www.ESRI.com](http://www.ESRI.com). Accessed on June 12, 2012.

## **APPENDIX A**





July 10, 2012

Ms. Augustine Asbury,  
Alabama-Quassarte Tribal Town  
101 East Broadway  
Wetumka, OK74883

RE: Proposed Family Campground Expansion  
Maxwell Air Force Base, Alabama

Dear Ms. Asbury,

The United States Air Force (USAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). The Air Education and Training Command (AETC) and the 42d Air Base Wing (ABW) propose to improve and expand the facilities at the existing Family Campground (FamCamp) at Maxwell Air Force Base (AFB). Improved facilities are needed to support the increasing demand for camping spaces and associated amenities. The Proposed Action would improve opportunities for rest and recuperation, as well as temporary housing, for Airmen and their families at the existing FamCamp.

Under the Proposed Action, the improvements would occur within the previously disturbed areas of the FamCamp area, which is located near the southwest portion of Maxwell AFB (see Figure 1). The Proposed Action includes the following tasks:

Task 1 includes replacing an existing temporary modular bath house with a permanent bath house and laundry room. The proposed action would include demolishing the temporary structure; removing the existing septic tank; and constructing a permanent facility. The new facility would tie in to the existing sanitary sewer line.

Task 2 includes a major renovation of the existing concrete bath house located near the existing administrative building. Renovations would include reconfiguring the stalls, upgrading the plumbing, fixtures, lighting, flooring and electrical system.

Task 3 includes constructing a new boat dock, fishing pier and aeration fountains to the existing ponds. Constructing a fishing pier and boat dock would provide visitors an easy and safe access to deeper water.

Task 4 includes expanding existing administrative and recreation facilities. The new facility would combine administrative offices with a community meeting room or indoor recreational space. The specific location within the FamCamp has not been identified.

Task 5 includes reconfiguring seven existing trailer pads near the southeastern corner of the southern lake, resulting in 13 trailer pads within the same footprint. A new gravel access road would also be constructed to improve vehicle access along the western side of the new pads.

Task 6 includes constructing twelve trailer pads along the southwestern portion of the property. This would include widening an existing access road, constructing a new gravel access road and improving an existing gravel drive. Improvements in this area would also include a new bathhouse and laundry facility; a picnic pavilion; a dumpster pad and two playground areas.

Task 7 includes creating new camping spaces on the east side of March Road, just north of the existing ball fields. The new camping spaces would provide 12 full utility hook-ups and a new gravel access road east of March Road.

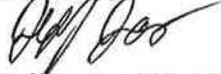
Some of the Proposed Actions would occur within the 100-year floodplain. The EA will evaluate the potential effects on the human and natural environment that may result from the implementation of the Proposed Action. The USAF will also consider the potential effects of the No-Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs* and Air Force Instruction 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning* (IICEP), we are requesting any comments or concerns you may have with the proposed project. In order to properly evaluate cumulative impacts, we are also requesting that you identify any major projects (recently conducted, presently underway, or planned for the near future) that are in the vicinity of the Proposed Action.

Please send your comments, concerns and identified projects to Mr. Jeff Jones within 30 days of receipt of this letter.

We appreciate your assistance in the matter and look forward to hearing from you. If you have any questions about this request, please contact Mr. Jeff Jones by phone at (334) 953-5757 or email at [Jeffery.Jones@maxwell.af.mil](mailto:Jeffery.Jones@maxwell.af.mil).

Sincerely,



Jeff Jones, CSP, CHMM, CHST  
ESH Manager  
ITT Exelis, Mission Systems  
42 CES/CEV

Enclosures

Figure 1 – Location Map of the Proposed Action

Figure 2 – Location of Proposed Action Tasks





Figure 1  
Location Map of the Proposed Action  
Maxwell AFB, Alabama





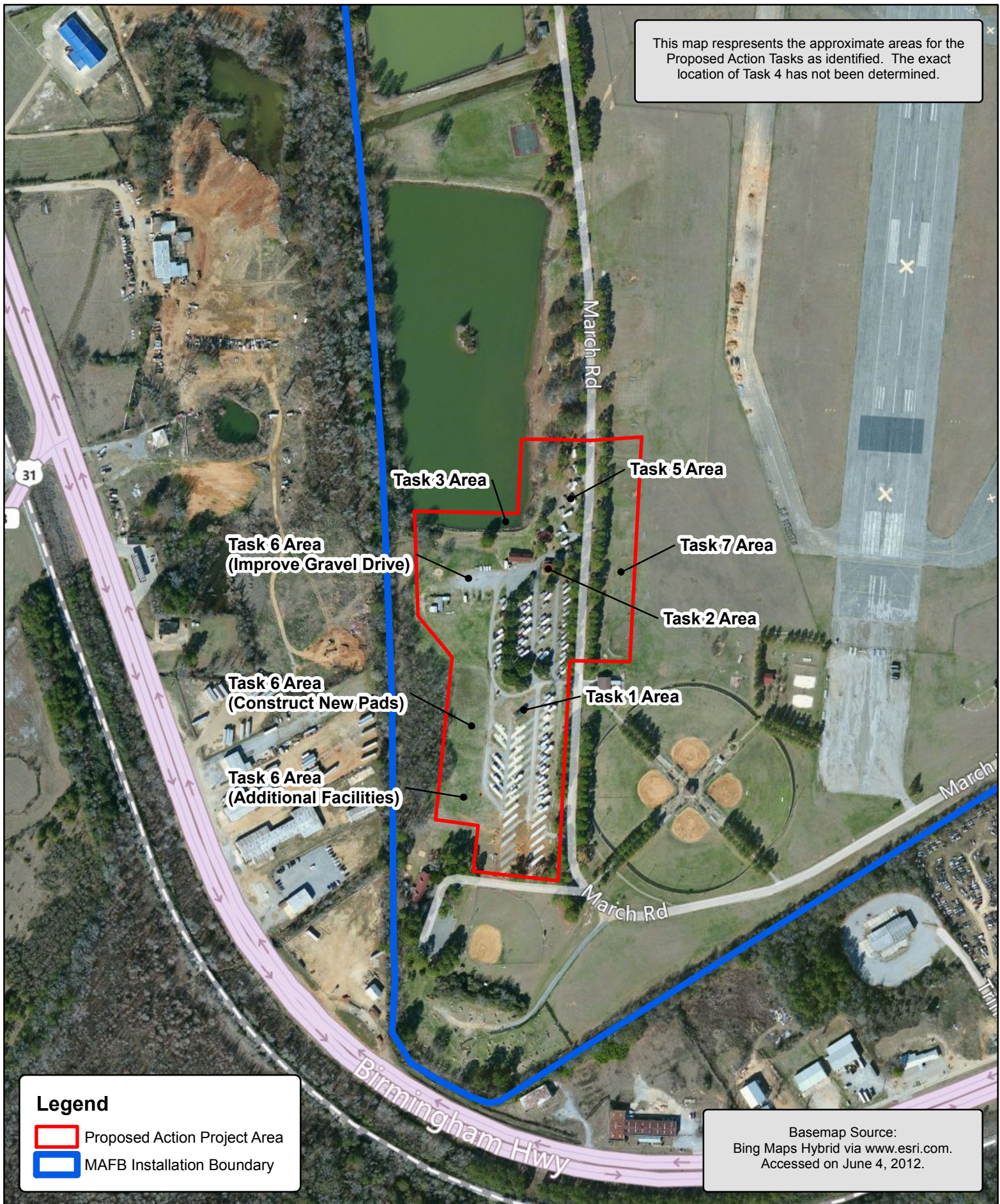


Figure 2  
Location of Proposed Action Tasks  
Maxwell AFB, Alabama





## IICEP MAILING LIST

Mr. Larry O. Gissentanna  
DoD and Federal Agency, Proj. Mgr  
NEPA Program Office  
U.S. Env. Protection Agency, Region 4  
61 Forsyth St SW  
Atlanta, GA 30303-8960

Mr. William Straw Regional  
Environmental Officer  
Federal Emergency Management  
Agency  
3003 Chamblee Tucker Rd  
Atlanta, GA 30341

Mr. Craig J. Litteken, Chief  
U.S. Army Corps of Engineers  
Mobile District  
PO Box 2288  
Mobile, AL 36628-0001

Mr. Bill Pearson Field Supervisor  
U.S. Fish and Wildlife Service  
Alabama Ecological Services Field Office  
1208-B Main St  
Daphne, AL 36526

Chief  
U.S. Fish and Wildlife Service  
Division of Endangered Species  
1875 Century Blvd, Ste 200  
Atlanta, GA 30345

Mr. Mark Bartlett  
Federal Highway Administration  
Alabama Division  
9500 Wynlakes Pl  
Montgomery, AL 36117

Department of Housing and Urban  
Development  
950 22nd St N, Ste 900  
Birmingham, AL 35203-5302

Mr. Lance LeFleur, Director  
Alabama Department of Environmental  
Management (ADEM)  
1400 Coliseum Blvd  
Montgomery, AL 36110-2400

Director  
AL Department of Industrial Relations  
649 Monroe St  
Montgomery, AL 36130

Commissioner  
AL Department of Agriculture and  
Industry  
1445 Federal Dr  
Montgomery, AL 36107

Commissioner N. Gunter Guy, Jr.  
Alabama Department of Conservation  
and Natural Resources  
64 N Union St  
Montgomery, AL 36130

Mr. Fred Harders, Assistant Director  
Alabama Department of Conservation  
and Natural Resources  
Division of Wildlife and Freshwater  
Fisheries  
64 N Union St  
Montgomery, AL 36130

Mr. J. Brian Atkins, P.E.  
Division Director  
Alabama Office of Water Resources  
401 Adams Ave, Ste 434  
Montgomery, AL 36104

Mr. Alfredo Acoff  
Environmental Coordinator  
Alabama Department of Transportation  
- Design Bureau  
1409 Coliseum Blvd  
Montgomery, AL 36130-3050

Alabama Emergency Management  
PO Box 2160  
Clanton, AL 35046-2160

The Honorable Todd Strange, Mayor  
City of Montgomery  
PO Box 1111  
Montgomery, AL 36101

Mr. Donald L. Mims  
Montgomery County Administrator  
PO Box 1667  
Montgomery, AL 36102-1667

Mr. George C. Speake, PE/LS  
Montgomery County Engineer  
PO Box 1667  
Montgomery, AL 36104

Mr. Joe Greene  
Vice President, Military and Federal  
Affairs  
Montgomery Area Chamber of  
Commerce  
41 Commerce St  
Montgomery, AL 36101

Mr. Greg Clark  
Executive Director  
Central Alabama Regional Planning  
and Development Commission  
430 S Court St  
Montgomery, AL 36104

Mr. Michael Churchman  
Executive Director  
Alabama Environmental Council  
2027 Second Ave N  
Birmingham, AL 35203

Chairman  
The Alabama Conservancy  
1920 Roasqlie Ridge  
Huntsville, AL 35811

Conservation Chairman  
Sierra Club  
Alabama Chapter  
PO Box 395  
Double Springs, AL 35553

Alabama Power Company  
Corporate Real Estate  
PO Box 2641  
Birmingham, AL 36107



Ms. Elizabeth Brown  
Deputy State Historic Preservation  
Officer  
Alabama Historical Commission  
468 S Perry St  
Montgomery, AL 36130-0900

Mr. Robert E. Smith  
Director of Planning and Development  
City of Montgomery Planning  
Department  
103 N Perry St  
Montgomery, AL 36104

Ms. Nancy Carnley  
Chairperson  
Alabama Indian Affairs Commission  
771 S Lawrence St, Ste 106  
Montgomery, AL 36130

Mr. Jim Byard  
Alabama Department of Community and  
Economic Affairs (ADECA)  
PO Box 5690  
Montgomery, AL 36103-5690

Mr. Elton N. Dean, Chairman  
Montgomery County Commission  
PO Box 1667  
Montgomery, AL 36102-1667

Ms. Bryant Celestine  
Tribal Historic Preservation Officer  
Alabama-Coushatta Tribe of Texas  
571 State Park Road 56  
Livingston, TX 77351

Ms. Augustine Asbury  
Alabama-Quassarte Tribal Town of the  
Creek Nation  
17 N Main  
Wetumka, OK 74883

Mr. Tiger Hobia  
Kialegee Tribal Town of the Creek  
Nation of Oklahoma  
Mekko  
PO Box 332  
Wetumka, OK 74883

Mr. Kenneth H. Carleton  
Tribal Archaeologist  
Mississippi Band of Choctaw Indians  
PO Box 6257  
Choctaw, MS 39350

Mr. Ted Isham  
Cultural Preservation  
Muscogee (Creek) Nation  
PO Box 580  
Okmulgee, OK 74447

Ms. Edie Jackson  
Tribal Administrator  
Poarch Band of Creek Indians  
5811 Jack Spring Rd  
Atmore, AL 36502

Mr. Charles Coleman  
Tribal Historic Preservation Officer  
Thlopthlocco Tribal Town  
PO Box 188  
Okemah, OK 74859

## Scoping Comments and Responses

Agency/Commenter	Topic of Concern	MAFB Response
U.S. Army Corps of Engineers	Waters of the United States	Clean Water Act permits will be obtained through the Corps of Engineers prior to any site-disturbing activity that would impact Waters of the U.S.
U.S. Army Corps of Engineers	Wetlands or other federal resource areas that may be impacted in the project area	The MAFB Environmental Office, 42 CES/CEV, will provide trained environmental personnel to delineate wetlands if needed, and Clean Water Act permitting will be obtained if necessary.
Alabama Dept. of Conservation and Natural Resources	State water quality standards and BMPs	Activities will be in compliance with state standards and MAFB Stormwater Management Program Plan. Appropriate BMPs will be implemented for construction activities.
ADEM Water Division	NPDES Permit	NPDES permits will be obtained, if required, as proposed projects are implemented.
ADEM Water Division	BMPs	Activities will be in compliance with state standards and MAFB Stormwater Management Program Plan. Appropriate BMPs will be implemented for construction activities.
ADEM Water Division	CWA permitting	Clean Water Act permits will be obtained through the Corps of Engineers prior to any site-disturbing activity that would impact Waters of the U.S. or Waters of the State.
ADEM Water Division	Coordination with other agencies potentially having jurisdiction	Scoping letters were sent to applicable agencies. Agencies will also be given opportunity to coordinate and comment on the Draft Environmental Assessment.
EPA	Purpose and Need	The EA will include the Purpose and Need

EPA	Air Quality	Air quality will be assessed in the EA. Lead and Asbestos will be handled in accordance with all applicable regulations and MAFB protocols.
EPA	Noise	Noise will be assessed in the EA. After the temporary construction phase, no increase in noise levels is expected above baseline levels.
EPA	Waters of the United States	The EA will address the potential presence of wetlands, Waters of the U. S. and endangered species. Clean Water Act permits will be obtained through the Corps of Engineers prior to any site-disturbing activity that would impact Waters of the U.S.
EPA	Environmental Justice	The proposed action is expected to have minimal impact to the surrounding community, as the actions are largely confined to the military installation and its personnel. No disproportionate impacts are expected to minority or low-income populations.
EPA	NPDES	NPDES permits will be obtained, if required, as proposed projects are implemented.
EPA	Ground Water Quality	The proposed action is not expected to impact ground water.
EPA	Cultural Resources	Maxwell AFB and its outlying training areas have been surveyed for archaeological resources. None were identified within the project area.
EPA	Cumulative Impacts	The EA will address Cumulative Impacts.
EPA	Recycling	Recycling will be accomplished in accordance with MAFB Solid Waste Management Plan.
EPA	Energy	Potential new buildings will be in compliance with federal and AF design, construction and energy standards.

## **OSGOOD, BETH A CTR USAF AETC 42 CES/CEV**

---

**From:** JONES, JEFFREY L CTR USAF AETC 42 CES/CEV  
**Sent:** Monday, September 10, 2012 9:05 AM  
**To:** OSGOOD, BETH A CTR USAF AETC 42 CES/CEV  
**Subject:** FW: Proposed Family Campground Expansion Maxwell Air Force Base, Alabama  
**Attachments:** Federal Energy Sustainable\_mou.pdf; usace\_ewcdr\_execsummary.pdf; CD\_memo\_06\_Feb\_06.pdf; pwtb\_200\_1\_23.pdf  
**Signed By:** jeffrey.jones.42.ctr@us.af.mil

FYI

-----Original Message-----

**From:** Larry Gissentanna [mailto:Gissentanna.Larry@epamail.epa.gov]  
**Sent:** Monday, September 10, 2012 8:58 AM  
**To:** JONES, JEFFREY L CTR USAF AETC 42 CES/CEV  
**Cc:** Heinz Mueller; Traci Buskey  
**Subject:** Proposed Family Campground Expansion Maxwell Air Force Base, Alabama

ITT Systems Corporation  
Maxwell Base Operating Services  
Attn: Mr Jeff Jones, ESH Manager  
400 Cannon Street  
Maxwell AFB, AL 36112

Dear Mr Jeff Jones,

Consistent with Section 102(2)(c) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) appreciates the opportunity to provide scoping comments on the Proposed Environmental Assessment for the Proposed Family Campground Expansion at Maxwell Air Force Base, Alabama.

EPA's preliminary concerns at this time can be summarized to include the following:

\* **Purpose & Need** - The Draft Environmental Assessment (EA) must have a purpose and need paragraph that will discuss in detail the purpose for this project or improvements, and why this project is necessary. Also set the criteria for which alternatives can be accessed or compared to.

\* **Air Quality** - The project must also be consistent with General Conformity requirements to the extent that predicted air emissions are above de minimis levels for this proposal. Additional air quality concerns include the secondary impacts often associated with the demolition and construction of buildings. We encourage you to work with the Alabama Department of Environment Management (ADEM) to ensure consistency in your emissions estimates and the Alabama State Implementation Plan (SIP). EPA recommends that the project implement overall diesel emission reduction activities through various measures such as: switching to cleaner fuels, retrofitting current equipment with emission reduction technologies, exchanging older engines with newer cleaner engines, replacing older vehicles, and reducing idling through operator training and/or contracting policies. EPA can assist in the future development or implementation of these options. EPA would also be concern about Lead and Asbestos containing material located throughout the building proposed for demolition. The Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) contained in 40 C.F.R. Part 61, Subpart M would be applicable to the renovation and the demolition of these buildings. Among other requirements, the buildings would have to be thoroughly inspected for

asbestos and the asbestos would have to be properly removed prior to demolition. If the buildings were simply abated, that would also have to be done in accordance with the applicable notification, work practice, and disposal requirements of the NESHAP if threshold amounts of asbestos were involved.

\* Noise - The selected site should minimize noise impacts to any nearby residents during demolition and construction.

\* Waters of the United States - Consistent with Section 404 of the Clean Water Act, the selected site should avoid and minimize, to the maximum extent practicable, placement of fill into jurisdictional waters of the United States, which include wetlands and streams. If any proposed site should be assessed (delineated) for the presence of federally jurisdictional waters. It should be noted that jurisdictional waters of the United States can differ from waters of the State subject to State of Alabama laws and regulations, and which are the basis for any County issued permits. According to the map provided with the scoping letter, the wetland requirements should not be an issue. However, any fill material in waters of the United States will require a permit or authorization from the Atlanta Office of the Mobile District U.S. Army Corps of Engineers (COE). We encourage you to initiate coordination with the COE as soon as your preferred site is identified and if there will be wetland or stream impacts associated with the project. The COE permit review process, if necessary, will require presentation of all alternative sites evaluated for the project along with measures to avoid or minimize impacts on your preferred site. As part of the permit process, the COE will also require an assessment of archeological and historic resources on the entire project site and the identification of any potential impacts to federally listed threatened and endangered species. EPA is involved in the review of all of this information as part of the COE Section 404 permit process. Any wetland or stream losses allowed under a COE Section 404 permit will also have to be mitigated by the applicant. This mitigation can be designed and implemented by the applicant or procured by the purchase of wetland and/or stream mitigation credits from a commercial wetland mitigation bank. Wetland and stream mitigation can add considerable expense to any project, which is another good reason to avoid and minimize those impacts. The EA should address the presence and or absence of wetlands and endangered species of the proposed site.

\* Environmental Justice (EJ) - The environmental, socioeconomic and health related impacts to potential EJ populations should be evaluated in the proposed EA. The demographics of the area should be documented in terms of the existence of minority and low-income populations. This description should include US Census data for the geographic unit(s) such as the Census Block Group(s) (BGs) encompassing the airport. At a minimum, the percentages of minority and low-income populations within these BGs should be documented and compared against other demographics of the area, as well as against the percentages of neighboring BGs, counties and the State of Alabama. In addition, other demographic factors like population age, density, literacy, etc. may also be important to the overall assessment. Meaningful collaboration with the community can also help to identify whether any "pockets" (concentrations) of EJ communities exist within a BG that otherwise (as a whole) may have a relatively low percentage of minorities and low-income populations. We suggest coordination with local community leaders and groups in an effort to engage these communities in the scoping, assessment and project design process. The EA should include maps of the surrounding communities and indicate the proximity of communities with potential EJ concerns to the proposed project area.

Depending on the outcome of the EJ assessment, it may be necessary to enhance public participation with susceptible EJ communities to better understand their concerns and to identify whether there is an increased potential for exposure to environmental hazards associated with the demolition and construction of the proposed project. The EA should identify whether multiple or cumulative impacts are likely to occur. Any benefits to the affected communities that may be derived from the project should be also included in the EA including any construction or operation jobs related to the proposed demolition and



construction, or local training for those jobs. If the environmental impacts of the proposed project appear to fall disproportionately minority and/or low income populations, then mitigation options should also be considered.

For additional information, EPA Region 4's interim EJ policy can be emailed upon request. EPA Guidance for Consideration of EJ in Clean Air Action Section 309 Reviews and EPA Guidance for Incorporating EJ Concerns in EPA's NEPA Compliance Analyses can be found at our website at <http://www.epa.gov/compliance/resources/policies/nepa/index.html> [<http://www.epa.gov/compliance/resources/policies/nepa/index.html>](http://www.epa.gov/compliance/resources/policies/nepa/index.html) . Demographic information can be found at the U.S. Census Bureau -2010, U.S. Bureau of Labor Statistics, LAUS, and U.S. Bureau of Economic Analysis, REIS, 2005. Publically available EPA Web-based tools can also be used to conduct preliminary screening level EJ reviews. EJView: <http://epamap14.epa.gov/ejmap/entry.html> [<http://epamap14.epa.gov/ejmap/entry.html>](http://epamap14.epa.gov/ejmap/entry.html) and NEPAassist: <https://oasext.epa.gov/NEPA/> [<https://oasext.epa.gov/NEPA/>](https://oasext.epa.gov/NEPA/) . The information from these sources should be used in conjunction with information acquired the public involvement, community interviews, surveys and ground verification processes. Additional EJ clarification is available through Ntale Kajumba at 404/562-9620 or [kajumba.ntale@epa.gov](mailto:kajumba.ntale@epa.gov)).

\* NPDES - National Pollutant Discharge Elimination System (NPDES) permit coverage for both project construction and operation are needed for point-source discharges. Although EPA retains oversight for the delegated NPDES Program, contact Alabama NPDES Stormwater for your permitting requirements for this project.

\* Ground-Water Quality - In addition to waters of the United States and NPDES issues, there may be additional water quality concerns for the proposal that relates to the groundwater. According to the initial scoping letter, it appears that the modular bath will be demolished, to include removing the septic tank and field drain lines. Also, consider investigating if the use of Underground Storage Tanks (UST) were used to store heating oil on this site, if so, these tanks will have to be removed prior to construction and any contamination remediated. If there are any monitoring well-heads within the proposed construction sites, they should be protected from damage during destruction and construction. If monitoring wells are found, properly closed them to prevent ground water contamination.

\* Cultural Resources - Coordinate with the Alabama State Historic Preservation Office (SHPO) to implement measures to avoid, minimize, or mitigate any adverse effect of Impacts to any historic and archaeological resources in the areas.

\* Cumulative Impacts - The EA should also consider the cumulative impacts of the proposed project, particularly for those impacts generated by the project (e.g., noise and air quality). That is, the EA should discuss all (federal and non-federal) past, present, proposed and future (foreseeable within some 10-15 yrs) projects that are within the designated project area or affect that area (e.g., air/water). Such project areas are often designated by logical geographic boundaries such as watersheds, or by other methods. The cumulative impact analysis can be important for even small projects if their proposed location is in an area that is already extensively developed.

\* Recycling - Consider an aggressive recycling program for the buildings planned for demolitions. Divert as much material from the landfill as possible. Please see attached for additional info.

\* Energy - Consider energy sustainable buildings utilizing variable forms of proven alternative energy applicable for this area. Please see attached for additional info. [http://www.wbdg.org/references/federal\\_mandates.php](http://www.wbdg.org/references/federal_mandates.php) [<http://www.wbdg.org/references/federal\\_mandates.php>](http://www.wbdg.org/references/federal_mandates.php)

(See attached file: usace\_ewcdr\_execsummary.pdf)(See attached file: Federal Energy Sustainable\_mou.pdf)(See attached file: CD\_memo\_06\_Feb\_06.pdf)(See attached file: pwtb\_200\_1\_23.pdf)

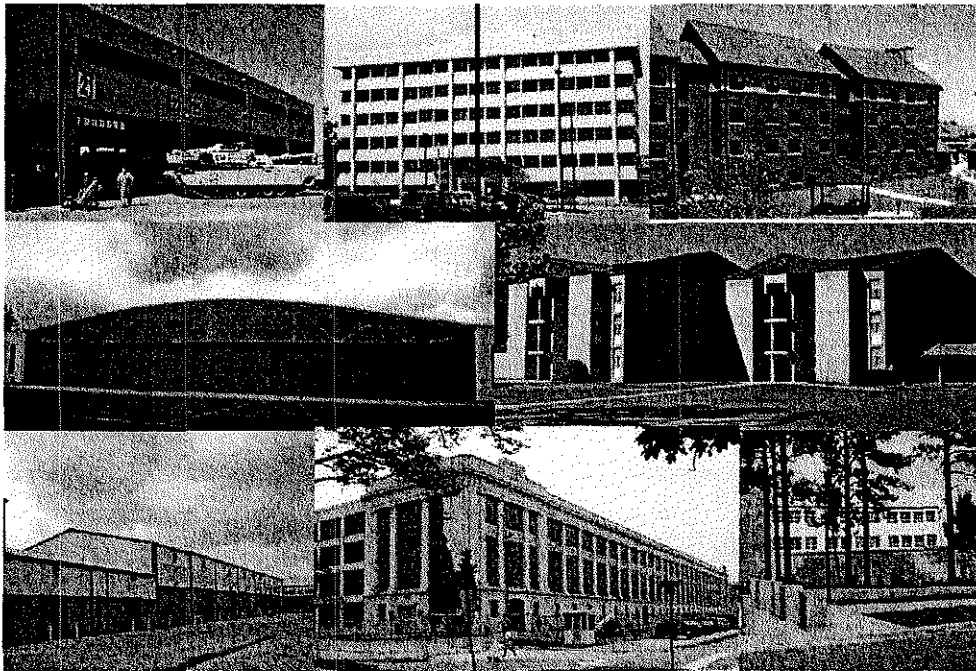
Again, Thank you for the opportunity to provide comments to your proposed project, Please provide this office a copy of the Draft EA. If you have any question, feel free to contact me via the information provided below.

Larry O. Gissentanna  
DoD and Federal Agency, Project Manager  
NEPA Program Office  
U.S. Environmental Protection Agency/ Region 4  
61 Forsyth Street, SW  
Atlanta, GA 30303-8960  
Office: 404-562-8248  
gissentanna.larry@epa.gov



**US Army Corps  
of Engineers®**  
Engineer Research and  
Development Center

## **Energy and Water Conservation Design Guide (for Sustainment, Restoration and Modernization [SRM] Projects and MILCON Construction)**



Prepared for Installation Management Command (IMCOM)  
2511 Jefferson Davis Highway  
Taylor Bldg., Rm 11E08  
Arlington, VA 22202-3926

Prepared by: Engineer Research and Development Center (ERDC)  
Construction Engineering Research Laboratory (CERL)  
PO Box 9005  
Champaign, IL 61826-9002

# Energy and Water Conservation Design Guide (for Sustainment, Restoration and Modernization [SRM] Projects and MILCON Construction)

## 1 Relevant Policies & Guidance

1.1 All Sustainment, Restoration and Modernization (SRM) funded projects for repair, maintenance, and new work, along with all MILCON construction projects shall comply with and, where applicable, contribute toward the goals specified in the Energy Policy Act of 2005 (EPACT 2005), Energy Independence and Security Act of 2007 (EISA 2007), Executive Order (EO) 13423, Executive Order (EO) 13514, the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings, Leadership in Energy and Environmental Design (LEED) Energy and Atmosphere (EA-1), and other current policies and directives on energy and water conservation listed at Tab 1.

1.2 All SRM projects for major renovations of existing buildings and all new construction projects, regardless of funding source, shall meet the requirement of EPACT 2005 to reduce energy consumption by 30% compared to a facility designed in accordance with ASHRAE 90.1-2004. Building modifications are classified as a major renovation when the cost of the renovation project exceeds 25% of the building's plant replacement value (PRV); with the project including some or all of the following elements: alteration of overall features of the building's envelope, substantial replacement of the building's lighting, plumbing, electrical, and/or heating, ventilating, and air-conditioning (HVAC) systems in combination with other significant alterations of the building's spaces. Building projects classified as major renovation projects, i.e., exceeding 25% of PRV, will comply with all energy and water conservation requirements, and all methods and standards applicable to new construction, such as to bring the entire building into compliance with current energy and water conservation criteria. All building components and systems being renovated or replaced must comply with their respective energy and water conservation criteria.

**Building modifications are classified as a major renovation if the cost of the project exceeds 25% of the building's Plant Replacement Value (PRV)**

1.3 All SRM projects for major renovations of existing buildings and all new construction projects, regardless of funding source, shall install advanced utility meters for measuring electric, natural gas, potable water, steam, hot water and chilled water consumption.

1.4 The target energy consumption of the building (excluding plug and process loads) conforming with the requirements of EPACT 2005 for selected Army facilities and different Department of Energy (DOE) climate zones in kBtu per ft<sup>2</sup> per year not to be exceeded are listed at Tab 2, Tables 3 -17. The use of the Prescriptive Technology Solution Sets, listed in Tabs 3-10, Tables 1 – 8 in each Tab (numbered respectively by Attachment, e.g., Table 3-1, Table 4-1, etc), and discussed at Tabs 14-16, will result in an annual energy consumption less than or equal to the target energy budget figure, meets life-cycle cost effectiveness requirements, and does not require calculations according to ASHRAE Standard 90.1 Appendix G. When Prescriptive Technology Solution Sets are used, mandatory requirements of ASHRAE Standard 90.1-2007 shall also be met. For the building types addressed at Tab 2, requirements of EPACT 2005 can also be met using designer-developed specific technology sets. In this case, to prove that target energy consumption budgets are met, calculations prescribed in ASHRAE Standard 90.1 Appendix G shall be performed and a life-cycle cost effectiveness analysis shall be provided.

1.5 Our long-term goal is to foster Net Zero/Low Energy Installations. Through a combination of renewable generation, energy efficiency, and energy conservation, we intend to produce as much as or more than what we consume over the course of 1 year. To comply with the requirements of EISA 2007 to eventually eliminate fossil fuel use, new buildings and buildings undergoing major renovations shall be designed so that consumption of energy generated by fossil fuels (including electricity generated by fossil fuels) is reduced, as compared to energy consumption by a similar building in Fiscal Year 2003 (FY03) (as measured by the Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency), by the percentage listed in Table 1.

Table 1. Percentage reduction in energy generated by fossil fuels by FY.

FY	Reduction (%)
2010	55
2015	65
2020	80
2025	90
2030	100

1.6 Where conflicts arise between or among the laws, Executive Orders, standards and requirements, the more stringent policy or standard shall take precedence. Where comparisons against "similar buildings" are required, comparators shall be selected from the Commercial Buildings Energy Consumption Survey (CBECS for commercial buildings) or Residential Energy Consumption Survey (RECS for residential buildings).<sup>1</sup>

## 2 Holistic View

2.1 Limiting energy and water conservation efforts to the extent of EPACT 2005 requirements will not allow the Army to meet EISA 2007 goals in the future. To comply with EISA 2007 future requirements, installations shall:

- a. Develop holistic energy and water system concepts and apply them installation-wide through Comprehensive Energy and Water Master Plans, setting new more stringent energy and water reduction targets for SRM and new construction projects. Unless it is demonstrated not to be life-cycle cost (LCC) effective (calculated with a building life of 40 years), incorporate energy conservation measures capable of reducing energy consumption by as much as 30-50% in addition to the current Army requirements for 30% energy use reduction listed in UFC-3-400-01, depending on climate, and use renewable energy sources.
- b. Execute SRM projects by building clusters with the potential to integrate these clusters into the low energy community/installation. Incorporate advanced technologies in new construction and renovation projects. Use a holistic approach and request commitment from all stakeholders (master planning, resource management, project management, design, construction, O&M, and building users).

2.2 The terms "holistic," "holistic approach," and "whole building design approach" specifically refer to an approach that analyzes, assesses, and designs a building site and comprising buildings or facilities as a whole system rather than as a collection of individual buildings, their parts, or subsystems. The holistic approach shall be used to ensure that the following elements are taken into consideration to

---

<sup>1</sup> [www.eia.doe.gov/emeu/cbecs](http://www.eia.doe.gov/emeu/cbecs) and <http://www.eia.doe.gov/emeu/recs>

produce a superior functional and resource-efficient product:

- a. Building site concepts, designs, systems and subsystems **and**
- b. Building function, occupant needs and appliance selections **and**
- c. Interior and exterior environmental factors **and**
- d. Installation-wide energy, water, resource, and environmental plans **and**
- e. Commitment from stakeholders including master planning, resource management, project management, design, construction, O&M, and building users **and**
- f. Intelligent resolution of the interactions, synergies and conflicts among these elements.

2.3 A whole building design approach shall integrate different building elements and systems to optimize the overall project sustainability, and water and energy efficiency. Integration of the mechanical systems design must be coordinated with the designs of other involved building systems and features, including the building envelope, lighting system, and occupant activities. The appropriate HVAC design solution shall be determined only after the requirements and contributing thermal loads of these interrelated systems have been thoroughly reviewed and all possible efficiency gains through sustainable design strategies have been carefully considered.

### **3 Building Sustainability, Occupant Well-being and Productivity**

3.1 Buildings shall be designed and maintained to meet thermal requirements, which include criteria for thermal comfort and health, process needs, and criteria preventing mold, mildew and other damage to the building materials or furnishings listed at Tab 17.

3.2 New construction and major renovation design shall integrate building systems that meet hygro-thermal requirements to prevent mold and mildew contamination, and that include criteria for building envelopes, HVAC systems, and interior finishes such as paint, wall coverings, etc., as listed at Tab 11. Interior spaces of existing buildings to be renovated shall be visually inspected for mold and mildew growth. Visually suspect mold or mildew shall be tested by one of the methodologies listed at Tab 11 (Section 11.5, "Hygro-Thermal Requirements for Building Envelopes" (p 11-28). If mold or mildew contamination is detected, the cause of the problem shall be determined and the mold or mildew contamination remediated as appropriate.

3.3 Use of vinyl wall covering in locations with predominant air conditioning loads rather than heating loads is prohibited. Vinyl wall covering is a vapor barrier that, in buildings with poor vapor barriers, e.g., most barracks and unit operations buildings, trap moisture in walls causing rapid destruction of the wall systems and hidden mold growth. Replace vinyl wall coverings with latex painted surfaces that will permit transmission of moisture into conditioned space where it can dry, rather than trapping it in the walls.

### **4 Subsystem Design - Additional Guidance**

4.1 ENERGY STAR®: In all new facilities and

#### **Mold & Mildew**

**Mold and mildew contamination originates from a water problem.**

**Possible causes of the problem include:**

- 1. Improperly designed and /or constructed exterior walls & roofs.**
- 2. Improperly designed, constructed, operated or maintained HVAC systems.**
- 3. Water leaks or condensation from piping or plumbing systems.**



## **Energy and Water Conservation Design Requirements for SRM Projects**

---

major renovations, only ENERGY STAR® or FEMP designated products shall be purchased and installed, when such products are commercially available.

**4.2 Commercial kitchen appliances** shall be either ENERGY STAR®, FEMP designated or qualified for California Utilities Rebate Program <http://www.fishnick.com/saveenergy/rebates/>.

**4.3** All energy consuming products shall also be designated as using “low standby power” as required by EO 13221. Instructions on how to determine what qualifies as “low standby power” by product type can be found at: [http://www.eere.energy.gov/femp/procurement/eeep\\_standby\\_power.html](http://www.eere.energy.gov/femp/procurement/eeep_standby_power.html)

**4.4 Motors:** NEMA Premium grade motors that conform to NEMA MG1, and wherever possible, shall at a minimum use Class F insulation. Motors with efficiencies lower than NEMA Premium standard grade may only be used in unique applications that require a high constant torque speed ratio (e.g., inverter duty or vector duty that conform to NEMA MG1, part 30 or part 31).

**4.5 Building Envelope Insulation:** Insulation levels must meet or exceed requirements listed at Tab 11, Tables 11-1 – 11-7.

**4.6 Windows:** Must meet or exceed requirements listed at Tab 11, Tables 11-1 – 11-7.

### **4.7 Building Air Tightness and Air Barrier Continuity:**

**4.7.1.** New administrative-type buildings, office portions of mixed office and open space (e.g., company operations facilities, dining, barracks and instructional/training facilities) and all buildings undergoing major renovations shall be designed and constructed with a continuous air barrier to control air leakage into, or out of, the conditioned space. Mandatory requirements for the continuous air barrier design and construction and guidelines on sealing air leakage pathways in buildings undergoing renovation are provided at Tab 12.

**4.7.2.** Barrier conformance shall be demonstrated using test procedures outlined at Tab 13, and complemented using Infra-Red (IR) Thermograph tests. Remediation guidance is listed at Tab 14.

**4.7.3.** Garrisons will ensure contract specifications address proper envelope sealing and that Construction Quality Assurance plans/practices give this a priority.

### **4.8 Roofs**

**4.8.1.** In climate zones 1 to 5, reflective “cool” roofs shall be installed on all new construction or planned re-roofing projects over air conditioned spaces in buildings (see Tab 11, Section 11-4 [p 11-22]) .

**4.8.2.** All climate zones: reflective “cool” roofs shall be installed on industrial, ventilated, and heat only buildings (not air-conditioned buildings).

### **4.9 Lighting**

**4.9.1.** All areas shall be designed to provide the correct lighting level for the tasks expected to be performed (see Tab 19).

**4.9.2.** Use only ENERGY STAR® or FEMP designated lighting technologies (see Tab 19). T-8 lamps with instant start electronic ballasts shall be the standard.

**4.9.3.** Maximize use of lighting controls, e.g., occupancy sensors where appropriate.

## **Energy and Water Conservation Design Requirements for SRM Projects**

---

4.9.4. Light Emitting Diodes (LEDs) should be considered for all exterior parking/street lights and exit lighting. Parking/street lights should be controlled with photocells. Consider solar-powered lighting for exterior applications.

4.9.5. Eliminate the use of incandescent light bulbs to the maximum extent possible. Replacing incandescent bulbs with compact fluorescent lamps (CFLs) can reduce consumption by 60-70% per lamp.

**4.10 Plumbing/Water Conservation.** All SRM and new construction projects shall apply the DOE Federal Energy Management Program Best Management Practices for Water Conservation [http://www1.eere.energy.gov/femp/water/water\\_bmp.html](http://www1.eere.energy.gov/femp/water/water_bmp.html) and include the following water conservation measures:

- g. Eliminate leaks in dripping faucets, pipes, toilets, urinals, steam lines and traps
- h. Install or convert to ultra-low flow fixtures (e.g., toilets, showerheads and kitchen pre-rinse spray valves (PRSV) with low flow nozzles)
- i. Install or convert to only ENERGY STAR® Commercial Dishwashers
- j. Install or convert to only High-efficiency clothes washers (HEW)
- k. Install or convert to water-conserving cooling towers designed with delimiters to reduce drift and evaporation
- l. Recover non-sewage waste water for on-site use (e.g., toilet flushing, landscape irrigation, vehicle washing, ornamental fountains and ponds)
- m. Install waterless urinals.

### **4.11 HVAC Systems:**

4.11.1. Designs for new Army facilities and major retrofits of existing facilities shall utilize dedicated outdoor air systems (DOAS) to maintain acceptable indoor air quality, to discourage the formation and growth of mold and mildew, and to optimize overall energy efficiency of the HVAC system. DOAS decouples the building's latent and sensible cooling loads. DOAS systems shall be sized to deliver sufficient volumes of conditioned outdoor air to satisfy the building's ventilation, makeup and pressurization requirements and shall have sufficient dehumidification capacity to handle the entire latent cooling load under all occupancy and exterior climate conditions and shall be sized based on the 1% Humidity Ratio (HR) occurrence as listed in UFC 3-400-02 Design: Engineering Weather Data. Reheat energy, if required, shall be provided by recovered heat. Primary energy shall not be used for reheat. Heat recovery from the building's exhaust air stream shall be required.

4.11.2. Ducts and pipes conveying heated or cooled fluids shall be insulated and sealed according to ASHRAE Standard 90.1-2007 and according to the recommendations of ASHRAE Advanced Energy Design Guides.<sup>2</sup>

4.11.3. Special attention shall be applied in climate zones 1a, 2a and 3a to ensure that insulated pipe surface temperatures are never allowed to drop below dew point. The pipe insulation system shall be vapor tight.

---

<sup>2</sup> [www.ashrae.org/publications/page/1604](http://www.ashrae.org/publications/page/1604)

**4.12 Central Systems:**

4.12.1. Shall be used for installation-wide or for building clusters if:

- Density is higher than 40,000 (Kbtu/hr)/(sq. mile) AND
- Cooling density is higher than 68,700 (Kbtu/hr)/(sq. mile) [= 5,725 tons/(sq. mile)].

4.12.2. Shall be designed for combined heat and power (CHP) or tri-generation (heating, cooling and power generation).

4.12.3. Shall be designed with multiple cooling units where practical to enhance reliability (should permit loss of largest unit while maintaining minimum 65% design capacity).

4.12.4. Shall be designed with master plan review to provide for future expansion of central plant.

4.12.5. Should be designed with water cooled compressors rather than air cooled compressors and include other optimization strategies (see Tab 20).

**4.13 Steam Systems:**

4.13.1. Steam systems shall be converted to variable temperature variable flow medium (<270°F) or low temperature (<190°F) hot water as systems are recapitalized.

4.13.2. Steam systems with condensing boilers shall be designed with lower operating return hot water temperatures (<130°F) and use hot water reset.

4.13.3. Steam needs shall be evaluated and, only when absolutely necessary, be provided by local steam boilers.

4.13.4. Boilers shall be selected with thermal efficiency ≥90%.

4.13.5. Solar-augmented or solar standalone systems shall be employed where practical and economical to provide steam and high temperature water.

**4.14 Hot Water Systems:**

4.14.1. EISA 2007 requires that at least 30% of the hot water demand shall be met through the installation and use of solar hot water heaters unless it can be demonstrated that they are not cost effective.

4.14.2. If any level of solar hot water installation and use is found to be cost effective, it shall be installed up to that level.

4.14.3. Solar hot water shall be considered for Domestic Hot Water, space heating and re-heat, absorption chillers, and other systems.

**4.15 Building Automation:**

4.15.1. Requirements and guideline details are at Tab 21.

4.15.2. Should be applied to HVAC, lighting and other systems where practical using approved Army standards including:

- LonWorks® technology

## **Energy and Water Conservation Design Requirements for SRM Projects**

---

- LonWorks® network services
- ANSI/CEA 709.1 communications protocol
- ANSI/ASHRAE/IESNA Standard 90.1-2004
- BACnet® is an alternative that may be used where implementation planning has been completed and the strategy documented. There is no Army-approved UFGS for BACnet® so design of BACnet® systems should use the requirements found in the MILCON Transformation Model RFP and ERDC/CER TR-08-12 as described in ECB 2007-8.



**DEPARTMENT OF THE ARMY**  
**ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT**  
**600 ARMY PENTAGON**  
**WASHINGTON DC 20310-0600**

DAIM-ZA

FEB 06 2006

**MEMORANDUM FOR SEE DISTRIBUTION**

**SUBJECT: Sustainable Management of Waste in Military Construction, Renovation, and Demolition Activities**

**1. References:**


- a. Army Strategy for the Environment, October 2004.
  - b. Memorandum, Office of the Assistant Secretary of the Army (Installation and Environment), Sustainable Design and Development Policy Update – SPIRiT to LEED Transition, 5 January 2006.
2. All military construction, renovation, and demolition projects shall include contract performance requirements for a 50% minimum diversion of construction and demolition (C&D) waste by weight, from landfill disposal. Compliance with this policy will ensure installations attain the goals of Reference 1.a and the SDD SPIRiT / LEED ratings mandated in Reference 1.b. This requirement applies to all unawarded contracts and solicitations issued 30-days after the date of this memorandum. Contract specifications will include submission of a contractor's C&D Waste Management Plan, preferably prior to the start of site clearance.
3. This policy applies to all construction, renovation, and demolition projects carried out under the Military Construction (MILCON) Army, MILCON Army Reserves, MILCON National Guard Bureau, Army Family Housing Construction, Facilities Reduction, and installation Operation and Maintenance programs. Construction, renovation, and demolition projects funded by other than the above programs are not subject to this policy. However, those exempt may use installation C&D waste facilities and services only when compliant with this policy.
4. Project cost estimates and documentation shall include expenses for the removal and disposal of building materials through demolition, recovery, reuse, and recycling techniques that will not otherwise be offset by revenue, savings, or cost avoidance within the contract. These contracts shall continue to be awarded on either a low cost or best value basis. Detailed implementation guidance is provided in the enclosure.

DAIM-ZA

SUBJECT: Sustainable Management of Waste in Military Construction, Renovation, and Demolition Activities

5. My point-of-contact is William F. Eng, William.Eng@us.army.mil, 703-602-5827.

Encl

  
DAVID W. BARNO  
Lieutenant General, GS  
Assistant Chief of Staff  
for Installation Management

DISTRIBUTION:

Director, U.S. Army Installation Management Agency (SFIM-OP)  
Commander, U.S. Army Corps of Engineers (CECG)  
Chief, Army Reserve (DAAR)  
Chief, National Guard Bureau, Army National Guard Readiness Center (NGB-ARE)  
Commander, U.S. Army Materiel Command (AMCPE-I (Mr. R. Patel))

CF:

ASA(I&E)/RCI  
DASA(I&H), OASA (I&E)  
DASA(ESOH), OASA (I&E)  
DASA(P&P), OASA (I&E)  
DAIM-EDS  
DAIM-FDC (Ms. Jones)  
DAIM-FDF (Mr. Eng)  
DAIM-FDH  
Commander, US Army Environmental Center, (SFIM-AEC)  
Director, IMA Northeast Region (IMNE-PW)  
Director, IMA Northwest Region (IMNW-PW)  
Director, IMA Pacific Region (IMPA-PW)  
Director, IMA Southeast Region (IMSE-PW)  
Director, IMA Southwest Region (IMSW-PW)  
Chief, Army Reserve Directorate (IMAH-ARO)  
Commander, U.S. Army Corps of Engineers (CEMP-II (Mr. McLeod))  
Commander US Army Medical Command, (MCFA-E)  
Commander, US Army Military District of Washington, (ANEN-E)  
US Army Space and Missile Defense Command, (SMDC-Z)  
Commander, US Military Academy, (MAEN-EV)  
Director, Defense Commissary Agency, ATTN: Directorate of Facilities  
(Mr. C. Shepherd)  
Commander, Army and Air Force Exchange Service, ATTN: Command Engineer  
(Colonel C. Hart)



## ENCLOSURE

### DEPARTMENT OF THE ARMY OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT

#### REQUIREMENTS FOR SUSTAINABLE MANAGEMENT OF WASTE IN MILITARY CONSTRUCTION, RENOVATION, AND DEMOLITION ACTIVITIES

13 January 2006

##### 1. References.

a. Army Regulation (AR) 420-49, 28 Apr 1997, Utility Services, Chapter 3: Solid Waste Management (*Provides basic Army policy on solid waste management and recycling.*)

b. Army Strategy for the Environment, October 2004 (*Establishes the Army vision for meeting the mission today and in the future by making sustainability the foundation for the strategy. Lays out 6 long-term goals that form the building blocks of Army sustainability.*)

c. Deputy Assistant Secretary of the Army for Installations and Housing memorandum, Sustainable Design and Development Policy Update – SPiRiT to LEED Transition, 5 January 2006 (*Announces transition from SPiRiT rating to LEED system as of FY2008 MILCON program. Sets LEED Silver as the minimum sustainability rating for vertical New Construction (NC) projects. Prior year projects will continue to use SPiRiT and achieve a Gold level.*)

d. Assistant Chief of Staff for Installation Management memorandum, Military Construction, Army (MCA) Projects and One-for-One Demolition, 24 Apr 2003 (*Requires that an equal amount of facilities be disposed of or demolished for each square foot of new construction.*)

e. Assistant Secretary of the Army for Installations and Environment memorandum, Sustainable Design and Development, 18 March 2003 (*Sets SPiRiT Silver as the minimum sustainability rating for FY2006 MILCON projects under design and SPiRiT Gold for all other FY2006 and future year MILCON projects.*)

f. Assistant Chief of Staff for Installation Management memorandum, Sustainable Project Rating Tool (SPiRiT), 4 May 2001 (*Announces the Army-wide implementation of SPiRiT to self-evaluate the sustainability of facility construction and repair projects. Sets SPiRiT Bronze as the initial minimum sustainability rating for the Army.*)

g. Principal Deputy Assistant Secretary of the Army (Installations and Environment), DASA(I&E) memorandum, Deconstruction and Re-Use of Excess Army Buildings, 18

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

January 2001 *(Requests ACSIM to issue policy and guidance for installations to work with non-profits and other non-traditional contract entities to plan and carry out building deconstruction activities.)*

h. Assistant Chief of Staff for Installation Management memorandum, Sustainable Design and Development (SDD) Policy, 26 May 2000 *(Forwards Army (DASA(I&H)) policy that SDD be incorporated into installation facilities planning decisions and infrastructure projects.)*

i. Unified Facilities Guide Specification (UFGS), UFGS-01572, Construction and Demolition Waste Management, February 2003 *(Provides detailed requirements for developing and implementing a C&D waste management plan to promote waste and debris diversion through source reduction, salvage, reuse, and recycling.)*

j. UFGS-02220, Demolition, September 2003 *(Provides general requirements for demolition or removal work, and salvage and recycling of materials and components.)*

k. UFGS-01355, Environmental Protection, February 2002 *(Provides general requirements for developing a recycling and solid waste minimization plan and non-hazardous solid waste diversion reports as part of the project's Environmental Protection Plan.)*

l. Unified Facilities Criteria (UFC), UFC 1-900-01, Selection of Methods for the Reduction, Reuse, and Recycling of Demolition Wastes, 1 December 2002 *(Provides guidance for recovery and recycling of demolition waste, and assists in determining the most feasible methods to reduce the amount of construction and demolition (C&D) waste materials disposed in landfills.)*

m. RCRA in Focus, Construction, Demolition, and Renovation, US Environmental Protection Agency, Office of Solid Waste and Emergency Response Publication EPA-530-K-04-005, September 2004 *(Provides a basic understanding of the regulatory requirements for hazardous Construction & Demolition waste; includes information on managing typical hazardous C&D wastes and a hazardous waste requirements checklist for C&D projects; also tips on reducing C&D waste and a fairly extensive list of contacts for the C&D industry.)*

## 2. Purpose and Applicability.

a. The management of construction and demolition (C&D) debris from the removal of millions of square feet of excess Army buildings is a major challenge. Installations are incorporating Sustainable Design and Development (SDD) principles into facility planning decisions to improve energy usage, quality of life, and the environment. Increasing costs of waste disposal, growing acceptability, and greater value of used

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

building materials makes the recovery, reuse, and recycling of C&D debris an important and cost effective component of SDD. Sustainable approaches to waste management can simultaneously provide benefits to the community and the environment, while cost effectively supporting construction, renovation, and demolition activities.

b. The requirements described within this document are for the development and implementation of programs to effectively manage waste generated during all construction, renovation, and demolition activities on Army installations. They are intended to minimize the amount of waste that is disposed of through landfilling and promote more efficient use of new construction materials. The objective is to ensure that sustainable practices of C&D waste management are fully integrated into the planning, design, development, and execution of processes for implementing Sustainable Design and Development (SDD) at the installation. The handling and disposal of hazardous waste materials, as defined below, is outside the scope of these requirements.

c. These requirements apply to all construction, renovation, and demolition projects funded by Military Construction (MILCON) Army, MILCON Army Reserves, MILCON National Guard Bureau, Army Family Housing Construction, Facilities Reduction, and installation Operation and Maintenance. Construction, renovation, and demolition projects funded and carried out by other than the above authorities are not currently subject to this policy. However, those exempt, such as Residential Communities Initiative, Army & Air Force Exchange Service, and Defense Commissary Agency, if they wish to utilize an installation's C&D waste facilities and services, may do so only if they comply with the requirements of this policy.

3. Definitions. The following terms are used throughout these requirements.

a. *Construction* – Engineering projects that involve construction, renovation, and/or repair activities.

b. *Construction and demolition (C&D) waste (debris)* – materials generated as a result of construction, renovation, demolition and/or removal projects (e.g., metals, wood, asphalt, concrete, brick, masonry, rocks, rubble, soil, paper, cardboard, plastics, glass, carpet, padding, and related equipment and/or fixtures).

c. *Deconstruction* – planned and controlled building disassembly that preserves the integrity of the building materials and components so that they can be reused or recycled. When the type of construction does not lend itself to "disassembly," the term deconstruction means the breaking apart of building elements into their more basic constituents (steel, crushed concrete, etc.) and processing for potential reuse and or recycling. Also known as "sustainable infrastructure removal."

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

- d. *Disposal* – the landfilling or incineration of C&D waste.
- e. *Diversion* – the redirection of waste, ordinarily disposed of in a landfill or burned in an incinerator, to a recycling facility, to a composting yard, or to another destination for reclamation or reuse.
- f. *Demolition (or “wrecking”)* – an engineering project to reduce a building, structure, paved surface or utility infrastructure through manual and/or mechanized means, with or without the assistance of explosive materials to piles of mixed debris or rubble. Demolition is usually accomplished in a relatively short time frame with or without attempts to segregate the debris or rubble into its various components: wood, metal (steel/cooper), concrete/brick, etc. for recycling.
- g. *Hazardous waste* – any waste substance, which is ignitable, corrosive, reactive, or toxic, or if improperly handled, poses a substantial threat to human health and/or the environment. At the federal level, hazardous wastes are principally governed by Subtitle C, Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act (TSCA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), or the Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAPs) under the Clean Air Act. RCRA waste examples include lead and other heavy metals, spent solvents, paints, and thinners, while TSCA wastes would include such materials as PCBs and friable asbestos.
- h. *Recycling facility* – an activity that specializes in collecting, handling, processing, distributing, or reclaiming usable materials from a waste stream for reused by others or remanufacturing into new products.

#### 4. Sustainability Principles:

Army infrastructure projects must adhere to Sustainable Design and Development (SDD) principles. Installation waste and recycling program managers should become familiar with SDD principles and Army policies to ensure that C&D waste management requirements are properly considered and addressed during the planning, design, development, and execution of construction, renovation, and demolition projects. SDD integrates best building practices, technologies, energy conservation, and environmental considerations into installation planning and life-cycle management, including the recovery, recycling and reuse of C&D wastes. Information on SDD is available at the following websites:

ACSIM: <http://www.hqda.army.mil/acsimweb/fd/linksSDD.htm>

USACERL: <http://www.cecer.army.mil/sustdesign/>

SUBJECT: Requirements for Sustainable Management of Waste in Military Construction, Renovation, and Demolition Activities

5. Installation C&D Waste Management Overview.

a. Over 60% of the Army's non-hazardous solid waste stream for operations in the Continental United States consisted of C&D debris according to 2004 Army records (SWAR data). C&D debris can constitute up to 80% of the Army's non-hazardous solid waste volume at some installations with major construction and facility removal programs. As much as 15% of all materials used in a construction project will become waste and require disposal.

b. Disposing of C&D wastes in Army-owned landfills consumes capacity that is already in limited supply and dwindling fast. Disposing C&D wastes at a non-installation landfill can be costly in terms of transportation and tipping fees. Incinerating C&D wastes degrades local air quality and results in hazardous ash disposal problems.

c. Sustainable management of C&D waste demonstrates Federal leadership in responsible stewardship of natural resources and can help lower an installation's waste disposal costs, preserve limited landfill capacity, and reduce the need for virgin construction materials. This approach also offers opportunities for reducing the cost of removing facilities. Contractors can recover costs associated with salvage and recycling through their own use or sale of materials, which in a competitive environment will enable them to lower their price to the Government. Where the installation can utilize salvaged or recycled materials on-post, the cost of purchasing new products or virgin materials is avoided. Installations operating C&D landfills benefit from the reduced debris burden, extended landfill life, and associated cost savings.

d. Three significant cost factors in a C&D waste management program are labor, transportation and tipping/disposal fees. Installations that have their own on-site landfills often underestimate the true cost of owning and operating these facilities (capital, engineering, permitting, construction, operation, maintenance, future closure and long-term monitoring costs) by either providing disposal services at no cost or by failing to charge reimbursable customers and contractors enough to cover the true operating costs. Reimbursable customers and contractors shall be charged the full life-cycle cost of disposal at an installation landfill. If Installations are unable to easily calculate reasonable landfill life cycle costs, they shall apply the prevailing local commercial tipping fees as an alternative.

As an added incentive to reduce and divert (instead of demolish) C&D wastes from Army landfills through reduction, recovery, reuse, and recycling, Installations are encouraged to offer contract options or performance rebates for levels of diversion that are achieved beyond 50% by weight within each contract or project.

e. Significant waste reduction can only occur through a strategic and deliberate approach to the design, planning, and execution construction, renovation, and

**SUBJECT: Requirements for Sustainable Management of Waste in Military Construction, Renovation, and Demolition Activities**

demolition activities. Early planning to incorporate more efficient facility design and construction processes can reduce the total amount of waste generated, handled and ultimately disposed of in landfills. Best Management Practices during construction and demolition will reduce the amount of waste material generated. Table 1 describes typical C&D debris generated during the various phases of a typical construction project. Successful waste management programs must be comprehensive and proactively include the full participation of the installation engineering, contracting, and environmental disciplines as well as all contractors, subcontractors, vendors, and suppliers involved in the project. Installation sustainable management of C&D activities will include, but are not limited to, facility design and construction efficiency, salvage (recovery) for reuse and resale, recycling, disposal, and packaging waste minimization.

**Table 1. Types of C&D Debris Generated in Various Phases of a Construction Project**

Phase	Debris
Construction	Mixed rubble, wood, roofing, wall board, insulation, carpet, pipe, plastic, paper, bricks, lumber, concrete block, metals
Demolition	Mixed rubble, concrete, steel beams, bricks, wood, lumber, wallboard, insulation, carpet, pipes, wire, equipment, fixtures
Excavation	Earth, sand, stones, wood
Roadwork	Asphalt, concrete, earth
Site Clearance	Trees, brush, earth, top soil, concrete, mixed rubble, sand, steel, paper, plastic, garbage, rubbish

## **6. C&D Waste Management Program Requirements**

### **a. Contract Requirements.**

1) All future military construction, renovation, and demolition activities shall include C&D waste management performance requirements in solicitation documents. Contract bid specifications shall either reference the following Unified Facilities Guide Specifications (UFGS), or language as appropriate to the program's solicitation document format by editing these UFGS provisions to the specific project. Explicit designation as UFGS is not required:

- UFGS-01355, "*Environmental Protection*"
- UFGS-01572, "*Construction and Demolition Waste Management*" and
- UFGS-02220, "*Demolition*"

NOTE: These UFGS's may be downloaded from the Construction Criteria Base web site: <http://www.ccb.org/docs/ufgshome/UFGSToc.htm>



SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

(a) UFGS-01355 requires contractors to develop and provide a recycling and solid waste minimization plan and non-hazardous solid waste diversion reports as part of the project's Environmental Protection Plan.

(b) UFGS-01572 requires contractors to submit a C&D Waste Management Plan for government approval within 15 days after contract award and prior to initiating any site clearance activities. The purpose of the plan is to minimize the generation of C&D waste and to ensure that the maximum amount of C&D waste (including materials generated during clearing of the site, demolition of existing structures, and new construction activities) is salvaged for future resale, reuse, or recycling into new products. Installations with on-site C&D disposal facilities may make these facilities available to the demolition/removal contractor at the prevailing tipping fee for the area, or the actual all-inclusive, on-post cost per ton, if known.

(c) General demolition specifications are contained in UFGS-02220 and include the preparation of a demolition plan and the filing of notices to appropriate authorities concerning hazardous materials, explosives, safety and traffic control, etc.

2) These UFGS documents provide general contract performance requirements and depend on the installation's planner or designer to specify further project and site specific requirements. These documents, when completed, should clearly define ownership of property between the government and the contractor. Ensure the solid waste minimization and non-hazardous solid waste provisions of the Environmental Protection Plan, the C&D Waste Management Plan, and the Demolition specifications are coordinated to prevent conflicts.

3) The Corps of Engineers, Engineering and Support Center in Huntsville, AL publishes a number of Public Works Technical Bulletins in the PWTB 200-1 and 420-49 series, focusing on construction and demolition debris topics. Internet address to access PWTB's: <http://www.hnd.usace.army.mil/techinfo/CPW/pwtb.htm>. For example: PWTB 200-1-23, Guidance for the Reduction of Demolition Debris through Reuse and Recycling, and PWTB 420-49-30, Alternatives to Demolition for Facility Reduction.

b. Contract Administration/Oversight

1) The installation staff offices responsible for solid waste and/or recycling shall review the required C&D waste management plan for installation-managed projects and participate in the review and approval of C&D waste solicitation documents and waste management plans for projects being performed on the installation by others, such as the Corps of Engineers.

2) For each construction, renovation, or demolition project, installations shall document and monitor implementation of the approved plan. Actual diversion shall be

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

monitored throughout the construction or demolition project and conformance with the approved Waste Management Plan and contract performance requirements shall be verified and recorded.

3) Installations will ensure that C&D activities and quantities are captured and reported annually in the Solid Waste Annual Reporting System, Web-version (SWARWeb). SWARWeb is accessible via the Army Environmental Reporting Online (AERO) portal at <https://aero.agpea.army.mil>. See Table 2 on page 14 for specific C&D diversion data requirements for SWARWeb. Huntsville Corps of Engineers, as program manager for FRP, will issue through HQs IMA detailed guidance for reporting FRP diversion data via SWARWeb. C&D diversion data for other programs shall be reported in a similar manner.

4) Managers of new construction, major renovation, facilities reduction or other demolition projects will report their C&D activities to the designated installation POC. Organizations that disposed of their C&D wastes off the installation will also comply with this reporting requirement.

c. Methods for Managing Demolition Wastes

1) When non-historical elements of the built environment are old, obsolete, and excess to current and forecasted needs, they are removed to either make way for a replacement facility or to restore the open space for some future use. All removal activities are comprised of a combination of traditional demolition and material recovery, reuse, and recycling techniques.

(a) Traditional demolition is most often accomplished by contracting practices using standard specifications. This is a relatively quick, uncomplicated process, but results in major quantities of waste and debris that must be disposed of in either on-site or off-site landfills.

(b) Appreciable waste stream diversion during demolition can be achieved at no additional cost through proper planning and execution. Historical data shows that the majority of debris materials can be diverted from wood-framed, steel framed, concrete framed, concrete masonry, and pre-engineered metal buildings. Most quantities of concrete, masonry, and metals from any building type can be diverted from landfilling, excluding contaminated materials. The majority of structural material from wood framed buildings can also be diverted through salvage for reuse or recycling, again excluding contaminated materials. Further information and guidance to accomplish appropriate waste stream diversion rates are found in a Best Practices Toolbox located on the Engineering Knowledge Online (EKO) website. The website link will be provided at a later date and updated on a regular basis.

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

(c) Material recovery, reuse, and recycling techniques are relatively new concepts when compared to demolition. But these techniques are quickly becoming a more desirable way to remove excess buildings, especially when time constraints are not a major consideration. These methods can be performed under a contract with a firm often specializing in this type of work. Material recovery, reuse, and recycling also lends itself to the use of innovative approaches such as the use of an open auction or sealed bidding process that sells the excess buildings. This method of removal is frequently followed by the use of a supplemental demolition contract to remove and dispose of the remaining non-recycled components. These auctions and sales generate interest from private individuals, small business entrepreneurs, and specialty firms looking to harvest quantities of usable building materials for their own use.

(d) Another innovative approach that can be used for diverting high levels of material from the landfill includes active partnering with non-profit organizations that provide low-cost/no-cost deconstruction and salvage services to further their charitable purposes. Besides generating revenue from the value of the materials reclaimed and reused, there are real dollar savings from the equivalent amount of waste that does not have to be hauled away and landfilled.

(e) The use of on-site mobile concrete and masonry crushing operations can not only reduce waste transportation and disposal requirements but also provide a significant cost avoidance of future requirements by not purchasing new aggregate for construction and/or installation training requirements if required in economical quantities and are at appropriate locations.

2) Unified Facilities Criteria (UFC 1-900-01), "*Selection of Methods for the Reduction, Reuse, and Recycling of Demolition Waste*" provides guidance for recovering and recycling building demolition wastes, by assisting in the process to determine the most feasible methods to reduce the amount of C&D waste that finally is disposed of in a landfill. This UFC is available at the following UFC website:  
[http://65.204.17.188/report/doc\\_ufc.html](http://65.204.17.188/report/doc_ufc.html)

Guided by the UFC, installation planning personnel shall develop a decision matrix, specific to each project situation, which explores as many alternatives as required, using conventional demolition methods as the benchmark for comparison purposes. Many factors and constraints are considered in the matrix, such as type of construction, time constraints from a follow-on MCA project, contracting mechanisms, availability or lack of recycling markets, as well as costs.

3) Precautions must be taken if hazardous materials (e.g., asbestos, lead based paint, or polyaromatic hydrocarbons (PAHs from parquet floor glues), PCBs, mercury-containing material, ozone-depleting substances, Underground and Aboveground Storage Tanks, petroleum contaminated soil) are suspected to be present. Prior to

**SUBJECT: Requirements for Sustainable Management of Waste in Military Construction, Renovation, and Demolition Activities**

undertaking any demolition activities, consult experts in the containment, removal and disposal of these kinds of materials. In addition, consider inclusion of the requirements for testing of materials in the new construction contract specifications, to assure that they will not be hazardous for recycling or reuse purposes.

4) An Army-owned on-site landfill may be used by a construction or demolition contractor for disposal of materials generated under a contract, contingent on the lack of alternative disposal sites within a reasonable (say, 50-100 miles) driving distance, and the payment of a fee, which is equivalent to the tipping fee prevailing in the area or the actual full life-cycle cost of disposal on-site, whichever is less. The full cost for using the installation landfill must be included in the comparison for all alternatives in order to determine which is most cost effective. The installation, at its discretion, may offer to charge the contractor lower disposal fees for attaining higher diversion rates, above the 50 percent minimum.

**7. Integrated Solid Waste Management Plan:**

a. Installations shall update their Integrated Solid Waste Management Plan (ISWMP) to incorporate C&D waste management principles and requirements. Updates should be completed within 180 days for ISWMP's that have not been updated within the past 5 years and within 1 year for all others. ISWMPs will be checked by higher headquarters when making periodic on-site compliance reviews.

b. Guidance on ISWMP preparation is available from the U.S. Army Center for Health Promotion and Preventative Medicine and the U.S. Army Engineering and Support Center, Huntsville. USACHPPM guide, TG-197, for preparing ISWMPs is at: <http://chppm-www.apgea.army.mil/documents/TG/TECHGUID/TG197.pdf>. The Corps of Engineers TECHINFO website maintained by the U.S. Army Engineering & Support Center, Huntsville, Alabama is also a source of solid waste and recycling technical guidance. In addition to published Public Works Technical Bulletins, the TECHINFO site has an electronic template for tailoring an ISWMP for a specific installation: <http://www.hnd.usace.army.mil/techinfo/CPW/pwtb.htm>.

**8. Other Considerations**

a. MCA project cost estimates should include the cost and schedule impacts on the DD 1391 for removal of buildings, structures and underground utilities within the "footprint" of the new facility and for non-footprint 1 for 1 structures, whether by traditional demolition methods or through material recovery, reuse, and recycle of building materials. Consideration must be given to any impacts on initial cost or schedule that would not ordinarily occur with traditional demolition scenario, but would result in an overall net savings or benefit to the Government, even if outside the MCA contract. Addressing these issues early in the project development cycle should enable

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

the installation and supporting USACE District to accommodate cost and schedule impacts without adverse effect on the project's execution. Any initial cost to be supported by the construction contract price must be included in the DD 1391.

b. As part of the garrison's oversight responsibilities for all facilities projects on the installation, including those funded by private parties, such as RCI, and separately-funded tenant organizations, the installation planning, engineering, solid waste/recycling and environmental staffs must ensure that C&D waste management issues are addressed. For example, installations should work to have the RCI Community Development Master Plan include requirements equivalent to those in this policy, whenever possible.

c. DoD 4160.21-M, Defense Material Disposition Manual. Screening for reutilization of excess or surplus property should be completed prior to reclamation or disposal through C&D activities.

d. Prior to waste disposal on an installation owned and operated landfill, C&D debris should be reduced in volume where economically possible in order to help preserve landfill capacity. Contracting for the service or partnering with another installation may be more economical than purchasing and operating the equipment outright.

e. Schedule Considerations

1) Diversion activities can usually be performed with no adverse schedule impact if they are addressed during project development, i.e. during the planning, design, and contract document development. In this way, the Government is able to incorporate C&D waste diversion activities into the overall project completion objectives with minimal impact on scheduling and unexpected costs. Bidders and offerors can then incorporate salvage and recycling activities when developing their demolition and construction schedules.

2) In isolated cases, the project delivery schedule or construction schedule may constrain or even rule out salvage, recycling, and diversion activities on the demolition or construction site. Externally imposed project completion requirements such as a late addition to the MILCON program, or a previously established Beneficial Occupancy Date for a new Unit of Action may be such examples. Timely completion of the mission-critical project shall take precedence over meeting the minimum diversion criteria of this policy where missing the Beneficial Occupancy Date is directly attributable to debris diversion activities. In these cases, it is incumbent on the contracting agency to attain the highest diversion rate the project schedule will allow.

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

3) Wood frame buildings have been removed from the footprint volumetrically and in panels or sections, and have even been "felled" (controlled collapse) to reduce the time necessary to clear the site. On-site materials segregation, off-site materials segregation, scrap utilization and waste reduction programs, packing and packaging reduction, and disposing of debris at C&D recycling facilities are options that can achieve diversion requirements without prolonging demolition activities. Apply the C&D Waste Management Plan to ensure that contractor has evaluated all diversion options when developing the Plan, and is making a good-faith effort to achieve the highest diversion rate practical within the project schedule.

f. Budget Considerations

1) Army experience shows that significant debris diversion can be accomplished within the established budgets. However, low cost cannot be guaranteed in all cases. Cost variables include the types and scope of facilities being removed, hauling costs and tipping fees, labor rates, salvaged materials' condition and markets, and other local factors.

2) There may be cases where the effort and cost to salvage materials for reuse or recycling may exceed the savings associated with diversion. Preserving the ability to award a contract without compromising project scope shall take precedence over meeting this Policy Memorandum's diversion criteria where the cost of achieving the minimum diversion rate is significantly greater than the cost of conventional demolition and landfilling, and the risk of exceeding the available contract amount can be attributed to the difference in cost between conventional demolition, and achieving the minimum diversion rate. Note that the cost of diversion includes the initial cost, offset by salvaged and recycled materials' value, cost savings from reduced hauling and tipping fees, cost avoidance by using recycled materials in lieu of purchasing new materials, and life cycle landfill savings if the installation has an on-post C&D landfill. In these cases, it is incumbent on the contracting agency to ensure the highest diversion rate the project budget will allow. Apply the C&D Waste Management Plan to ensure that the contractor has evaluated all diversion options when developing the Plan, and is making a good-faith effort to achieve the highest diversion rate practical within the project budget.

g. The means and the methods to combine techniques of traditional demolition and disposal versus material reduction, reuse, and recycling rests solely with the garrison. Decision-makers should, however, carefully consider all the pertinent factors that would affect successful project completion and attainment of Army waste policy diversion goals.

h. Networking with the other Services, local communities, and non-profit / charitable groups may help identify resources that may wish to purchase or otherwise obtain installation C&D wastes. Local and/or regional advertising may help determine the



SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

marketability of excess materials. Any contracts or agreements governing the sale/transfer of these materials must be legally reviewed. Depending on the approach chosen, such parties may be able to purchase buildings through auction or bid, contract for deconstruction services, or subcontract with a conventional demolition contractor to salvage materials. State and county departments of natural resources (or similar agencies) should be consulted to identify any directories, exchanges or referral services for recycling and salvage firms they may maintain. UFC 1-900-1 provides a compendium of resources for building materials salvage, recycling, reuse, and deconstruction.

i. There are many organizations throughout the United States that may provide resources needed for cost effective deconstruction, salvage, recycling, and reuse or resale of building materials. The following are examples of the types of resources available to Army personnel. This list is not intended to be comprehensive. Other organizations and resources are available as well.

1) The US Department of Agriculture Forest Products Laboratory, in partnership with the University of Florida Center for Construction and the Environment, has published a Directory of Wood Framed Building Deconstruction and Reused Building Materials Companies ([http://www.fpl.fs.fed.us/documnts/fplqtr/fpl\\_qtr150.pdf](http://www.fpl.fs.fed.us/documnts/fplqtr/fpl_qtr150.pdf))

2) USEPA maintains a recycling commodities exchange through their Jobs Through Recycling programs. (<http://www.epa.gov/epaoswer/non-hw/recycle/itr/comm/exchstat.htm> and <http://www.epa.gov/itr/itrnet/brokers.htm>)

3) State and local Environmental Protection Agencies, or Departments of Natural Resources, Solid Waste Management or Pollution Prevention divisions or directorates frequently maintain recycled materials directories, materials exchanges, advisory services, and other forms of supports that installations can consult to support C&D materials' diversion. Some selected examples of these services include:

- California Integrated Waste Management Board, California Materials Exchange Network (<http://www.ciwmb.ca.gov/CalMAX/>)
- State of Georgia Pollution Prevention Assistance Division (<http://www.p2ad.org/>)
- King County WA Construction Recycling Directory (<http://www.metrokc.gov/dnrp/swd/construction-recycling/documents/cdlguide.pdf>)
- State of North Carolina Recycle Products Directory (<http://www.p2pays.org/DMRM/start.aspx>)

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

- Recycle Texas Online  
(<http://www.tnrcc.state.tx.us/exec/sbea/rtol/index.html>)
- Many Habitat for Humanity Affiliates operate used building materials stores (typically called ReStores) and deconstruction services.  
(<http://www.habitat.org/>). See <http://www.habitat.org/env/restores.aspx> for the ReStore directory.
- Non-profit organizations can be useful in identifying services and outlets for salvaged and recycled materials. These include, but are not limited to:
- Pollution Prevention Resource Exchange  
(<http://www.p2rx.org/aboutUs/aboutP2Rx.cfm>)
- WasteCap, located in several states (example:  
<http://www.wastecapwi.org/>)
- Reuse Development Organization REDO  
(<http://www.redo.org/FindReuse.html>)
- GreenGoat (<http://greengoat.org/whatwedo.html>)

Table 2 - C&D Diversion Data Elements

CONSTRUCTION / DEMOLITION SWARweb PICKLIST		
MAJOR CATEGORY	SUB-CATEGORY	DEFINITION
Wood	Structural	TBD
	Finished	TBD
	Treated	TBD
	Other (C/D Wood)	TBD
Metal	Steel	TBD
	Copper	TBD
	Aluminum	TBD
	Mixed Metal	TBD
	Other (C/D Metal)	TBD
Masonry/Asphalt/Concrete/Stone	Asphalt	TBD
	Brick	TBD
	Concrete	TBD

DAIM-FD

13 January 2006

SUBJECT: Requirements for Sustainable Management of Waste in Military  
Construction, Renovation, and Demolition Activities

	Concrete Block Unit	TBD
	Stone	TBD
	Other (C/D Masonry/Asphalt)	TBD
<b>Land Clearing Debris</b>		
	Top Soil	TBD
	Sub Soil	TBD
	Petroleum-Contaminated Soil	TBD
	Non-Hazardous Lead-Contaminated Soil	TBD
	Vegetation/Timber (tree trunks & limbs)	TBD
	Crushed Stone/Base	TBD
	Other (C/D Land Clearing)	TBD
<b>Other</b>		
	Siding	TBD
	Composition Roof	TBD
	Insulation	TBD
	Doors/Windows/Stairs/Cabinets	TBD
	Ceiling Tile	TBD
	Gypsum/Plaster	TBD
	Plastic	TBD
	Glass	TBD
	Paper	TBD
	Other (C/D Other)	TBD
<b>Additional Information</b>		
Project Number		
Building Number(s)		
Reuse (Installation)		
Reuse (Off-Site)		
Recycle (Installation)		
Recycle (Off-Site)		
Bury (Installation)		
Bury (Off-Site)		
Dispose (Installation)		
Dispose (Off-Site)		
Other		



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, MOBILE  
CORPS OF ENGINEERS  
P.O. BOX 2288  
MOBILE, ALABAMA 36628-0001**

August 27, 2012

Regulatory Division  
Inland Branch  
SAM-2009-1585-JSC

Mr. Jeff Jones  
ITT Systems Corporation  
Maxwell Base Operating Services  
400 Cannon Street  
Maxwell AFB, Alabama 36112

Dear Mr. Jones:

Per your request received July 26, 2012, this office completed a desk review of your proposed project involving the expansion of, and upgraded facilities for, the Maxwell AFB Family Campground. The project is located within the boundaries of Maxwell AFB, Montgomery County, Alabama. Specifically, the proposed project is located within Section 16, Township 16N, Range 17E, and near latitude 32.369336N and longitude 86.370520W.

This inspection discovered that there may be waters of the United States within the boundaries of the proposed project. Any impacts to federal resource areas are subject to our Federal permitting authority pursuant to Section 404 of the Clean Water Act of 1977 (33 USC 1344). Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including streams and wetlands, prior to conducting the work.

For regulatory purposes, the Corps of Engineers defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The exact extent of wetlands and other waters of the U.S. within the project area cannot be determined without an extensive field investigation which is not warranted at this time. We recommend that you engage an environmental consultant to identify, locate and delineate federal resource areas that may be impacted in the project area. Once specific fill locations for the property have been determined and a project plan developed, a more detailed site inspection may be required to determine the actual impacts to waters of the U.S.

Please be advised that land clearing operations involving vegetation removal with mechanized equipment such as front-end loaders, backhoes, or bulldozers with shear blades, rakes, or discs; windrowing vegetation; land leveling; or other soil disturbance in areas subject to Corps jurisdiction are considered placement of dredged material under our jurisdiction.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations that may affect any proposed work.

We appreciate your cooperation with the Corps' Regulatory Program. Please refer to file number SAM-2012-00956-JSC in future correspondence or if you have any questions concerning this determination.

Please contact me at (334) 953-2172 should you have any questions. For additional information about our Regulatory Program, visit our web site at [www.sam.usace.army.mil/RD/reg](http://www.sam.usace.army.mil/RD/reg), and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Sincerely,

  
James S. Cherry, II  
Project Manager



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY

U.S. ARMY ENGINEER DISTRICT, MOBILE  
CORPS OF ENGINEERS  
BIRMINGHAM FIELD OFFICE  
218 SUMMIT PARKWAY, SUITE 222  
HOMEWOOD, ALABAMA 35209

Date: 7-30-12

Dear Applicant:

We are in receipt of your request/application to pre-app

Your request/application has been assigned project file number

SAM-2012 - 00956-JSC and is also identified as Family Campground  
Expansion at Maxwell Air Force Base

Your project has been assigned to Project Manager James Cherry

You may contact him/her either by telephone at (205) 290-9096, by email at

James.S.Cherry @usace.army.mil or by mail at

218 Summit Parkway Suite 222, Homewood, Alabama 35209.

Please help us help you, and take a moment to visit our website at

<http://www.sam.usace.army.mil/RD/reg/> and complete our customer satisfaction Survey.

Sincerely,

*Cg House-Pearson*

Cindy J. House-Pearson  
Field Office Manager  
Regulatory Division





STATE OF ALABAMA  
**DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES**  
***WILDLIFE AND FRESHWATER FISHERIES DIVISION***

64 North Union Street, Ste. 567  
P. O. Box 301456  
Montgomery, AL 36130-1456  
Phone: (334) 242-3465 Fax: (334) 242-3032  
[www.outdooralabama.com](http://www.outdooralabama.com)



**ROBERT BENTLEY**  
GOVERNOR

**N. GUNTER GUY, JR.**  
COMMISSIONER

**CURTIS JONES**  
DEPUTY COMMISSIONER

*The mission of the Wildlife and Freshwater Fisheries Division is to manage, protect, conserve, and enhance the wildlife and aquatic resources of Alabama for the sustainable benefit of the people of Alabama.*

**FRED R. HARDERS**  
ACTING DIRECTOR

August 9, 2012

Mr. Jeff Jones  
ITT Systems Corporation  
Maxwell Base Operating Services  
400 Cannon Street  
Maxwell AFB, AL 36112

Re: Proposed Family Campground Expansion  
Maxwell Air Force Base, Alabama

Dear Mr. Jones

The Division of Wildlife and Freshwater Fisheries, Department of Conservation and Natural Resources has no objection to the Proposed Family Campground Expansion at Maxwell Air Force Base, Montgomery, Alabama. State water quality standards (particularly those related to erosion control, water turbidity, and dissolved oxygen) should be strictly adhered to. We encourage the utilization of BMPs in order to minimize erosion during construction. We encourage the proper installation and implementation of best management practices as outlined in the Alabama Handbook for Erosion Control in order to minimize erosion and migration of sediments into wetland and stream areas.

Sincerely,

Matthew D. Marshall  
Environmental Coordinator

**From:** JONES, JEFFREY L CTR USAF AETC 42 CES/CEV  
**To:** OSGOOD, BETH A CTR USAF AETC 42 CES/CEV  
**Subject:** FW: AHC 12-1300, Maxwell Campground Expansion  
**Date:** Friday, August 10, 2012 7:58:17 AM  
**Attachments:** [12-1300.pdf](#)  
**Importance:** High

---

For the records

-----Original Message-----

From: Rhinehart, Greg [<mailto:Greg.Rhinehart@preserveala.org>]  
Sent: Thursday, August 09, 2012 2:43 PM  
To: JONES, JEFFREY L CTR USAF AETC 42 CES/CEV  
Subject: AHC 12-1300, Maxwell Campground Expansion  
Importance: High

Mr. Jones,

I have attached a copy of our response for this project. If you have any questions, please contact me.

Greg Rhinehart

Alabama Historical Commission



**STATE OF ALABAMA**  
ALABAMA HISTORICAL COMMISSION  
468 SOUTH PERRY STREET  
MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE  
EXECUTIVE DIRECTOR

TEL: 334-242-3184  
FAX: 334-240-3477

August 8, 2012

Jeff Jones  
ITT Exelis  
400 Cannon Street  
Maxwell AFB, Alabama 36112

Re: AHC 12-1300  
Campground Expansion & Improvements  
Maxwell Air Force Base  
Montgomery County, Alabama

Dear Mr. Jones:

Upon review of the information forwarded by your office, we have determined that the project activities will have no adverse effect on cultural resources listed on or eligible for the National Register of Historic Places (NRHP). Therefore, we concur with the proposed project. However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately.

We appreciate your efforts on this project. Should you have any questions, please contact Greg Rhinehart at (334) 230-2662. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown  
Deputy State Historic Preservation Officer

EAB/GCR/gcr

OFFICE OF THE GOVERNOR

**ROBERT BENTLEY**  
GOVERNOR



**STATE OF ALABAMA**

ALABAMA DEPARTMENT OF ECONOMIC  
AND COMMUNITY AFFAIRS

**JIM BYARD, JR.**  
DIRECTOR

July 23, 2012

Jeff Jones, CSP, CHMM, CHST  
ESH Manager  
ITT Exelis, Mission Systems  
Maxwell Base Operating Services  
400 Cannon Street  
Maxwell AFB, AL 36112

Dear Mr. Jones,

We have reviewed the documents you sent regarding the draft Environmental Assessment (EA) for the Proposed Family Campground Expansion, Maxwell AFB, Alabama. We do not have any questions or comments and we appreciate the opportunity to review this project.

If we may be of any assistance, please let us know.

Sincerely,

A handwritten signature in blue ink that reads "J. Brian Atkins".

J. Brian Atkins, P.E.  
Division Director  
Alabama Office of Water Resources



ITT Systems Corporation 334-953-1760  
Maxwell Base Operating 334-953-3761 Fax  
Services  
400 Cannon Street  
Maxwell AFB, AL 36112

Log TA/ML  
JUL 20 2012  
ITT EXELIS

July 10, 2012

Mr. Bill Pearson, Field Supervisor  
U.S. Fish and Wildlife Service  
Daphne Ecological Services Field Office  
1208-B Main St  
Daphne, AL 36526



U.S. Fish and Wildlife Service  
1208 B - Daphne, Alabama 36526  
Phone: 251-441-5181 Fax: 251-441-6222

No federally listed species/critical habitat are known to occur in the project area. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW. SITE MAY CONTAIN WETLANDS. Contact U.S. Army Corps of Engineers for a jurisdictional wetlands determination. We recommend the use of best management practices specific to your project (See <http://www.fws.gov/daphne/section7/bmp.html>).

RE: Proposed Family Campground Expansion  
Maxwell Air Force Base, Alabama

William J. Pearson, Field Supervisor

Date

#4

Dear Mr. Pearson,

2012-TA-0575

The United States Air Force (USAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). The Air Education and Training Command (AETC) and the 42d Air Base Wing (ABW) propose to improve and expand the facilities at the existing Family Campground (FamCamp) at Maxwell Air Force Base (AFB). Improved facilities are needed to support the increasing demand for camping spaces and associated amenities. The Proposed Action would improve opportunities for rest and recuperation, as well as temporary housing, for Airmen and their families at the existing FamCamp.

Under the Proposed Action, the improvements would occur within the previously disturbed areas of the FamCamp area, which is located near the southwest portion of Maxwell AFB (see Figure 1). The Proposed Action includes the following tasks:

Task 1 includes replacing an existing temporary modular bath house with a permanent bath house and laundry room. The proposed action would include demolishing the temporary structure; removing the existing septic tank; and constructing a permanent facility. The new facility would tie in to the existing sanitary sewer line.

Task 2 includes a major renovation of the existing concrete bath house located near the existing administrative building. Renovations would include reconfiguring the stalls, upgrading the plumbing, fixtures, lighting, flooring and electrical system.

Task 3 includes constructing a new boat dock, fishing pier and aeration fountains to the existing ponds. Constructing a fishing pier and boat dock would provide visitors an easy and safe access to deeper water.

Task 4 includes expanding existing administrative and recreation facilities. The new facility would combine administrative offices with a community meeting room or indoor recreational space. The specific location within the FamCamp has not been identified.

Task 5 includes reconfiguring seven existing trailer pads near the southeastern corner of the southern lake, resulting in 13 trailer pads within the same footprint. A new gravel access road would also be constructed to improve vehicle access along the western side of the new pads.

Task 6 includes constructing twelve trailer pads along the southwestern portion of the property. This would include widening an existing access road, constructing a new gravel access road and improving an existing gravel drive. Improvements in this area would also include a new bathhouse and laundry facility; a picnic pavilion; a dumpster pad and two playground areas.

Task 7 includes creating new camping spaces on the east side of March Road, just north of the existing ball fields. The new camping spaces would provide 12 full utility hook-ups and a new gravel access road east of March Road.

Some of the Proposed Actions would occur within the 100-year floodplain. The EA will evaluate the potential effects on the human and natural environment that may result from the implementation of the Proposed Action. The USAF will also consider the potential effects of the No-Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs* and Air Force Instruction 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning* (IICEP), we are requesting any comments or concerns you may have with the proposed project. In order to properly evaluate cumulative impacts, we are also requesting that you identify any major projects (recently conducted, presently underway, or planned for the near future) that are in the vicinity of the Proposed Action.

Please send your comments, concerns and identified projects to Mr. Jeff Jones within 30 days of receipt of this letter.

We appreciate your assistance in the matter and look forward to hearing from you. If you have any questions about this request, please contact Mr. Jeff Jones by phone at (334) 953-5757 or email at [Jeffery.Jones@maxwell.af.mil](mailto:Jeffery.Jones@maxwell.af.mil).

Sincerely,



Jeff Jones, CSP, CHMM, CHST  
ESH Manager  
ITT Exelis, Mission Systems  
42 CES/CEV

Enclosures

- Figure 1 – Location Map of the Proposed Action
- Figure 2 – Location of Proposed Action Tasks



**LANCE R. LEFLEUR**  
DIRECTOR



**Alabama Department of Environmental Management**  
**adem.alabama.gov**

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463  
Montgomery, Alabama 36130-1463  
(334) 271-7700 ■ FAX (334) 271-7950

**ROBERT J. BENTLEY**  
GOVERNOR

July 27, 2012

JEFF JONES  
ITT EXELIS MISSION SYSTEMS  
42 CES/CEV  
400 CANNON STREET  
MAXWELL AFB, AL 36112

RE: Proposed Family Campground Expansion  
Montgomery County (101)

Dear Mr. Jones:

The Department's Water Division (WD) has reviewed the information you sent us regarding the above-referenced project. You had requested that we review this information and provide comments.

Attached, please find a copy of WD's proposed project/activity review information.

I hope this information is useful. If you have any questions or need additional information, please contact me by email at [gfm@adem.state.al.us](mailto:gfm@adem.state.al.us) or by phone at (334) 394-4317.

Sincerely,

A handwritten signature in black ink, appearing to read "Gerald Martin", is written over a horizontal line.

Gerald Martin  
Technical Staff  
Construction Permits Section  
Stormwater Management Branch  
Water Division

GFM File:PREV

Enclosure: Proposed Project/Activity Review Information  
Copy of Review Request Letter  
Construction Stormwater NOI

**Birmingham Branch**  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6168  
(205) 941-1603 (FAX)

**Decatur Branch**  
2715 Sandlin Road, S. W.  
Decatur, AL 35603-1333  
(256) 353-1713  
(256) 340-9359 (FAX)



**Mobile Branch**  
2204 Perimeter Road  
Mobile, AL 36615-1131  
(251) 450-3400  
(251) 479-2593 (FAX)

**Mobile-Coastal**  
4171 Commanders Drive  
Mobile, AL 36615-1421  
(251) 432-6533  
(251) 432-6598 (FAX)

# ADEM CONSTRUCTION STORMWATER

## PROPOSED PROJECT/ACTIVITY REVIEW INFORMATION

The Department has received and evaluated the information you sent us regarding the above-referenced project. You had requested that we review this information and provide comments.

Please note that State law and ADEM regulations require that appropriate, effective Best Management Practices (BMPs) for the control of pollutants in stormwater run-off be fully implemented and maintained as needed for all construction and land disturbance activities regardless of permit status or size of the disturbance to prevent/minimize discharges of sediment and other pollutants to waters of the State of Alabama.

A "water of the state" is broadly defined as [§ 22-22-1(b)(2), Code of Alabama 1975, as amended] "All waters of any river, stream, watercourse, pond, lake, coastal, ground, or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Discharges of pollutants resulting from failure to implement and maintain effective BMPs are considered unpermitted discharges to state waters.

Please be advised that pursuant to EPA rules and ADEM Construction General Permit (CGP) ALR100000, the operator or owner is required to apply for and maintain valid National Pollutant Discharge Elimination System (NPDES) coverage for stormwater discharges prior to beginning construction or regulated land disturbance that will equal or exceed one (1) acre in size. The regulations also require NPDES registration for disturbance activities less than one (1) acre that are part of, adjacent to, or associated with a larger common plan of development or sale, that may eventually equal or exceed one (1) acre, or if less than one (1) acre in size if stormwater discharges have reasonable potential to be a significant contributor of pollutants to a water of the State or have reasonable potential to cause or contribute to a violation of applicable Alabama water quality standards as determined by the Department. In addition, a Construction Best Management Practices Plan (CBMPP) is required to be submitted for priority construction sites as defined in the CGP. The regulated construction disturbance also includes, but is not limited to, associated areas utilized for support activities such as vehicle parking, equipment or supply storage areas, material stockpiles, temporary office areas, and access roads, and pre-construction activities performed in advance or in support of construction such as logging, clearing, and dewatering. Please be advised that an operator or owner must retain NPDES permit coverage until all disturbance activity, including phased construction, is complete.

Additional ADEM air, land, and/or water permits for discharges and regulated impacts resulting from the operation of the completed facility may be required.

Effective Best Management Practices (BMPs), as provided in the *Alabama Handbook For Erosion Control, Sediment Control, And Stormwater Management On Construction Sites And Urban Areas*, as amended, Alabama Soil and Water Conservation Committee (ASWCC), for prevention and control of nonpoint sources of pollutants must be implemented prior to, during, and after project implementation. Immediately after completion of the project, effective measures to ensure permanent revegetation, cover, and/or effective stormwater quality remediation must be implemented and maintained. The CGP requires that a CBMPP to reduce pollutant discharges to the maximum extent practicable be prepared by a qualified credentialed professional (QCP) as defined in the CGP, and retained onsite. Information regarding construction activities forms, and other helpful information is available on the ADEM WebPage at <http://www.adem.state.al.us/programs/water/constructionstormwater.cnt>

Tennessee River Watershed - In order to determine whether this project should be covered under an existing CWA Section 404, Nationwide, or General Permit, or Letter of Permission, you should contact the U. S. Army Corps of Engineers, Nashville District by mail at PO Box 1070, Nashville, TN 37202-1070 or by phone at (615) 736-5181. Facilities covered under a U.S. Army Corps of Engineers Individual 404 Permit, Nationwide or General Permit, or Letter of Permission must apply for NPDES stormwater coverage from ADEM, if construction or land disturbance above the Ordinary High Water Mark, or any non-dredge/fill operations below the Ordinary High Water Mark and associated upland dredge disposal sites that will equal or exceed one (1) acre or that are part of a larger common plan of development or sale in which disturbed acreage will eventually equal or exceed (1) acre.



All Other Alabama Watersheds - In order to determine whether this project should be covered under an existing CWA Section 404, Nationwide, or General Permit, or Letter of Permission, you should contact the U.S. Army Corps of Engineers, Mobile District by mail at PO Box 2288, Mobile, AL 36628-0001 or by phone at (251) 690-2658. Facilities covered under a U.S. Army Corps of Engineers Individual 404 Permit, Nationwide or General Permit, or Letter of Permission must apply for NPDES stormwater coverage from ADEM, if construction or land disturbance above the Ordinary High Water Mark, or any non-dredge/fill operations below the Ordinary High Water Mark and associated upland dredge disposal sites that will equal or exceed one (1) acre or that are part of a larger common plan of development or sale in which disturbed acreage will eventually equal or exceed (1) acre.

ADEM's Coastal Program manages uses and activities having the potential to significantly impact the coastal portions of Alabama and/or its resources. The Coastal Area is comprised of only a portion of Mobile and Baldwin counties and is defined as the lands and waters seaward of the continuous ten-foot contour. ADEM issues Coastal Programs Non-Regulated Use Permits for commercial and residential developments greater than 5 acres in size, construction on Gulf-fronting properties intersected by the Construction Control Line, and groundwater wells that exceed 50 gallons per minute of water withdrawal. ADEM also must certify that permits issued by federal and state agencies, and projects conducted by those agencies, are consistent with the Coastal Program. ADEM accomplishes this by reviewing applications for permits submitted to other agencies. Therefore, it is recommended that applicants having development plans, or even considering development in the Coastal Area, consult with ADEM Coastal Program staff as soon as possible in the project development stage so that the applicant can learn of applicable requirements. Questions involving projects in the coastal area should be directed to the ADEM Coastal Office in Mobile.

You may also wish to contact: (1) the U.S. Fish & Wildlife Service and the Alabama Department of Conservation & Natural Resources. These are the Federal and State agencies, respectively, that have primacy and statutory authority to address potential impacts to endangered or threatened species, (2) the Office Of Water Resources, Alabama Department of Economic and Community Affairs, which is the State agency with primacy and statutory authority to address potential water quantity concerns or issues, (3) the State Fire Marshall and the Alabama Department of Industrial Relations which are the State agencies with primacy and statutory authority to address potential safety considerations regarding blasting, (4) the Alabama Department of Industrial Relations which requires permit coverage and reclamation bonding for most non-coal mining sites, (5) the Alabama Historical Commission which is the State agency with primacy and statutory authority to address preservation or potential impacts to surrounding or onsite historical or archaeological sites, (6) your local county health department for issues related to onsite sewage management, and (7) your local municipal or county government, or local zoning and planning agency, if applicable, for additional approvals that may apply to your project.

In recognition that projects are site specific in nature and conditions can change during project implementation, the Department reserves the right to require the submission of additional information or require additional management measures to be implemented, as necessary on a case-by-case basis, in order to ensure the protection of water quality. Responsibility for compliance with ADEM rules and permit requirements are not delegable by contract or otherwise. The operator or owner must ensure compliance. Any violations resulting from the actions of such person may subject the operator/owner to enforcement action.

ADEM permitting decisions are predicated on current regulatory requirements, established engineering standards and technical considerations, best management practices information, and formal administrative procedures in conformance with Departmental regulations and applicable Alabama law. Issuance of permit coverage by ADEM neither precludes nor negates an operator/owner's responsibility or liability to apply for, obtain, or comply with other ADEM, federal, state, or local government permits, certifications, licenses, or other approvals. ADEM permit coverage does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations.

If you have any questions or need additional information regarding construction stormwater permitting, please contact the Water Division in Montgomery at (334) 271-7700 or [cswmail@adem.state.al.us](mailto:cswmail@adem.state.al.us).



ITT **EXELIS**



July 10, 2012

Mr. Lance LeFleur, Director  
Alabama Department of Environmental Management (ADEM)  
1400 Coliseum Blvd  
Montgomery, AL36110-2400

RE: Proposed Family Campground Expansion  
Maxwell Air Force Base, Alabama

Dear Mr. LeFleur,

The United States Air Force (USAF) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). The Air Education and Training Command (AETC) and the 42d Air Base Wing (ABW) propose to improve and expand the facilities at the existing Family Campground (FamCamp) at Maxwell Air Force Base (AFB). Improved facilities are needed to support the increasing demand for camping spaces and associated amenities. The Proposed Action would improve opportunities for rest and recuperation, as well as temporary housing, for Airmen and their families at the existing FamCamp.

Under the Proposed Action, the improvements would occur within the previously disturbed areas of the FamCamp area, which is located near the southwest portion of Maxwell AFB (see Figure 1). The Proposed Action includes the following tasks:

Task 1 includes replacing an existing temporary modular bath house with a permanent bath house and laundry room. The proposed action would include demolishing the temporary structure; removing the existing septic tank; and constructing a permanent facility. The new facility would tie in to the existing sanitary sewer line.

Task 2 includes a major renovation of the existing concrete bath house located near the existing administrative building. Renovations would include reconfiguring the stalls, upgrading the plumbing, fixtures, lighting, flooring and electrical system.

Task 3 includes constructing a new boat dock, fishing pier and aeration fountains to the existing ponds. Constructing a fishing pier and boat dock would provide visitors an easy and safe access to deeper water.

Task 4 includes expanding existing administrative and recreation facilities. The new facility would combine administrative offices with a community meeting room or indoor recreational space. The specific location within the FamCamp has not been identified.



Task 5 includes reconfiguring seven existing trailer pads near the southeastern corner of the southern lake, resulting in 13 trailer pads within the same footprint. A new gravel access road would also be constructed to improve vehicle access along the western side of the new pads.

Task 6 includes constructing twelve trailer pads along the southwestern portion of the property. This would include widening an existing access road, constructing a new gravel access road and improving an existing gravel drive. Improvements in this area would also include a new bathhouse and laundry facility; a picnic pavilion; a dumpster pad and two playground areas.

Task 7 includes creating new camping spaces on the east side of March Road, just north of the existing ball fields. The new camping spaces would provide 12 full utility hook-ups and a new gravel access road east of March Road.

Some of the Proposed Actions would occur within the 100-year floodplain. The EA will evaluate the potential effects on the human and natural environment that may result from the implementation of the Proposed Action. The USAF will also consider the potential effects of the No-Action Alternative.

In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs* and Air Force Instruction 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning* (IICEP), we are requesting any comments or concerns you may have with the proposed project. In order to properly evaluate cumulative impacts, we are also requesting that you identify any major projects (recently conducted, presently underway, or planned for the near future) that are in the vicinity of the Proposed Action.

Please send your comments, concerns and identified projects to Mr. Jeff Jones within 30 days of receipt of this letter.

We appreciate your assistance in the matter and look forward to hearing from you. If you have any questions about this request, please contact Mr. Jeff Jones by phone at (334) 953-5757 or email at [Jeffery.Jones@maxwell.af.mil](mailto:Jeffery.Jones@maxwell.af.mil).

Sincerely,



Jeff Jones, CSP, CHMM, CHST  
ESH Manager  
ITT Exelis, Mission Systems  
42 CES/CEV

Enclosures

Figure 1 – Location Map of the Proposed Action

Figure 2 – Location of Proposed Action Tasks





Figure 1  
Location Map of the Proposed Action  
Maxwell AFB, Alabama



This map represents the approximate areas for the Proposed Action Tasks as identified. The exact location of Task 4 has not been determined.



0 500 1,000 Feet

Figure 2  
Location of Proposed Action Tasks  
Maxwell AFB, Alabama





**NOTICE OF INTENT – GENERAL PERMIT NUMBER ALR100000**

NPDES PERMIT NUMBER ALR100000 IS A GENERAL PERMIT AUTHORIZING DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT RESULT IN A TOTAL LAND DISTURBANCE OF ONE ACRE OR GREATER AND SITES LESS THAN ONE ACRE BUT ARE PART OF A LARGER COMMON PLAN OR DEVELOPMENT OR SALE

**Mail to:** Alabama Department of Environmental Management  
 Water Division  
 Post Office Box 301463  
 Montgomery, Alabama 36130-1463

**FOR OFFICE USE ONLY**

NPDES PERMIT NUMBER

RECEIPT NUMBER

PLEASE COMPLETE ALL QUESTIONS. RESPOND WITH "N/A" AS APPROPRIATE. INCOMPLETE OR INCORRECT ANSWERS, OR MISSING SIGNATURES WILL DELAY PROCESSING. IF SPACE IS INSUFFICIENT, CONTINUE ON AN ATTACHED SHEET(S) AS NECESSARY. ATTACH CBMPP AND OTHER INFORMATION AS NEEDED. PLEASE TYPE OR PRINT LEGIBLY IN INK.

I. PERMITTEE INFORMATION Initial: ☐ Modification: ☐ Transfer: ☐ Renewal: ☐ Previous ALR: \_\_\_\_\_

Permittee Name	Responsible Official Phone Number
Responsible Owner/Operator or Official, and Title	Responsible Official E-Mail Address
Responsible Official (RO) Street/Physical Address	City, State, and Zip Code
Responsible Official (RO) Mailing Address	City, State, and Zip Code

**II. FACILITY INFORMATION**

Facility/Site Name	Facility Contact and Title
Facility Street Address or Location Description	Facility Contact Phone Number
Facility Front Gate Latitude and Longitude	City Zip Code County(s)
Directions to the Site	

**III. ACTIVITY DESCRIPTION**

Brief Description of Construction / Land disturbance activity(s):	
_____	
Area of the Permitted site:	Total site area in acres: _____ Total disturbed area in acres: _____

**IV. RECEIVING WATERS**

List name of receiving water(s), latitude & longitude (decimal or deg,min,sec) of location(s) that run-off enters the receiving water, and the waterbody classification.			
Receiving Water	Latitude	Longitude	Waterbody Classification

## **APPENDIX B**

### **Public Involvement**

As required by NEPA, the Air Force provides opportunities for public involvement in the NEPA process. A public notice, announcing the availability of the Draft EA and proposed FONSI/FONPA for proposed construction of new and updated training facilities at Maxwell Air Force Base, Alabama, was published in the Montgomery Advertiser on February 1, 2013. The notice invited public review and comment on the Draft EA and FONSI/FONPA, and indicated that copies of the document were available at the Montgomery Public Library and Air University Library. A privacy advisory was included with the public notice and indicated that comments received on the Draft EA and FONSI/FONPA and the commenter's name could be published in the Final EA and FONSI/FONPA, but personal home addresses and phone numbers would not be published. Please see the following page for a copy of the Public Notice.

The public comment period ended on March 4, 2013. No comments were received during the public comment period.

**DRAFT ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO  
SIGNIFICANT IMPACT AND DRAFT FINDING OF NO PRACTICABLE  
ALTERNATIVE PROPOSED FAMILY CAMPGROUND EXPANSION  
MAXWELL AIR FORCE BASE, ALABAMA**

In accordance with the National Environmental Policy Act (NEPA), Maxwell AFB is making available for the public a Draft Environmental Assessment (EA), a Draft Finding of No Significant Impact (FONSI) and a Draft Finding of No Practicable Alternative (FONPA).

The United States Air Force (USAF) is preparing an EA in accordance with the NEPA. The USAF proposes to improve and expand the facilities at the existing Family Campground (FamCamp) at Maxwell Air Force Base (AFB). The proposed action includes improving the bathing and laundry facilities; improving the indoor and outdoor recreational facilities; improving the administration area; and increasing the number of camping spaces with utility hook-ups to meet the increasing demand. The improvements would occur within the previously disturbed areas of the FamCamp area, which is located in the southwest portion of Maxwell AFB.

The environmental aspects of the proposed action and alternatives were considered in the draft EA. Maxwell AFB has assessed the potential environmental impacts of the proposed action, as described in the Draft EA, and has determined that it will not significantly impact the quality of the environment. The Draft FONSI documents this assessment. The Draft FONPA documents that there is no practicable alternative to the proposed action. A copy of the Draft FONSI and Draft EA are available for public review at the Montgomery City-County Public Library, 245 High Street, and the Air University Library, Maxwell AFB.

Any comments regarding the draft EA or draft FONSI should be submitted in writing within 30 days of the publication of this notice to: 42 CES/CEV, 400 Cannon Street, Maxwell AFB, AL 36112-6335. For further information, please contact Mr. Jeff Jones by phone at (334) 953-5757 or email at [Jeffery.Jones@maxwell.af.mil](mailto:Jeffery.Jones@maxwell.af.mil).

**PRIVACY ADVISORY NOTICE**

Public comments on this draft Environmental Assessment (EA) are requested pursuant to the National Environmental Policy Act, 42 United States Code 4321, *et seq.* All written comments received during the comment period will be made available to the public and considered during Final EA preparation. Providing private address information with your comment is voluntary and such personal information will be kept confidential unless release is required by law. However, address information will be used to compile the project mailing list and failure to provide it will result in your name not being included on the mailing list.

# Defense

Continued » 1B

tee, which held a hearing Thursday on Hagel's nomination. The panel will decide whether to send the nomination to the full Senate for a confirmation vote.

Hagel co-authored a report last year with the group Global Zero that speculated on the possibility the U.S. could drastically reduce its nuclear weapons stockpile and gradually eliminate its intercontinental ballistic missiles.

Sessions confronted his former colleague on the nuclear issue during Thursday's hearing, prompting Hagel to de-

fend his record.

"A strong, agile, safe, secure, effective nuclear arsenal for the U.S. is not debatable," Hagel said. "I've voted that way. I believe that. What has kept the peace ... as much as anything else in the world is that strong nuclear deterrent."

Sessions wasn't satisfied.

"I appreciate your comments today, but I am troubled by the language in that report," he said.

The other co-authors of the Global Zero U.S. Nuclear Policy Commission Report — Richard Burt, former ambassador to Germany, retired Marine Gen. James E. Cartwright, former United Nations Ambassador Thomas Pickering and

retired Marine Gen. John J. Sheehan — rejected suggestions their report advocated unilateral disarmament or weakening the deterrent effect of nuclear weapons.

"On the contrary, we have developed a serious and sensible approach to developing a U.S. defense strategy that can best address the 21st-cen-

tury threats we face and strengthen our national security," the authors said in a prepared statement defending Hagel. "The status quo, with large nuclear arsenals on launch-ready alert, poorly serves our security needs in an era of nuclear proliferation and potential nuclear terrorism."

## TODAY'S BIRTHDAYS

- » Charles Brantley, Montgomery
- » Brooklyn Whittle, Montgomery

## ONLINE TODAY

- » Photos from Autauga Academy girls hoops
  - » Photos from hostage situation in Midland City
  - » Photos of Montgomery Zoo lion picking Super Bowl loser
  - » Photos from Wishbone Studio
- Check it out on:**  
[montgomeryadvertiser.com](http://montgomeryadvertiser.com)

## TOP 5 STORIES

- » Hostage standoff drags on: Gunman hunkers down: Suspect keeps police at bay
- » Auburn football — RB all out on Plains: Blakely no longer with the Tigers
- » Neighbors: Suspect in Dale County standoff was violent
- » Gunman's neighbor: 'I believe he's capable of anything'
- » Negotiators talking to captor through pipe

## LOTTERIES

### WEDNESDAY NUMBERS Florida

Cash 3 Midday: 4-8-1  
Cash 3 Evening: 5-5-1  
Play 4 Midday: 8-2-1-3  
Play 4 Evening: 8-6-8-3  
Fantasy 5: 12-13-14-27-36

**Georgia**  
Cash 3 Midday: 1-6-0  
Cash 3 Evening: 8-0-2  
Cash 4 Midday: 9-9-9-2  
Cash 4 Evening: 3-4-6-9  
Fantasy 5: 5-12-30-33-39  
Win For Life: 2-7-10-15-22-26  
Free Ball: 40

### THURSDAY NUMBERS Florida

Cash 3 Midday: 2-4-6  
Cash 3 Evening: 9-1-7  
Play 4 Midday: 0-3-7-7  
Play 4 Evening: 0-9-5-1  
Fantasy 5: 3-15-16-29-33

**Georgia**  
Cash 3 Midday: 7-1-6  
Cash 3 Evening: 9-6-6  
Cash 4 Midday: 9-0-0-6  
Cash 4 Evening: 4-4-6-2  
Fantasy 5: 5-15-16-33-35

## FORTIS COLLEGE

*Your Life. Powered By Learning*

### PREPARE TO BECOME A CERTIFIED NURSING ASSISTANT TODAY

Evening Classes offered at the new

Fortis College Campus

3470 Eastdale Circle

Montgomery, AL 36117

For more information, please call 866-234-9163

For consumer information visit [www.FortisCollege.edu](http://www.FortisCollege.edu)

### DRAFT ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT AND DRAFT FINDING OF NO PRACTICABLE ALTERNATIVE PROPOSED FAMILY CAMPGROUND EXPANSION MAXWELL AIR FORCE BASE, ALABAMA

In accordance with the National Environmental Policy Act (NEPA), Maxwell AFB is making available for the public a Draft Environmental Assessment (EA), a Draft Finding of No Significant Impact (FONSI) and a Draft Finding of No Practicable Alternative (FONPA).

The United States Air Force (USAF) is preparing an EA in accordance with the NEPA. The USAF proposes to improve and expand the facilities at the existing Family Campground (FamCamp) at Maxwell Air Force Base (AFB). The proposed action includes improving the bathing and laundry facilities; improving the indoor and outdoor recreational facilities; improving the administration area; and increasing the number of camping spaces with utility hook-ups to meet the increasing demand. The improvements would occur within the previously disturbed areas of the FamCamp area, which is located in the southwest portion of Maxwell AFB.

The environmental aspects of the proposed action and alternatives were considered in the draft EA. Maxwell AFB has assessed the potential environmental impacts of the proposed action, as described in the Draft EA, and has determined that it will not significantly impact the quality of the environment. The Draft FONSI documents this assessment. The Draft FONPA documents that there is no practicable alternative to the proposed action. A copy of the Draft FONSI and Draft EA are available for public review at the Montgomery Public Library, 245 High Street, and the Air University Library, Maxwell AFB.

Any comments regarding the draft EA or draft FONSI should be submitted in writing within 30 days of the publication of this notice to: 42 CES/CEV, 400 Cannon Street, Maxwell AFB, AL 36112-6335. For further information, please contact Mr. Jeff Jones by phone at (334) 953-5757 or email at [Jeffery.Jones@maxwell.af.mil](mailto:Jeffery.Jones@maxwell.af.mil).

### PRIVACY ADVISORY NOTICE

Public comments on this draft Environmental Assessment (EA) are requested pursuant to the National Environmental Policy Act, 42 United States Code 4321, *et seq.* All written comments received during the comment period will be made available to the public and considered during Final EA preparation. Providing private address information with your comment is voluntary and such personal information will be kept confidential unless release is required by law. However, address information will be used to compile the project mailing list and failure to provide it will result in your name not being included on the mailing list.

AL-0000467076