

Final

**Environmental Assessment for the Construction and Operation
of a
Division Street Gate
at
Keesler Air Force Base
Biloxi, Mississippi**

June 2015



**DEPARTMENT OF THE AIR FORCE
Keesler Air Force Base
Biloxi, Mississippi**

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Cover Sheet

Environmental Assessment for the Construction and Operation of a Division Street Gate Keesler Air Force Base Biloxi, Mississippi

Responsible Agencies: U.S. Air Force, 81st Training Wing, Keesler Air Force Base (AFB), Mississippi

Affected Location: Keesler AFB, Harrison County, Mississippi

Proposed Action: Construction and operation of a new Anti-terrorism/Force-protection (AT/FP)-complaint gate at Division Street with a new visitor's center and commercial inspection area.

Report Designation: Final Environmental Assessment

Responsible Agency: Department of the Air Force

Keesler AFB Point of Contact: Ms. Janet Lanier, PAE/CEV, Environmental and Planning Manager, Keesler Air Force Base, MS 39534, 228-377-1262, janet.lanier.ctr@us.af.mil.

Abstract: Keesler AFB proposes to construct a new AT/FP-compliant main gate at Division Street. The new gate would have a visitor center/contractor center, vehicle inspection facility, gatehouses, guard kiosks, and over-watch facilities. The proposed location for the new gate is off Division Street on the east side of the base, the site of a former housing area at the southeast corner of Keesler AFB. This vacant on-base property is approximately 33 acres and is large enough to accommodate all facilities necessary for a new main gate. The U.S. Air Force would purchase up to six private properties near the intersection of Forrest Avenue and Division Street to join the base and the new gate to Division Street. Two gates—a temporary commercial gate on the base's northern boundary and the Meadows Drive gate—would be closed when the new main gate was completed. The Meadows Drive gate is not AT/FP compliant and traffic through the temporary commercial gate passes through a residential area.

The EA considers direct, indirect, and cumulative effects on the human and natural environments of the proposed action. Two alternatives for the proposed action and the No Action Alternative are analyzed. The Preferred Alternative is to implement the full Division Street gate as described above. Alternative 2 is to implement the full proposed action, but in two phases. The EA analysis finds that no significant impacts would result from implementing the proposed action under either alternative, or from the No Action Alternative.

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AADT	average annual daily traffic
AFB	Air Force Base
AFI	Air Force Instruction
ANSI	American National Standard Institute
AQCR	Air-Quality Control Region
AT/FP	Anti-Terrorism/Force Protection
BMP	best management practice
CARB	California Air Resources Board
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CO ₂	carbon dioxide
dB	decibel
dBA	A-weighted decibel
DNL	Day Night Sound Level
DoD	Department of Defense
EA	environmental assessment
EBS	Environmental Baseline Survey
EIAP	Environmental Impact Analysis Process
EIFS	Economic Impact Forecast System
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	Environmental Restoration Program
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
FY	fiscal year
GHG	greenhouse gas
I	Interstate
ID	Mississippi Department of Transportation Identification Number
IICEP	Intergovernmental Coordination for Environmental Planning
LEED	Leadership in Energy & Environmental Design
Leq	equivalent sound level
LOS	Level of Service
m	meter
MDAH	Mississippi Department of Archives and History
MDEQ	Mississippi Department of Environmental Quality
MDOT	Mississippi Department of Transportation
NEPA	National Environmental Policy Act
NO _x	oxides of nitrogen
NSA	noise sensitive area
O ₃	ozone
PM ₁₀	particulate matter
POV	privately-owned vehicle

ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RONA	Record of Non-Applicability
RTV	rational threshold value
SDDCTEA	Military Surface Deployment and Distribution Command Transportation Engineering Agency
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	oxides of sulfur
sqft	square feet
SR	State Route
tpy	tons per year
U.S.C.	United States Code
UFC	Unified Facilities Criteria
US	United States
USAF	U.S. Air Force
USEPA	United States Environmental Protection Agency
V	volume
V/C	volume to capacity ratio
VOC	volatile organic compounds
vpd	vehicles per day
vph	vehicles per hour

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1.0 PURPOSE, NEED, AND SCOPE

1.1 BACKGROUND

Keesler Air Force Base (AFB) is home to the 81st Training Wing, which is comprised of three large groups of squadrons: the 81st Training Group (the largest electronics training group in the United States [U.S.] Air Force [USAF]), the 81st Medical Group (the second largest medical facility in the USAF), and the 81st Mission Support Group. Other military support units on Keesler AFB include the 403d Wing (USAF Reserve), Headquarters 2nd Air Force, 85th Engineering Installation Squadron, and Noncommissioned Officer Academy (NCOA). Keesler AFB's primary mission is to provide technical training, and it is considered the computer and electronics training "Center of Excellence" for the USAF. A daily average of 3,400 students is enrolled in more than 300 training programs taught at the base.

Keesler AFB is in Harrison County, Mississippi and the boundaries of the City of Biloxi (Figure 1-1). The base occupies 1,646 acres on a narrow peninsula bordered by the Back Bay of Biloxi to the north and the Gulf of Mexico to the south. U.S. Highway 90 parallels the southern border of the base and provides access to Interstate 10 by U.S. Highways 49 and 110. The main base consists of 1,447 acres and is densely developed.

Keesler AFB proposes to construct a new Anti-Terrorism/Force Protection (AT/FP)-compliant main gate that would serve several functions requiring separate facilities. These facilities would consist of a visitor center/contractor center, vehicle inspection facility, gatehouses, guard kiosks, and over-watch facilities. The vehicle inspection facility and gatehouses would have support spaces such as restrooms, telecommunications, and mechanical/electrical rooms. All facilities would be built and located to optimize the efficiency of vehicle approach, inspection, and response functions. Two Keesler AFB gates that do not meet AT/FP standards (a temporary commercial gate and the Meadows Drive gate) would be closed after construction of the new gate. This environmental assessment (EA) addresses the potential impacts of undertaking this proposed action.

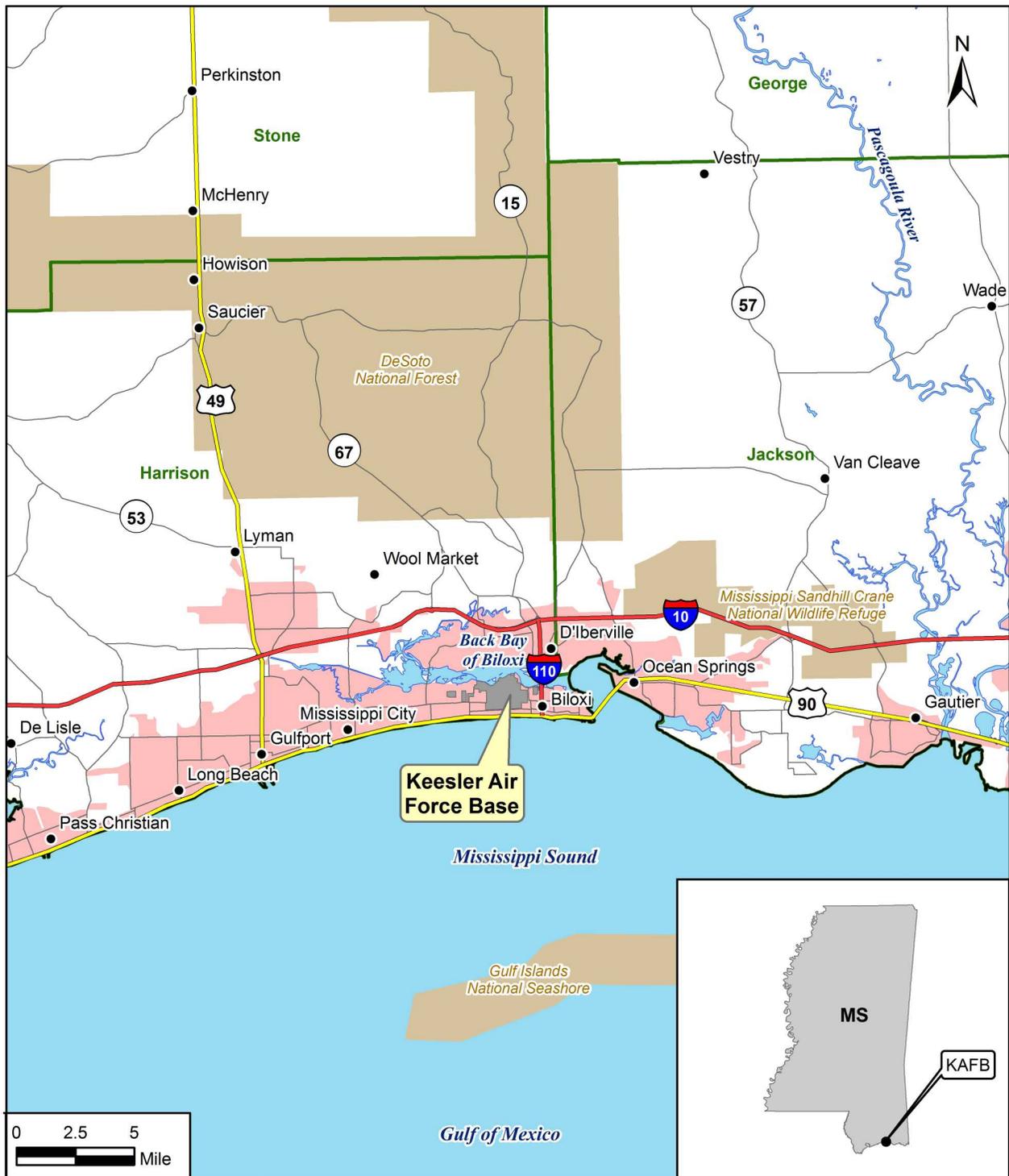
1.2 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.2.1 Purpose of the Action

The USAF proposes to construct a new, AT/FP-compliant main gate on Keesler AFB to serve both privately owned vehicles (POVs) and commercial traffic. The base's main gate must be ready to take any defensive to ensure security and safety, and Keesler AFB's existing main gate, the White Avenue gate, does not meet this requirement. The new main gate would improve security, personnel safety, gate capacity, traffic flow, and the base's public image, as well as provide sufficient capacity to reduce delays that cause traffic backups on neighboring local roads.

1.2.2 Need for the Action

The main gate at White Avenue on the southern boundary of the base does not meet Air Force entry gate standards for AT/FP but serves as the visitor's entrance and a Department of Defense (DoD) personnel gate. Commercial vehicles are allowed to enter through the gate after 5:00 p.m. only. Extensive delays and backups on the local roads frequently occur at the gate. A major rail line and road system are within 200 feet of the White Avenue gate house, which adversely affects safety and the flow of traffic at the gate. There is not enough available space at the gate to accommodate required security measures to make it AT/FP-compliant.



LEGEND

Interstate Highway	Urban Area
U.S. Route	Surface Water
Major Road	Park/Reserve
County Boundary	

Location Map

Figure 1-1

A temporary gate for commercial traffic on the northern boundary of the base is not AT/FP-compliant and traffic to and from the gate passes through the Oak Park residential neighborhood. This creates undesirable noise for Oak Park residents and wear and tear on roads not constructed for commercial traffic. A new main gate with an adequate area to accommodate a visitor's center, commercial vehicles, and POVs and that meets all AT/FP entry gate requirements is needed at Keesler AFB.

1.3 SCOPE OF THE ANALYSIS

This EA considers direct, indirect, and cumulative effects on the human and natural environments of the proposed action. The EA also considers the effects of other alternatives, including the No Action Alternative. The following resource areas were identified as having the potential to be adversely affected and are therefore analyzed for all alternatives carried forward for analysis in the EA:

- Land Use
- Aesthetics and Visual Resources
- Air Quality
- Noise
- Geology and Soils
- Water Resources
- Biological Resources
- Cultural Resources
- Socioeconomics and Environmental Justice
- Transportation
- Infrastructure and Utilities
- Hazardous and Toxic Substances
- Safety and Occupational Health
- Sustainability and Greening

1.4 SUMMARY OF KEY ENVIRONMENTAL COMPLIANCE REQUIREMENTS

1.4.1 National Environmental Policy Act

This EA was prepared in accordance with the National Environmental Policy Act (NEPA) (Title 42 of the *United States Code* [U.S.C.] section 4321 *et seq.*), Council on Environmental Quality (CEQ) Regulations (Title 40 of the *Code of Federal Regulations* [CFR] Parts 1500–1508), and the USAF's implementing regulation for NEPA (*Environmental Impact Analysis Process* [EIAP], 32 CFR Part 989). NEPA is a federal statute requiring the identification and analysis of potential environmental impacts of proposed federal actions before those actions are taken.

Under NEPA, an EA is prepared to analyze the potential effects of the proposed action and other reasonable alternatives, including the No Action Alternative. If the analyses presented in an EA indicate that implementation of the proposed action would not result in significant environmental impacts, a Finding of No Significant Impact (FONSI) is prepared. A FONSI briefly presents reasons why a proposed action would not have a significant effect on the human and natural environment. If significant environmental issues are identified that cannot be mitigated to insignificance, an environmental impact statement would be prepared, or the proposed action would be abandoned and no action would be taken.

1.4.2 Integration of Other Environmental Statutes and Regulations

Air Force Policy Directive 32-70, *Environmental Quality*, states that the USAF will comply with applicable federal, state, and local environmental laws and regulations, including NEPA. The USAF's implementing regulation for NEPA is the EIAP. This EA also serves as a means for ensuring compliance with applicable federal statutes, including the Endangered Species Act, Clean Water Act, Clean Air Act, National Historic Preservation Act, various Executive Orders (EOs), and applicable state statutes and regulations. Where useful to provide better understanding, key provisions of the statutes and EOs are discussed in more detail in the text of the EA.

1.5 PUBLIC REVIEW AND INTERAGENCY COORDINATION

The Intergovernmental Coordination Act and EO 12372, *Intergovernmental Review of Federal Programs*, requires intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the process of Interagency and Intergovernmental Coordination for Environmental Planning (IICEP), the proponent must notify concerned federal, state, and local agencies and allow them sufficient time to evaluate potential environmental impacts of a proposed action. Comments from these agencies are subsequently incorporated into the EIAP. IICEP letters were sent to 13 potentially concerned parties on January 26, 2015, with responses requested by March 15, 2015. Nine of the parties contacted responded. The City of Biloxi noted that it strongly supports the Preferred Alternative (Alternative 1; see Section 2.2), though it could also support a phased approach for the construction of the Division Street gate (Alternative 2; see Section 2.3). The Southern Mississippi Planning and Development District found the proposed project consistent with its Comprehensive Economic Development Strategy. The Gulf Regional Planning Commission noted that closing two gates and opening a new gate will affect traffic patterns in the vicinity of the base, and requested that a thorough assessment of local circulation patterns to consider the impact of the changed traffic volumes be conducted. Both the Choctaw Nation of Oklahoma and the Jena Band of Choctaw Indians concur with a finding of “No Historic Properties Affected” for the proposed project. The Department of Marine Resources, which in cooperation with other state agencies is responsible under the Mississippi Coastal Program (MCP) for managing the coastal resources of Mississippi, had no objections provided that the project has no direct or indirect impacts to coastal wetlands and no coastal program agency objects to the proposal. The Mississippi Department of Archives and History (MDAH) noted that the residences to be demolished could be under consideration for inclusion in an historic district, and requested documentation of the houses before they are demolished. Copies of the letters to the parties and responses received are in Appendix A.

The Draft EA and draft FONSI/FONPA were made available for public review from April 17, 2015 to May 17, 2015. A notice of availability of the Draft EA and FONSI/Finding of No Practicable Alternative (FONPA) was published in the *Biloxi Sun-Herald* on April 17, 2015, and a copy of the Draft EA and draft FONSI/FONPA was available for review at the Biloxi Public Library at 580 Howard Avenue in Biloxi, Mississippi. Two responses—from the U.S. Fish and Wildlife Service and the Jena Band of Choctaw Indians—were received (see Appendix B). Neither response raised concerns about the proposed project, the EA, or the FONSI/FONPA.

1.6 ORGANIZATION OF THE DOCUMENT

This EA is organized into six sections and appendices.

- Section 1 contains the purpose of and need for the proposed action, the location of the proposed action, background information about Keesler AFB, a description of interagency coordination and community involvement, and an introduction to the organization of the EA.
- Section 2 provides a description of the screening criteria used to select alternatives for implementing the proposed action, the Preferred Alternative, other alternatives considered, and the No Action Alternative.
- Section 3 contains a general description of the biophysical resources and baseline conditions that could be affected by the proposed action or the alternatives, and it presents an analysis of the potential environmental consequences.
- Section 4 analyzes the potential cumulative impacts on Keesler AFB.
- Section 5 lists the preparers of the EA.
- Section 6 lists the sources of information used in preparing the EA.

Appendices to the EA include copies of the IICEP letters mailed to agencies and other interested parties for this action and responses received (Appendix A), agency and public comments on the Draft EA and draft FONSI/FONPA (Appendix B), supplemental information supporting the analyses in the EA (Appendix C), and a federal coastal zone consistency determination (Appendix D).

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2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

The proposed action is to construct a new AT/FP-compliant main gate on Keesler AFB. The new gate would have a visitor center, contractor center, vehicle inspection facility, gatehouses, guard kiosks, and over-watch facilities. The vehicle inspection facility and gatehouses would have support spaces, such as restrooms, telecommunications, and mechanical/electrical rooms. This section of the EA includes a description of screening criteria, the Preferred Alternative (Alternative 1), Alternative 2, the No Action alternative, and alternatives considered but eliminated from detailed study.

2.1 SELECTION CRITERIA FOR ALTERNATIVES

The primary planning goals and objectives for selecting a new AT/FP-compliant main gate site are:

- Maximize land use/buildable area efficiency balanced with development suitability.
- Provide adequate POV parking.
- Accommodate or mitigate environmental constraints while integrating sustainable principles to minimize adverse environmental effects.
- Work towards strategies and principles required for Leadership in Energy and Environmental Design (LEED) Silver certification.
- Coordinate site development with adjacent land uses while complying with local regulations, including zoning requirements.
- Determine optimal road alignment along with connection points.
- Accommodate the program requirements on the site and improve facility conditions for users.
- Involve all stakeholders in the program definition process and achieve consensus about project goals and objectives.
- Determine optimum functional relationship of facility program elements.

Additionally, this EA considered alternative sites for the construction of a new AT/FP-compliant main gate to be viable and carried them forward for analysis if they met the following selection criteria:

- The new gate must be within a secured perimeter. Per Unified Facilities Criteria (UFC) 4-010-01 (*DoD Minimum Antiterrorism Standards for Buildings*), the following criteria for a secured perimeter apply for conventional construction:
 - 82-foot (25 meter) standoff between on-site POV parking areas and exterior walls of primary gathering facilities.
 - 82-foot (25 meter) standoff between on-site roads and exterior walls of primary gathering facilities.
 - 33-foot (10 meter) standoff between trash enclosures and exterior walls of facilities.
- Security fencing must enclose service and access areas.
- The local offsite roadway circulation and capacity must meet or exceed the anticipated traffic volume and patterns at the new gate.

The following publications provide other facility criteria design requirements that must be met:

- UFC 4-022-01, *Security Engineering: Entry Control Facilities/Access Control Points* (May 2005)

- Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA) Pamphlet 55-15, *Traffic and Safety Engineering for Better Entry Control Facilities* (May 2014)
- *Air Force Installation Entry Control Facilities, Design Guide* (February 2003)

Keesler AFB examined existing gate locations to determine whether these requirements could be met by making improvements or whether a new gate site would be needed to meet the requirements.

2.2 PREFERRED ALTERNATIVE (ALTERNATIVE 1)

The Preferred Alternative (Alternative 1) is to build a new main gate off Division Street on the east side of the base, the site of a former housing area at the southeast corner of Keesler AFB (Figure 2-1). This vacant, on-base property (approximately 33 acres) is large enough to accommodate a visitor center, contractor center, POV and commercial vehicle access inspection facility, over-watch facilities, gatehouse facilities, and guard kiosk/canopy facilities. Most structures that were formerly on the property (family housing and associated community facilities) were damaged or destroyed during Hurricane Katrina in 2005. All structures except roads have since been removed from the property.

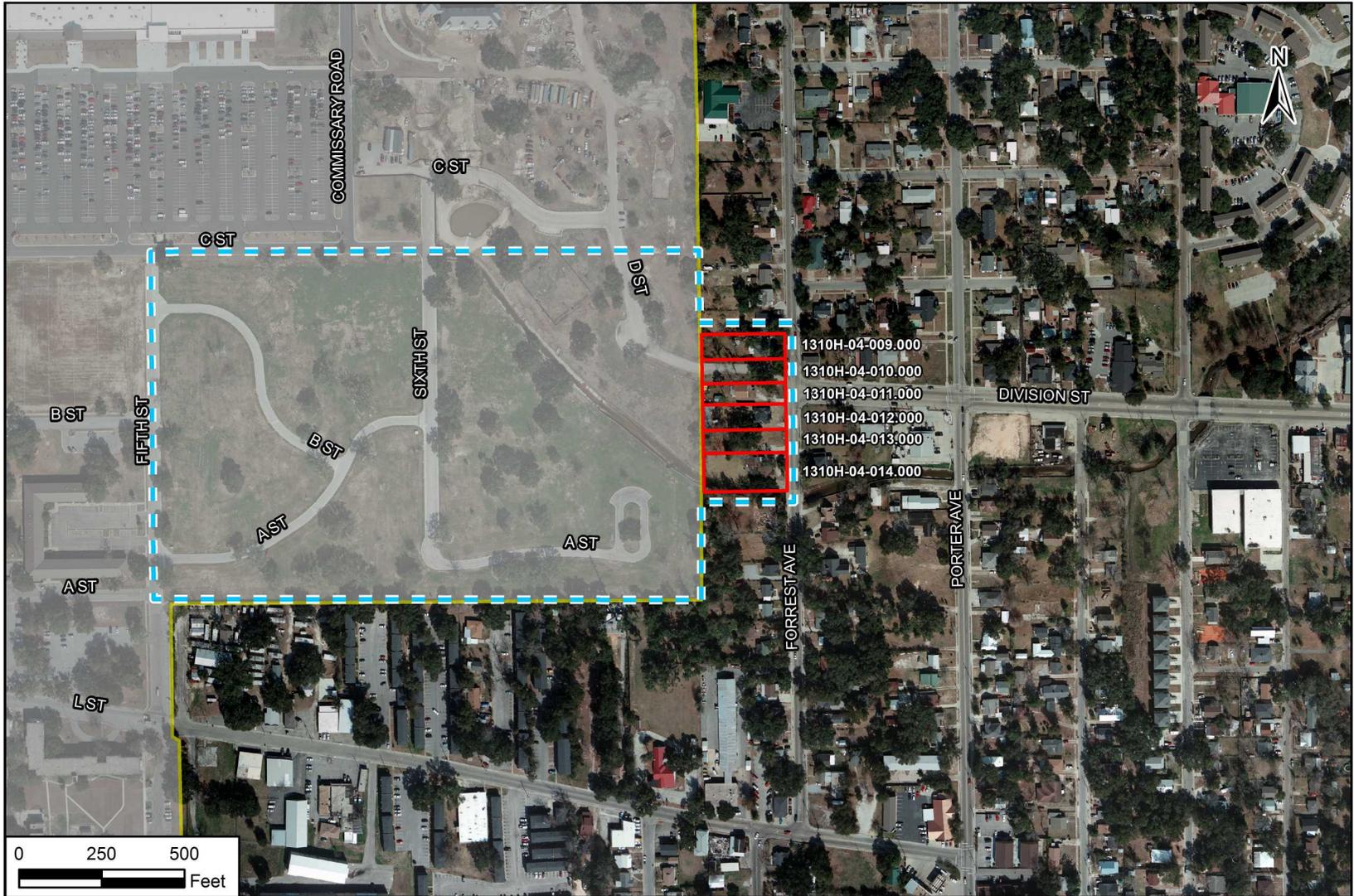
Division Street would serve as the main entrance road to Keesler AFB after the new gate was constructed. Because Division Street does not enter Keesler AFB, the USAF would purchase up to six private properties near the intersection of Forrest Avenue and Division Street to join the base and the new main gate to Division Street. The six properties are two owner-occupied homes, two rental homes, and two vacant properties.

A gate that does not comply with AT/FP standards—the Meadows Drive gate—would be closed when the new main gate was completed (Figure 2-2). The Meadows Drive gate is not compliant with AT/FP requirements and traffic entering through the gate often backs up onto a local road (Forrest Avenue).

An emergency gate on the base's east boundary that is not in use would remain closed. A temporary commercial vehicle gate on the base's northern boundary that is in a residential neighborhood also would be closed and commercial traffic would enter through the new Division Street gate. The White Avenue gate on the base's southern boundary and the Pass Road gate on the base's western boundary would remain open.

The proposed facilities would be constructed with concrete foundations with slab-on-grade floors, concrete-reinforced walls and roofs, brick veneer, and standing seam metal roofs. Erosion and sediment control best management practices (BMPs) would be used during demolition and construction, and disturbed areas in the project area would be reseeded and stabilized upon project completion to prevent excessive erosion, reduce runoff velocity, and to control the proliferation of noxious weeds. The construction activity would be permitted under the Mississippi Department of Environmental Quality (MDEQ) *Large Construction General Permit for Land Disturbing Activities of Five (5) Acres or More*, Permit Number MSR10 (expiration December 31, 2015), or its equivalent, and would incorporate construction stormwater management BMPs in compliance with the permit coverage. The project is proposed for Fiscal Year (FY) 2017.

Most of the proposed location for the Division Street gate is in a 100-year floodplain as designated by the Federal Emergency Management Agency (FEMA), and all facilities would be constructed to comply with applicable standards for facility construction in flood-prone areas. No threatened or endangered species, cultural resources, or wetlands are known to be on the proposed property.



LEGEND

- Keesler AFB
- Residential Parcels Proposed for Acquisition (with parcel numbers)
- Approximate Boundary of Division Street Gate

Site Map

Figure 2-1

Source: KAFB GIS 2014.



Existing and Proposed Gates

Figure 2-2

Source: KAFB GIS 2014; ESRI 2010.

2.3 ALTERNATIVE 2

Alternative 2 is to implement the Preferred Alternative as describe above but over an extended period of time in two phases. Initially, the new gate at the Division Street location would have a vehicle inspection station and would be for commercial and contractor vehicles only. Residential properties along Forrest Avenue would be acquired to provide access to the base from Division Street. This first phase is envisioned to occur in the FY 2016–2017 time frame. Once this phase was completed, the temporary commercial gate on the northern boundary of the base would be closed and commercial traffic would be redirected to the new Division Street gate. The second phase of the Division Street gate construction would occur after the completion of the first phase, depending on funding availability, and would involve construction of a visitor’s center and other facilities not constructed during the first phase to complete the construction of the new main gate. After completion of the second phase, the Meadows Drive gate would be closed and traffic would be redirected to the new Division Street gate.

Facility construction details would be the same as those mentioned for the Preferred Alternative, and other details mentioned above for the Preferred Alternative (compliance with stormwater requirements, presence of floodplains, lack of protected species, wetlands, and cultural resources) apply equally to Alternative 2.

2.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, a new main gate with visitor center and inspection facilities would not be constructed and the following conditions would continue or worsen:

- The unsafe gate operations and traffic back-ups would continue.
- The main gate would not meet AT/FP requirements.
- The temporary commercial gate, which routes trucks through a residential neighborhood and beside the installation medical complex, would require maintenance and upgrades.
- The Meadows Drive gate would continue to be noncompliant with AT/FP requirements and traffic would continue to backup on to local roads.
- Traffic at the White Avenue gate would continue to back up across the railroad tracks and Highway 90.

No changes in current gate configurations would occur under the No Action Alternative. Existing open gates would remain open, maintain the same operating hours, and accommodate the same types of vehicles that they do now. The visitor’s center would remain at the White Avenue gate. No residential properties would be purchased.

The No Action alternative is included in the analysis as prescribed by CEQ regulations. It serves as a baseline against which the impacts of the Preferred Alternative and other alternatives can be evaluated.

2.5 ALTERNATIVES CONSIDERED AND ELIMINATED FROM FURTHER CONSIDERATION

The Air Force may expressly eliminate alternatives from detailed analysis based on reasonable selection criteria. In compliance with NEPA and 32 CFR 989, which implements the NEPA process, the USAF must consider reasonable alternatives for implementing the proposed action. As part of the planning process, Keesler AFB systematically evaluated all siting constraints, operational issues, and other factors to identify the set of project alternatives that would satisfy the purpose and need for the proposed action.

Using the selection criteria, existing facilities/operations, proximity to major transportation arteries, environmental constraints, land use restrictions and land availability, siting of the project area was limited to the southeast portion of the base. Although several gate locations were originally considered for siting, because of off-base and on-base development, the Air Force determined that the purpose of and need for the project could only be met by establishing a new gate at the Division Street location. Other gate locations were considered but were not carried forward for analysis because they had space constraints and did not meet the purpose of and need for the proposed action.

3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 AIRSPACE USE AND MANAGEMENT

3.1.1 Affected Environment

Air traffic in the region is managed through the establishment of controlled airspace by the Federal Aviation Administration (FAA). Keesler AFB regional military airspace is composed of Military Operations Areas, Military Training Routes, and Restricted Areas.

3.1.2 Environmental Consequences

Airspace and airfield operations at the base would be significantly affected if implementing an alternative would: (1) restrict movement of other air traffic in the area, (2) conflict with air traffic control in the region, (3) change operations within airspace already designated for other purposes, (4) result in a need to designate controlled airspace where none previously existed; (5) result in a reclassification of controlled airspace from a less restrictive to a more restrictive classification; or (6) result in a need to designate regulatory special use airspace.

3.1.2.1 Preferred Alternative (Alternative 1)

No effects on airspace use or management would be expected if the Preferred Alternative was implemented. No aspect of the Preferred Alternative is within or would have any effect on airspace at Keesler AFB or other regional airspace.

3.1.2.2 Alternative 2

No effects on airspace use or management would be expected if Alternative 2 was implemented.

3.1.2.3 No Action Alternative

No effects on airspace use or management would be expected if the No Action Alternative was implemented. Airspace use and management would remain unchanged under the No Action Alternative.

3.2 NOISE

3.2.1 Affected Environment

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air, and are sensed by the human ear. Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's *quality of life*, such as construction or vehicular traffic.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz are used to quantify sound frequency. The human ear responds differently to different frequencies. "A-weighting", measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans. Sounds encountered in daily life and their dBA levels are provided in Table 3-1.

Table 3-1. Common Sounds and Their Levels

Outdoor	Sound Level (dBA)	Indoor
Motorcycle	100	Subway train
Tractor	90	Garbage disposal
Noisy restaurant	85	Blender
Downtown (large city)	80	Ringling telephone
Freeway traffic	70	TV audio
Normal conversation	60	Sewing machine
Rainfall	50	Refrigerator
Quiet residential area	40	Library

Source: Harris 1998

The dBA noise metric describes steady noise levels, although very few noises are, in fact, constant. Therefore, A-weighted Day-night Sound Level has been developed. Day-night Sound Level (DNL) is defined as the average sound energy in a 24-hour period with a 10-dB penalty added to the nighttime levels (10 p.m. to 7 a.m.). DNL is a useful descriptor for noise because: (1) it averages ongoing yet intermittent noise, and (2) it measures total sound energy over a 24-hour period. In addition, Equivalent Sound Level (L_{eq}) is often used to describe the overall noise environment. L_{eq} is the average sound level in dB.

Individuals both on and off the installation may be subjected to multiple sources of noise during the day including traffic, aircraft over flights, construction activities, operation of HVAC systems, lawn maintenance, and general maintenance of streets and sidewalks. Existing noise levels (L_{eq} and DNL) were estimated for the surrounding areas using the techniques specified in the American National Standard *Quantities and Procedures for Description and Measurement of Environmental Sound Part 3: Short-term measurements with an observer present*. The proposed site land use category would be considered *quiet suburban residential* having an estimated background noise level of 48 dBA during daytime hours (ANSI 2013). There are approximately 90 residences within 800 feet of the proposed construction site; the closest is 145 feet away. These areas are outside the 65 dBA DNL noise contour and are compatible with the aircraft noise from the base (USAF 2010).

The Noise Control Act of 1972 (PL 92-574) directs federal agencies to comply with applicable federal, state, and local noise control regulations. In 1974, the United States Environmental Protection Agency (USEPA) provided information suggesting continuous and long-term noise levels in excess of DNL 65 dBA are normally unacceptable for noise-sensitive land uses such as residences, schools, churches, and hospitals. Harrison County and the City of Biloxi maintain noise ordinances. Harrison County limits sound levels to 68 dBA in residential areas during daytime hours and prohibits the use of power tools before 7:00 a.m. (HCC 2014). The City of Biloxi limits sound levels to 65 dBA in residential areas during daytime hours and construction is permitted between the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday and noon to 6:00 p.m. on Sunday (BCC 2014). The City of Biloxi also has an Airport Noise Overlay District, within which new buildings must include an appropriate level of exterior-to-interior reduction of noise levels associated with overhead aircraft (City of Biloxi 2013). A reduction of 25–30 dB, depending on proximity to the airfield, is required for areas exposed to a yearly DNL above 65 dBA.

3.2.2 Environmental Consequences

The noise environment would be significantly affected if implementing an alternative would: (1) result in the violation of applicable federal, state, or local noise ordinances, (2) create a noise environment that would be incompatible with existing land uses, or (3) be loud enough to threaten or harm human health.

3.2.2.1 Preferred Alternative (Alternative 1)

Short-term increases in noise would be due to construction activities. Table 3-2 presents typical noise levels (dBA at 50 feet) that USEPA estimated for the main phases of outdoor construction. Individual pieces of construction equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 feet. With multiple items of equipment operating concurrently, noise levels can be relatively high during daytime periods at locations within several hundred feet of active construction sites. The zone of relatively high construction noise typically extends to distances of 400 to 800 feet from the site of major equipment operations.

Table 3-2. Noise Levels Associated With Outdoor Construction

Construction Phase	L _{eq} (dBA)
Ground clearing	84
Excavation, grading	89
Foundations	78
Structural	85
Finishing	89

Source: USEPA 1971

Numerous residences within 800 feet of the site would experience appreciable amount of construction noise. Given the temporary nature of proposed construction activities and the limited amount of noise that heavy equipment would generate, this impact would be minor. In addition, limited truck and worker traffic might be audible at nearby locations, creating minor adverse effects.

None of the proposed construction would be within the Airport Noise Overlay District. The noise contours for Keesler AFB's airfield extend linearly from the airfield runway to the north and south (Keesler AFB 2010), and the noise reduction requirement for new buildings applies primarily to these areas.

Increases in traffic volumes and changes in traffic patterns would have long-term negligible effects on the noise environment. A detailed description of the effects on traffic and transportation resources is in section 3.8. Noise is measured on a logarithmic scale, so a doubling in traffic volume along a two-lane road would not double the noise level, but would increase it by 3 dBA, regardless of the initial traffic volume. For example, traffic generating 60 dBA, if doubled, would yield a total noise level of 63 dBA. Notably, a 3 dBA change in noise levels would be barely perceptible to individuals with average hearing (FHWA 2011).

Alternative 1 would increase traffic along Division Street near the proposed gate by up to 40 percent. This would be a fraction of the current traffic along Division Street and would amount to an increase in noise of approximately 1–2 dBA, which would be a barely perceptible change in the noise environment when compared to existing conditions, if it would be perceptible at all. These effects would be negligible. There would be no change in military training activities, use of weaponry, demolitions, or aircraft operations attributable to the Preferred Alternative.

3.2.2.2 Alternative 2

The nature of and overall level of effects on the noise environment under Alternative 2 would be similar to those outlined under the Preferred Alternative (Alternative 1). Because Alternative 2 would be implemented over a longer period in two phases, long-term changes in the noise environment would be perceived to be less than those under the Preferred Alternative; residents and visitors in the affected area would become partially acclimated to the changes during the first phase of Alternative 2 before the

second phase would be implemented. All applicable regulations and BMPs would be similar to those outlined under the Preferred Alternative (Alternative 1).

3.2.2.3 No Action Alternative

Selecting the No Action Alternative would result in no impact to the noise environment. No construction would be undertaken. Noise conditions would remain unchanged when compared to existing conditions.

3.3 AIR QUALITY

3.3.1 Affected Environment

USEPA Region 4 and MDEQ regulate air quality in Mississippi. The CAA (42 U.S.C. 7401-7671q), as amended, assigns USEPA responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) that specify acceptable concentration levels of six criteria pollutants: particulate matter (measured as both particulate matter less than 10 microns in diameter [PM_{10}] and particulate matter less than 2.5 microns in diameter [$PM_{2.5}$]), sulfur dioxide (SO_2), carbon monoxide (CO), oxides of nitrogen (NO_x), ozone (O_3), and lead. Short-term NAAQS (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. While each state has the authority to adopt standards more stringent than those established under the federal program, the State of Mississippi has accepted the federal standards.

Federal regulations designate Air Quality Control Regions (AQCRs) in violation of the NAAQS as *nonattainment* areas. Federal regulations designate AQCRs with levels below the NAAQS as *attainment* areas. Harrison County (and therefore all areas associated with the action) is in the Mobile-Pensacola-Panama City-Southern Mississippi Interstate AQCR (40 CFR 81.68). USEPA designated Harrison County as in attainment for all criteria pollutants (USEPA 2014a). USEPA monitors levels of criteria pollutants at representative sites in each region throughout Mississippi. For reference purposes, Table 3-3 shows the monitored concentrations of criteria pollutants at the monitoring location closest to Keesler AFB (USEPA 2014b).

Keesler AFB is considered a major facility for the purposes of air permitting and holds a major operating permit (#1020-00006), which expires March 31, 2015. The permit requirements include annual periodic inventory of all significant stationary sources of air emissions for each of the criteria pollutants of concern, as well as monitoring and recordkeeping requirements. Primary stationary sources of air emissions include boilers, generators, and paint booths. Table 3-4 lists Keesler AFB's 2012 facility-wide air emissions from all significant stationary sources.

Greenhouse Gases (GHGs) and Climate Change. GHGs are components of the atmosphere that trap heat relatively near the surface of the earth and contribute to the greenhouse effect and climate change. Most GHGs occur naturally in the atmosphere but increases in concentrations result from human activities, such as the burning of fossil fuels. Global temperatures are expected to continue to rise, as human activities continue to add carbon dioxide (CO_2), methane, nitrous oxide, and other GHGs to the atmosphere (USEPA 2014c and IPCC 2007).

EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance, outlines policies intended to ensure that federal agencies evaluate climate change risks and vulnerabilities and to manage the short- and long-term effects of climate change on their operations and mission. The EO specifically requires agencies within the DoD to measure, report, and reduce their GHG emissions from both their

Table 3-3. Air Quality Standards and Monitored Data

Pollutant	Air Quality Standards	Monitored Data
CO		
1-hour Maximum ^a (ppm)	35	<no data>
8-hour Maximum ^a (ppm)	9	<no data>
NO₂		
1-hour (ppb)	100	<no data>
O₃		
8-hour Maximum ^b (ppm)	0.075	0.062
SO₂		
1-hour Maximum ^a (ppb)	75	<no data>
24-hour Maximum ^a (ppb)	140	<no data>
PM_{2.5}		
24-hour Maximum ^c (µg/m ³)	35	18
Annual Arithmetic Mean ^d (µg/m ³)	15	8.8
PM₁₀		
24-hour Maximum ^a (µg/m ³)	150	<no data>

Source: 40 CFR 50.1-50.12, USEPA 2014b.

^a Not to be exceeded more than once per year

^b The 3-year average of the fourth highest daily maximum 8-hour average O₃ concentrations over each year must not exceed 0.08 ppm.

^c The 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor must not exceed 35 µg/m³.

^d The 3-year average of the weighted annual mean PM_{2.5} concentrations from must not exceed 15.0 µg/m³.

NO₂ = Nitrogen dioxide, ppm = parts per million, µg/m³ = micrograms per cubic meter

Table 3-4. Annual Emissions for Significant Stationary Sources at Keesler AFB

Pollutant	Emissions (tons/year)
Carbon monoxide (CO)	13.4
Nitrogen oxides (NO _x)	22.0
Volatile organic compounds (VOCs)	4.0
Fine particulate matter (PM _{2.5})	1.6
Fine particulate matter (PM ₁₀)	1.6
Sulfur dioxide (SO ₂)	0.4

Source: Keesler AFB 2014

direct and indirect activities. The DoD has committed to reduce GHG emissions from non-combat activities 34 percent by 2020 (DoD 2010). In addition, the CEQ released draft guidance on when and how federal agencies should consider GHG emissions and climate change in NEPA analyses. The draft guidance includes a presumptive effects threshold of 27,563 tons per year (25,000 metric tons per year) of CO₂ equivalent emissions from a federal action (CEQ 2010).

3.3.2 Environmental Consequences

Air quality would be significantly affected if implementing an alternative would threaten the air quality attainment status of the region, exceed the general conformity rule *de minimis* (of minimal importance) threshold values, exceed the GHG threshold in the draft CEQ guidance, or contribute to a violation of any federal, state, or local air regulation.

3.3.2.1 Preferred Alternative (Alternative 1)

Short-term minor adverse effects on air quality would be expected. Short-term effects would be due to generating airborne dust and other pollutants during construction. Construction emissions were estimated for fugitive dust, on- and off-road diesel equipment and vehicles, worker trips, architectural coatings, and paving off-gasses (Table 3-5). Operational emissions were primarily derived from heating of the buildings. Although the area is in attainment and the general conformity rules do not apply, the *de minimis* threshold values were carried forward to determine the level of effects under NEPA. The estimated emissions from the Preferred Alternative would be below the *de minimis* thresholds; therefore, the level of effects would be minor. Detailed emission calculations are in Appendix C.

Table 3-5. Estimated Air Emissions Compared to De Minimis Thresholds

Activity/Source	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	De Minimis Threshold [tpy]	Exceeds De Minimis Thresholds? [Yes/No]
Construction Emissions (tons per year)								
Preferred Alternative	3.2	5.7	0.9	0.6	5.1	0.7	100	No
Alternative 2 (Phase 1)	1.1	1.9	0.3	0.2	1.7	0.2	100	No
Operational Emissions (tons per year)								
Preferred Alternative	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	100	No
Alternative 2 (Phase 1)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	100	No

Notes: CO = carbon monoxide, *de minimis* = of minimal importance, NO_x = oxides of nitrogen, PM_{2.5} = particulate matter less than 2.5 microns in diameter, PM₁₀ = particulate matter less than 10 microns in diameter, SO_x = oxides of sulfur, VOC = Volatile Organic Compound

For purposes of analysis, it was assumed that all construction activities would be compressed into one 12-month period. Therefore, regardless of the ultimate implementation schedule, annual emissions would be less than those specified herein. Small changes in facilities siting and ultimate design, and moderate changes in quantity and types of equipment used would not substantially change these emission estimates, and would not change the determination under the general conformity rule or level of effects under NEPA.

Any new stationary sources of air emissions could be subject to federal and state air permitting regulations, including New Source Review, Prevention of Significant Deterioration, National Emission Standards for Hazardous Air Pollutants, or New Source Performance Standards. Any new sources of air emissions would be added to the facility's air permit. Both a new source construction permit and a modification to the existing permit could be required.

MDEQ outlines requirements with which developers must comply when constructing new facilities, such as controlling fugitive dust and open burning. All persons responsible for any operation, process, handling, transportation, or storage facility that could result in fugitive dust would take reasonable precautions to prevent such dust from becoming airborne. Reasonable precautions might include using water to control dust from building construction, road grading, or land clearing. In addition, construction would proceed in full compliance with current MDEQ requirements, with compliant practices and products. These requirements include the following:

- PM₁₀ and open burning (Miss. Code Ann. §§ 49-2-9(1)(b)).
- Smoke, odors, and fuel burning (Miss. Code Ann. §§ 49-2-9 (1)(b)).
- Surface coating and preparation (Miss. Code Ann. §§ 49-2-9 (1)(b)).

This listing is not all-inclusive; the USAF and any contractors would comply with all applicable air pollution control regulations.

GHGs and Climate Change. All construction activities combined would generate a maximum of approximately 647 tons (588 metric tons) of CO₂, which would be below the CEQ threshold. All operational activities combined would generate an annual maximum of approximately 85 tons (78 metric tons) of CO₂, which would be below the CEQ threshold. These effects would be minor.

3.3.2.2 Alternative 2

Short-term minor adverse effects on air quality would be expected. The nature of and the overall level of effects under Alternative 2 would be similar to those outlined for the Preferred Alternative (Alternative 1). Table 3-5 lists the emissions attributable to implementing the first phase (commercial gate) of Alternative 2; the total emissions would be the same as those of implementing the Preferred Alternative. The emissions would not exceed the *de minimis* thresholds or the GHG threshold in the draft CEQ guidance, and the activities would not contribute to a violation of any federal, state, or local air regulation. Detailed emission calculations are in Appendix C. All applicable regulations and BMPs would be similar to those outlined under the Preferred Alternative (Alternative 1).

3.3.2.3 No Action Alternative

Selecting the No Action Alternative would result in no effect on air quality. There would be no short- or long-term emissions changes due to the action. Ambient air-quality would remain unchanged when compared to existing conditions.

3.4 SAFETY AND OCCUPATIONAL HEALTH

3.4.1 Affected Environment

Potential safety issues at Keesler AFB include AT/FP, explosive, flight, and construction jobsite safety associated with activities conducted at Keesler AFB. Explosive safety clearances are around the munitions storage area and explosive cargo pad at the airfield (Black & Veatch 2004). The regular missions of Keesler AFB do not involve use of the explosive cargo pad, as it is only used once or twice a year, usually during a special training exercise.

Day-to-day operation and maintenance activities conducted at Keesler AFB are performed in accordance with applicable Air Force safety regulations, published Air Force Technical Orders, and standards prescribed by Air Force Occupational Safety and Health requirements. Additionally, the DoD and the Air Force have developed force protection guidelines for military installations as a result of terrorist activities. The *DoD Minimum Antiterrorism Standards for Buildings* (UFC 4-010-01) addresses access to facilities on the installation, facility siting, exterior design, interior infrastructure design, and landscaping. The *USAF Installation Force Protection Guide* provides general guidance on force protection issues.

Construction job site safety and the prevention of accidents is an ongoing activity for any Air Force job site. All contractors performing construction activities are responsible for complying with Air Force safety and Occupational Safety and Health Administration regulations and are required to conduct construction activities in a manner that does not pose any undue risk to workers or personnel. Industrial hygiene programs address exposure to hazardous materials (HAZMAT), use of personal protective equipment, and use and availability of Material Safety Data Sheets. Industrial hygiene is the responsibility of contractors, as applicable. Contractor responsibilities are to review potentially hazardous workplaces; monitor exposure to workplace chemical (e.g., asbestos, lead, HAZMAT), physical (e.g., noise propagation), and biological (e.g., infectious waste) agents; recommend and evaluate controls (e.g., ventilation, respirators); ensure personnel are properly protected or unexposed; and ensure a medical surveillance program is in place to perform occupational health physicals for those workers subject to any accidental chemical exposures or engaged in hazardous waste work.

3.4.2 Environmental Consequences

Safety and occupational health would be significantly affected if implementing an alternative would result in an increased chance that human health and safety would be endangered at the base.

3.4.2.1 Preferred Alternative (Alternative 1)

A long-term beneficial effect on safety and occupational health would be expected from implementing the Preferred Alternative. All USAF personnel and contractors would abide by applicable safety requirements, and relocating the main gate to the Division Street location would not change operational safety practices. A new AT/FP-compliant gate at Division Street would improve overall safety on the base for USAF personnel and visitors. Relieving congested traffic conditions on base and on local roads would improve safety on local roads.

3.4.2.2 Alternative 2

A long-term beneficial effect on safety and occupational health would be expected from implementing Alternative 2. The long-term effects associated with implementing Alternative 2 would be the same as those under the Preferred Alternative (Alternative 1), although they would take longer to realize.

3.4.2.3 No Action Alternative

No effects on safety and occupational health would be expected from implementing the No Action Alternative. Construction safety would not be an issue under the No Action Alternative. Workplace safety would remain unchanged. Unsafe conditions on local roads would remain unchanged and there would be no improvement in USAF and visitor safety.

3.5 EARTH RESOURCES

3.5.1 Affected Environment

Keesler AFB is within the Gulf Coast geosynclines, which are sinking troughs of delta-deposited sediments in the Gulf of Mexico (INRMP). The coastal area of Mississippi is not seismically active in recent time and is in a zero zone of seismicity. Keesler AFB is located in the Pamlico Plain, which is generally flat or gently undulating with elevations averaging from 5 to 30 feet above mean sea level (Black & Veatch 2004). The elevation of the proposed project site is 16 feet above mean sea level (FEMA 2009).

The dominant soil types at the base formed from sandy or loamy upland materials (INRMP). Most soils on the base have low erosion potential, low shrink-swell potential, and are nutrient poor. These sandy soils have good to fair drainage capacity and an estimated weight-bearing capacity of 3,000 to 5,000 pounds per square foot.

Soils specific to the proposed site are Eustis loamy sand on the northern, southwestern, and southeastern portions of the proposed site, and Harleston fine sandy loam along the drainage ditch (USDA-NRCS 2014). These soils have no frequency of flooding or ponding and have a depth to any restrictive layer of 80 inches or more. The depth to the water table on Eustis soils is more than 80 inches and 30 inches on Harleston soils. Neither of the soils is limited for the construction of dwellings without basements, but Harleston soils are very limited for the construction of dwellings with basements. Both of the soils produce low quantities of runoff. Eustis soils are not highly erosive, and Harleston soils are somewhat erosive. Harleston soils are considered prime farmland soils, and Eustis soils are considered farmland soils of statewide significance, but these classifications are not applicable to soils on military installations.

3.5.2 Environmental Consequences

Earth resources would be significantly affected if implementing an alternative would change geologic features (underlying geologic structure or topography) or result in severe soil loss or loss of soil productivity.

3.5.2.1 Preferred Alternative (Alternative 1)

Short-term minor adverse effects on soils would be expected from implementing the Preferred Alternative. No effects on geology would be expected from implementing the Preferred Alternative. Soil disturbance would occur during construction, but any excavations would be shallow and soils would be protected from erosion during construction in accordance with the terms of the Large Construction General Permit issued by the MDEQ. Stormwater runoff from construction activities (including clearing, grading, excavating, and other land disturbing activities) of 5 acres or more, or less than 5 acres if part of a "larger common plan of development or sale," must be permitted under the Large Construction General Permit. Among other requirements of the permit is a requirement to list and describe site-specific controls appropriate for the construction activities, including measures to minimize the amount of soil exposed during construction activity, minimize sediment discharges from the site, minimize soil compaction, and preserve topsoil (MDEQ 2011). No geologic features of the area or the topography of the site would be affected.

3.5.2.2 Alternative 2

The effects of implementing Alternative 2 on earth resources would be substantially the same as those discussed above for the Preferred Alternative.

3.5.2.3 No Action Alternative

No effects on earth resources would result from implementing the No Action Alternative. No soil or other ground disturbance would occur under the No Action Alternative.

3.6 WATER RESOURCES

3.6.1 Affected Environment

3.6.1.1 Climate

The climate of the Mississippi coastal region is subtropical, with mild winters and warm, moist summers. Average temperatures range from 58.9 °F in January to 81.4 °F in the summer. Average annual precipitation is 65 inches, with summer being the wettest season with an average of 6.4 inches of rainfall and autumn being the driest season with an average of 4.4 inches of rainfall. In the autumn and winter, winds are predominantly from the north, and in the spring and summer, they are predominantly from the south. Wind velocity at the base averages six miles per hour. Hurricanes (including tropical storms) affect the Biloxi area on average about once every three years during the Atlantic hurricane season, which runs from June 1 to November 30 (Hurricane City 2014). Full hurricanes (maximum sustained winds of 74 miles per hour or more) hit the Biloxi area on average about once every ten years with sustained winds averaging 103 miles per hour.

3.6.1.2 Surface Water

Several units comprise the surface water hydrology at Keesler AFB. Surface water hydrology in the interior of the base is dominated by the stormwater system (Keesler AFB 2013b). There is no central

stream that drains the base. Along the northern edge of the base, small tidal creeks provide drainage into the Back Bay of Biloxi. The proposed site is approximately one-third mile from the Back Bay of Biloxi.

Stormwater surface drainage on the main base is divided into ten drainage areas, the majority of which cover small residential or commercial areas not associated with industrial activities (Keesler AFB 2013b). The drainage areas discharge to the Back Bay of Biloxi through ten outfalls on the base. The stormwater drainage ditch on the proposed site flows east through off-base residential and commercial areas before entering a stream that flows under Interstate (I)-110 and then north into the Back Bay of Biloxi (FEMA 2009).

Stormwater runoff from construction activities (including clearing, grading, excavating and other land disturbing activities) of 5 acres or more, or less than 5 acres if part of a "larger common plan of development or sale," must be permitted under the Large Construction General Permit issued by the MDEQ.

3.6.1.3 Groundwater

Several major hydrogeological units occur in the area of Keesler AFB (Keesler AFB 2013b). These include the coastal deposits surficial aquifer, the Citronelle aquifer, and the Miocene aquifer system. Of these, the Miocene Aquifer system is the most important as it serves as the principal source of drinking water for Keesler AFB and the City of Biloxi.

3.6.1.4 Floodplains

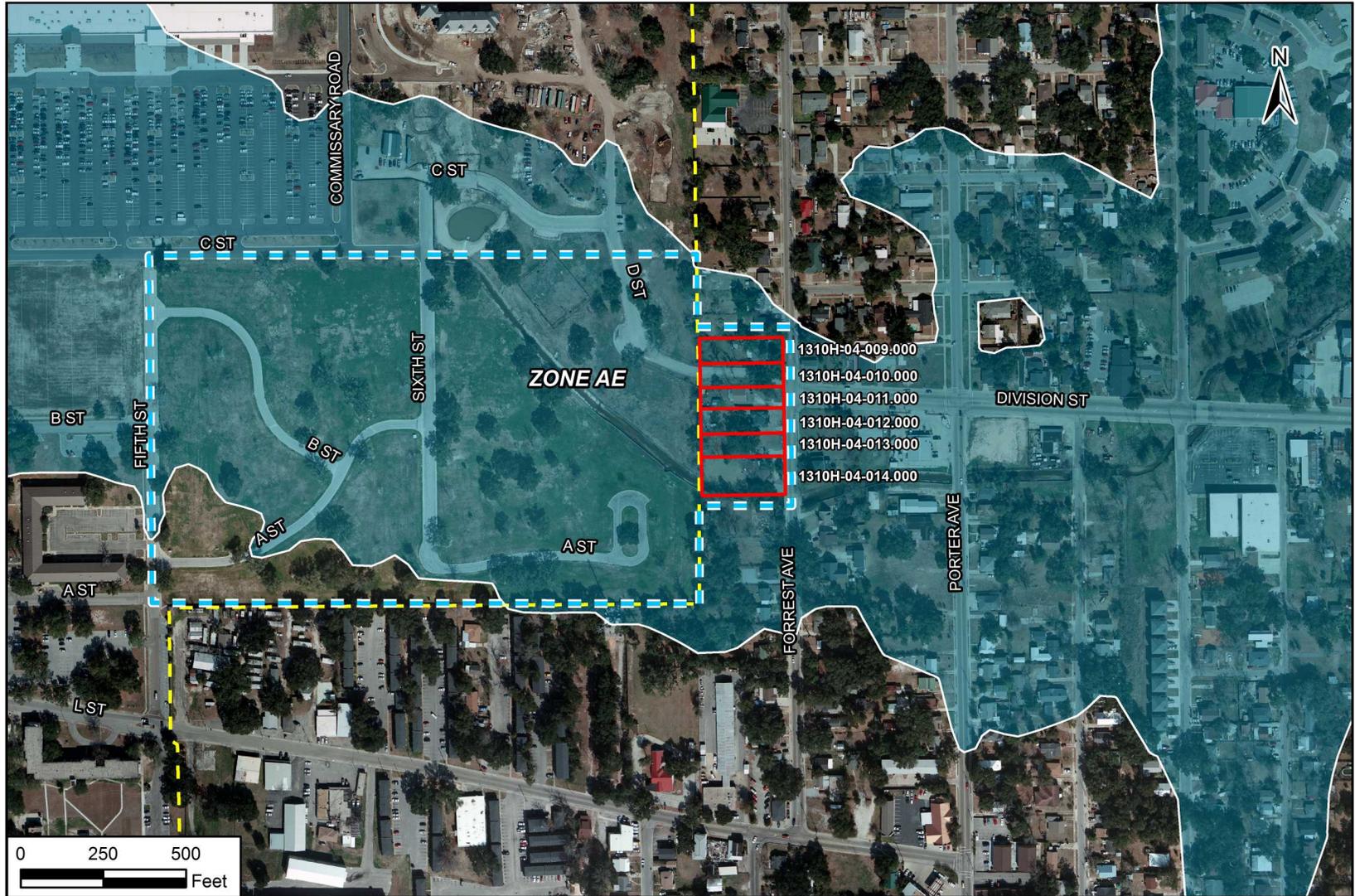
Floodplain maps issued by FEMA indicate that Division Street is entirely in a Flood Zone AE from I-110 to Forrest Avenue (Figure 3-1). Zone AE has a 1 percent annual chance of flooding, or areas subject to the 100-year flood. Zone AE at the proposed site has an elevation of 16 feet above mean sea level. Zone AE continues from Forrest Avenue onto Keesler AFB to covers most of the proposed project site. The boundary of Zone AE on the project site roughly matches the soil type boundary, with the central portion of the proposed site in Zone AE and the northern and southwestern portions in Zone X (areas with a 0.02 percent annual chance of flooding, or areas with a 1 percent annual chance of flooding but with average depths of less than 1 foot).

Storm surge—water pushed toward the shore by the force of storm winds—can increase the mean water level 25 feet or more. This can cause severe flooding in coastal areas, particularly when the storm surge coincides with normal high tides. The danger from storm surge is particularly high along the coast because Mississippi's coastline is generally less than 15 feet above mean sea level (Mississippi 2012). The Army Corps of Engineers has predicted storm-induced flood tides 12.5 feet above mean sea level and six feet above the 500-year floodplain every 100 years (Black & Veatch 2004).

EO 11988, Floodplain Management, requires federal agencies to take actions to reduce the risk of flood loss; to minimize the impact of floods on human safety, health and welfare; and to restore and preserve the natural and beneficial values served by floodplains in managing federal lands and facilities. DoD policy is that adverse impacts on floodplains are to be avoided where there is a practicable alternative, in accordance to EO 11988 (DoD 2011).

3.6.1.5 Coastal Zone Management

Keesler AFB is within the designated Mississippi coastal zone. When a federal agency conducts an activity or development project, or has an activity performed by a contractor for the benefit of the federal agency, within the boundaries of a state coastal zone, the agency must determine whether its activities are reasonably likely to affect any coastal use or resource and to conduct the activities in a manner that is



LEGEND

- - - Keesler AFB Boundary
- Residential Parcels Proposed for Acquisition (with parcel numbers)
- Approximate Boundary of Division Street Gate
- 100-Year Floodplain (Zone AE)

100-Year Floodplain

Figure 3-1

Source: KAFB GIS 2014.

consistent to the maximum extent practicable with the enforceable policies of the applicable state coastal program. The federal agency must provide a consistency determination and supporting materials to the state Coastal Zone Management Program agency at least 90 days before starting the proposed activity (unless a different arrangement has previously been made between the federal agency and the authorized state agency). An assessment of the consistency of the proposed activities with the enforceable policies of the Mississippi Coastal Program is in Appendix D.

3.6.2 Environmental Consequences

Water resources would be significantly affected if implementing an alternative would result in a change to groundwater or surface water quantity or quality, or a change in the quantity of stormwater produced. Floodplains at the base would be affected if implementing an alternative would affect the storage or flow of flood waters within a 100-year flood zone.

3.6.2.1 Preferred Alternative (Alternative 1)

Short-term minor adverse effects on surface waters would be expected from implementing the Preferred Alternative. Ground disturbance would lead to some sediment loss in stormwater runoff, which would affect the quality of surface water runoff. Implementing an erosion and sediment control plan in compliance with the MDEQ Large Construction General Permit to minimize impacts on surface waters during construction and complying with the Keesler AFB Stormwater Pollution Prevention Plan (SWPPP) for post-construction stormwater runoff would ensure that all effects on surface waters were minimized. Effects on groundwater from the increased surface area of impervious ground would be minimized by using low-impact development controls.

Long-term minor adverse effects on the floodplain would be expected from implementing the Preferred Alternative. Construction in a floodplain would inhibit some of the natural and beneficial values served by floodplains. Construction of a new gate on the site would require measures to minimize the effects of flooding on property loss, human safety, and health and welfare. Construction on the site would have to meet the minimum requirements of the National Flood Insurance Program and the requirements of Standard 24 of the American Society of Civil Engineers, *Flood Resistant Design and Construction*. The basic design requirements for structures in flood-prone areas are to have the lowest floor elevated to or above the design flood elevation and for non-residential buildings to be designed so that the building (and its attendant utility systems) are watertight below the design flood elevation, to support the building on a foundation designed and constructed to resist all anticipated flood loads, and to construct the building with flood damage resistant materials below the design flood elevation.

USAF policy is to construct no new or replacement facilities within flood-prone areas. Keesler AFB analyzed all potential locations for a new gate, however, and found that the Division Street site is the only one that would meet the purpose and need of the Proposed Action. A Finding of No Practicable Alternative (FONPA) has been prepared.

The Preferred Alternative would have no adverse effects on the resources of the Mississippi coastal zone and would be fully consistent with the Mississippi Coastal Zone Management Program. A consistency determination is in Appendix D.

3.6.2.2 Alternative 2

The effects of implementing Alternative 2 would be very similar to those discussed above of implementing the Preferred Alternative. Both phases of construction would be covered under the MDEQ Large Construction General Permit, and all facilities would be built to meet applicable codes and

regulations for construction in a flood zone. Post-construction stormwater runoff would be controlled in accordance with the Keesler AFB SWPPP.

3.6.2.3 No Action Alternative

No effects on water resources would result from implementing the No Action Alternative. No construction or soil disturbance would occur under the No Action Alternative and no facilities would be constructed in a flood zone.

3.7 INFRASTRUCTURE AND UTILITIES

3.7.1 Affected Environment

The base includes an extensive utility and transportation infrastructure that is adequate to meet current and projected future needs, though some are in need of repair or upgrades (Black & Veatch 2004). Utility systems are to be privatized in the near future. Having served as a housing area, the proposed site for the Division Street gate is adequately served by all utility systems.

3.7.1.1 Potable Water Supply System

Keesler AFB maintains its own potable water system. The principal source of drinking water for Keesler AFB and the City of Biloxi is groundwater from the Miocene Aquifer system. The system includes a network of ten active water supply wells with production capacities of 500–1,000 gallons per minute, six 400,000-gallon elevated storage tanks with a combined capacity of 2.18 million gallons, and two 50,000-gallon fire suppression system water storage tanks. Average water usage is 3 million gallons per day (mgd). The permitted combined production capability for all operable wells is 9.2 mgd, which is more than sufficient for the 6.1 mgd average daily water requirement.

3.7.1.2 Energy Systems

Natural gas is purchased from a commercial vendor and distributed through natural gas mains to most areas of the base. Keesler AFB purchases all of its electricity from Mississippi Power Company. Electricity is received from the Mississippi Power Company's 115-kilovolt (kV) transmission line south of the Keesler AFB-owned 115-kV substation and distributed via underground power lines (Black & Veatch 2004).

3.7.1.3 Central Heating and Cooling

Keesler AFB has two steam plants, the Central Heating Plant and the hospital steam plant. The system includes five central chiller plants, each with underground distribution piping to buildings served.

3.7.1.4 Communication System

The base communications systems include telephone feeder cable and fiber optic lines, cable television, and satellite communications.

3.7.1.5 Sanitary Sewer System

All wastewater from the base is discharged into Harrison County's wastewater system for treatment. The Keesler AFB wastewater collection system can accommodate a wastewater flow of approximately 3.1 mgd (Keesler AFB 2013b). The estimated total annual wastewater generation is between 700 and 800 million gallons, or approximately 2 mgd of average daily wastewater flow.

3.7.1.6 Storm Drainage System

The stormwater drainage system consists of open channels and covered drainage culverts. The system is divided into 30 discrete storm sewer basins. Most of the basins discharge to the Back Bay, Bayou LaPorte, or Keegan Bayou. Of the total base stormwater drainage, 64 percent discharges directly to the Back Bay, 27 percent drains to the Back Bay via Bayou LaPorte and Keegan Bayou, and 9 percent drains to Biloxi's storm sewer system, which empties into Mississippi Sound.

3.7.2 Environmental Consequences

Infrastructure and utilities at the base would be significantly affected by implementing an alternative if it would increase the demand for a utility service such that the capacity of the service was exceeded, or create a need for utility service where no infrastructure for it exists.

3.7.2.1 Preferred Alternative (Alternative 1)

Long-term minor adverse effects on utilities would be expected from implementing the Preferred Alternative. Construction work creates a short-term additional demand on utility services, and the additional facilities at a new Division Street gate would create a long-term additional demand for utility service at Keesler AFB. The additional demand created by the new gate would be partially offset by closure of the temporary commercial gate and the Meadows Drive gate. The net additional demand created by construction and operation of a Division Street gate would not cause an exceedance of the capacity of any utility system or service.

3.7.2.2 Alternative 2

Long-term minor adverse effects on utilities would be expected from implementing Alternative 2. The long-term effects of implementing Alternative 2 would be the same as those of implementing the Preferred Alternative.

3.7.2.3 No Action Alternative

No effects on utilities would be expected from implementing the No Action Alternative. Existing gates would continue to operate and no new demand for utility service would be created.

3.8 TRAFFIC AND TRANSPORTATION

3.8.1 Affected Environment

Transportation near Keesler AFB is achieved mainly via road and street networks and pedestrian walkways. Regional access is provided by Interstate 110 (I-110) (State Route 15). Division Street and Forrest Avenue provide direct access to the site proposed for the new Division Street gate.

The average annual daily traffic (AADT) is the average number of vehicles traveling along a roadway each day. Level of Service (LOS) is a measure of the operational conditions on a roadway or at an intersection. LOS range from A to F, with "A" representing the best operating conditions (free flow, little delay) and "F" the worst (congestion, long delays). LOS A, B, and C are typically considered good operating conditions. Table 3-6 summarizes the routes near the proposed site and in the area, their AADT, and their estimated existing LOS. Notably, some of the nearby roadways are already congested during peak traffic periods (i.e., LOS D, E, or F).

Table 3-6. Existing Traffic and LOS on Nearby Roadways and Gates

Roadway	Average Annual Daily Traffic (AADT)	One-Way Peak Hour Volume (V) [vph]	Volume to Capacity Ratio (V/C)	Estimated Existing Level of Service (LOS)
Division Street at I-110	13,000	702	0.41	D
Pass Road	9,800	529	0.31	C
Gate	Average Annual Daily Traffic (AADT)	One-Way Peak Hour Volume (V) [vph]	Maximum Queued Vehicles	Estimated Existing Level of Service (LOS)
White Street (Main) gate	4,007	721	20	D-F
Meadows Drive gate	4,177	943	50	D-F
Pass Road gate	3,118	551	10	D-F
Commercial gate	133	24	0	A-C
Total	11,435	2,239	80	

Source: MDOT 2014, ITE 2003, Gannett Fleming, 2012

Air, Rail, and Public Transportation. The closest airport is Keesler AFB (BIX), and the closest international airport is Gulfport-Biloxi International Airport (GPT) that is 9 miles away and has 201 operations per day (AirNav 2014). The closest Amtrak station is 53 miles away in Picayune. Coast Transit Authority (CTA) offers bus transportation to designated locations throughout Harrison County. The blue route travels from Gulfport to Pass Road and the Veterans Administration building near Pass Road gate. No service is offered on Sundays and the express service route for Keesler AFB operates Friday and Saturday from 10:30 a.m. to 9:25 p.m. (CTA 2014).

3.8.2 Environmental Consequences

Traffic and the transportation network would be significantly affected if implementing an alternative created appreciable changes in the overall traffic volume or permanently degraded LOS greater than two levels at an affected intersection.

3.8.2.1 Preferred Alternative (Alternative 1)

Short-term minor adverse effects and long-term beneficial effects would be expected. Short-term effects would be due to additional vehicles and day-labor traffic during construction. Long-term effects would be due to changes in traffic patterns attributable to redirecting commercial and POV traffic from the temporary commercial gate and Meadows Drive gate to the new gate. The Preferred Alternative would have no appreciable effect on air, rail, or public transportation.

Construction. Construction activities would have short-term minor adverse effects on transportation and traffic. These effects would be primarily due to worker commutes and delivery of equipment and materials to and from the project site, causing congestion and traffic delays near the construction site. In addition, road closures or detours to accommodate utility system work and creation of a new intersection at Division Street and Forrest Avenue would be expected. These effects would be temporary and end with the construction phase. The existing transportation infrastructure would be sufficient to support the increase in vehicle traffic. Although the effects would be minor, contractors would be expected to route and schedule construction vehicles to minimize conflicts with other traffic, and strategically locate staging areas to minimize traffic impacts. All construction vehicles would be equipped with backing alarms, two-way radios, and Slow Moving Vehicle signs when appropriate.

Operation. Operation of the proposed Division Street gate would not introduce additional vehicle trips to or from the base. The largest anticipated change in traffic pattern if the Preferred Alternative was implemented would be an increase in traffic on Division Street between the I-110 exit and Forrest Avenue

because most trips from the north would be expected to exit at Division Street instead of at Bayview Avenue. There would be a corresponding decrease in traffic on Bayview Avenue between I-110 and Forrest Avenue. Traffic to the White Avenue gate and congestion and traffic back-ups at the gate would be expected to decrease with the new Division Street gate serving as the main gate. Commercial traffic through the Oak Park neighborhood would cease. Traffic to the Pass Road gate would not be expected to change appreciably.

A cursory review was performed to determine the qualitative effects of these changes in traffic patterns on roadway segments in the area. Table 3-7 outlines the routes in the area and the likely changes what would result from implementing the Preferred Alternative. A quantitative traffic study would be necessary to provide a more accurate analysis of the changes that would result from implementing the Preferred Alternative.

Table 3-7. Expected Change at Nearby Roadways and Gates – Preferred Alternative

Road Segment	Expected Change
I-110 to Division Street	Increase
Bayview Avenue, I-110 to Forrest Avenue	Decrease
Beach Boulevard, Porter Avenue to White Avenue	No change
Porter Avenue, Beach Boulevard to Division Street	Increase
Gate	
Proposed Division Street gate	Increase
Meadows Drive gate	Cease
White Avenue gate	Slight decrease
Pass Road gate	No change

Although the overall effects would be beneficial because of reduced congestion at the White Avenue gate and a cessation of commercial traffic in the Oak Park neighborhood, there would be a minor adverse effect in the vicinity of the new gate. Traffic and congestion at the Meadows Drive gate would cease, but with all of the Meadows Drive gate traffic and some of the White Avenue gate traffic redirected to the new main gate at Division Street, local roadways in the vicinity of the new gate would be adversely affected. These changes combined could create three-way backups at the intersection of Division Street and Forrest Avenue during peak traffic periods. As traffic disperses, effects would lessen at roadways further from the gates and local road network.

3.8.2.2 Alternative 2

Short-term minor adverse effects and long-term beneficial effects would be expected. The nature of and the overall level of effects on traffic due to construction would be similar to those outlined in the Preferred Alternative. Long-term effects would be due to changes in traffic patterns due to the closure of the temporary commercial gate and the Meadows Drive gate. Alternative 2 would have no appreciable effect on air, rail, or public transportation. As with the Preferred Alternative, Alternative 2 would not introduce additional vehicles originating at or destined to the installation.

Initially, the new gate at Division Street would have a vehicle inspection station and would be for commercial and contractor vehicles only. All traffic entering and exiting, all congestion, and queuing associated with the temporary commercial gate would come to an end. Volume at the new Division Street commercial gate would be the same as is currently present at the temporary commercial gate. Non-commercial traffic would not be affected, and traffic volumes at the Meadows Drive, White Avenue, and

Pass Road gates would remain unchanged. The long-term effects of implementing Alternative 2 (phases 1 and 2) would be identical to those of implementing the Preferred Alternative.

3.8.2.3 No Action Alternative

Selecting the No Action Alternative would result in no effect on transportation resources. No construction would occur, and no long-term changes in transportation would take place. Traffic and transportation conditions would remain unchanged when compared to existing conditions.

3.9 HAZARDOUS AND TOXIC SUBSTANCES

3.9.1 Affected Environment

3.9.1.1 Hazardous Materials

Hazardous materials are identified and regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Occupational Safety and Health Administration; and the Emergency Planning and Community Right-to-Know Act (EPCRA). The management of hazardous materials at USAF bases is guided primarily by AFI 32-7086, *Hazardous Materials Management*, which defines hazardous materials as any substance with special characteristics which could harm people, plants, or animals. The AFI incorporates the requirements of all federal regulations, other AFIs, and DoD directives, for the reduction of hazardous material uses and purchases. The hazardous materials addressed by the instruction include procurement of ozone depleting substances and of products containing any of the chemicals listed under EPCRA, also referred to as Superfund Amendments and Reauthorization Act Title III (Keesler AFB 2013b).

No EPCRA Section 313 chemicals are used at Keesler AFB in amounts that exceed threshold levels set by USEPA and subsequently by MDEQ. Prior authorization is required before hazardous materials are brought onto the base, and contractors are only allowed to use contract-approved chemicals (Keesler AFB 2013B).

Spill prevention guidelines for petroleum, oil, and lubricant materials are detailed in the base Spill Prevention, Control, and Countermeasure Plan, and BMPs are detailed in the base's SWPPP. As of 1998, all underground and aboveground liquid fuel storage tanks not meeting current environmental requirements had been upgraded, replaced or removed (Keesler AFB 2013b).

There are no hazardous material management facilities, aboveground storage tanks or underground storage tanks on the proposed Division Street gate site.

3.9.1.2 Hazardous Waste

Hazardous waste is defined in the Resource Conservation and Recovery Act (RCRA) as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes which could or do pose a substantial hazard to human health or the environment. Waste may be classified as hazardous due to its toxicity, reactivity, ignitability, or corrosiveness. In addition, certain types of waste are "listed" or identified as hazardous in 40 CFR 263. Unless otherwise exempted by CERCLA regulations, RCRA Subtitle C (40 CFR Parts 260 through 270) regulations are administered by USEPA and are applicable to the management of hazardous waste. In the State of Mississippi, regulatory authority for hazardous waste is delegated and enforced by the MDEQ. Hazardous waste at Keesler AFB must be handled, stored, transported, disposed, or recycled in accordance with both federal and MDEQ regulations (Keesler AFB 2013b).

Keesler AFB is registered as a municipal large quantity generator of hazardous waste. The hazardous wastes generated on base include spent solvents, thinners, strippers, paint waste, laboratory chemicals, and unused materials considered as waste or products containing hazardous materials having exceeded their shelf life. Used motor oil, turbine oil, hydraulic fluid, antifreeze, batteries, and fluorescent lights that are generated on-base are transported to an off-base facility for recycling. The base has 23 satellite accumulation points. All hazardous wastes are transported to the 90-day waste accumulation site in Building 4420 for transport. Another 90-day accumulation site is maintained at Building 4304 (Keesler AFB 2013b).

There are no hazardous waste accumulation points on the proposed Division Street gate site.

3.9.1.3 Environmental Restoration

The USAF's Environmental Restoration Program (ERP) is a subcomponent of the Defense Environmental Restoration Program, which became law under the Superfund Amendments and Reauthorization Act in 1986. The ERP requires DoD installations to identify, investigate, and clean up hazardous waste disposal sites. Any land development in the area of ERP sites is discouraged until the area is given a closure indicating that the site needs no further regulatory action. If no long-term monitoring is required, then the land may be developed.

Of the 24 ERP sites at Keesler AFB identified as potentially contaminated, all but seven have been closed or eliminated from further investigation. The remaining ERP sites include LF-4 (Landfill 1), LF-2 (Landfill 2), LF-3 (Landfill 3 includes solid waste management units 3, 4, 6, 10, and area of concern E), WP-11 (etching shop and silver recovery area), ST-6 (Base Exchange Service Station abandoned UST), ST-7 (old military service station USTs), and ST-8 (Building 4038 abandoned UST). These sites are not on the Division Street gate site.

An Environmental Baseline Survey (EBS) of the six private residential properties would be prepared as required by Air Force Instruction (AFI) 32-7066, *Environmental Baseline Surveys in Real Estate Transactions* (1994). An EBS is required when the USAF gains or releases property through acquisition, lease, sale, or transfer to a party other than the USAF. The EBS provides a baseline for the USAF in making decisions concerning real property transactions.

3.9.2 Environmental Consequences

The management and use of hazardous materials or waste would be significantly affected if implementing an alternative would: (1) result in noncompliance with applicable federal and state regulations, (2) exceed established base permit quantities for hazardous materials or waste, or (3) disturb an environmental site, resulting in potential adverse effects on human health or the environment.

3.9.2.1 Preferred Alternative (Alternative 1)

Minor adverse effects would be expected from implementing the Preferred Alternative. Hazardous materials used and waste generated during construction and operation of the new gate would be minimal. Hazardous materials and waste would be handled and disposed of in accordance with local, state, and federal regulations and in accordance with established base procedures, where applicable. Vehicles used during construction activities would use petroleum, oil, and lubricants. Construction contractors would be responsible for preventing spills by implementing proper storage and handling procedures and following base procedures. No environmental restoration site is within the proposed site for a new gate, and the environmental baseline of six private residential parcels would be established prior to acquisition. Environmental issues identified in the EBS, if any, would be handled in accordance with appropriate regulations and established base procedures.

3.9.2.2 Alternative 2

The effects of implementing Alternative 2 would be the same as those of implementing the Preferred Alternative as described above. Any effects associated with construction would extend across the two construction phases, but construction contractors would still be responsible for preventing spills and following all applicable storage and handling procedures.

3.9.2.3 No Action Alternative

No effects on hazardous and toxic substances would result from implementing the No Action Alternative. Construction of the new gate would not occur.

3.10 BIOLOGICAL RESOURCES

3.10.1 Affected Environment

Natural resources management concerns associated with the proposed site are minimal. Previous use of the proposed site as a housing area left an area with little natural vegetation and very limited value to wildlife (Figure 3-2). The vegetative community type on the proposed site is primarily maintained turf grass and asphalt where roads and driveways were before the housing was removed. Scattered trees occur on the site. Live Oaks (*Quercus virginiana*) 36 inches in diameter or larger are protected on Keesler AFB. There are several Live Oaks on the proposed parcel.



Figure 3-2. Aerial View Showing Vegetation on the Proposed Site and Surroundings.

Of the state and federal protected species with the potential to occur on the base, only one, the Brown Pelican (*Pelecanus occidentalis*), has been observed on the base (Keesler AFB 2013b). None of the protected aquatic species could occur on the proposed site. The protected terrestrial species with the potential to occur on the base are either unlikely to occur on the base or could occur in coastal areas (they are aquatic or wetland associated). The Keesler AFB Integrated Natural Resources Management Plan (INRMP) (Keesler AFB 2013b) has a thorough discussion of the vegetative communities, wildlife, and protected species associated with the base.

There are no wetlands on the proposed site. All wetlands on the base occur along the Back Bay of Biloxi (Keesler AFB 2013b).

3.10.2 Environmental Consequences

Biological resources would be significantly affected if implementing an alternative would result in a change in a vegetative community or wildlife population, including threatened or endangered species.

Wetland resources would be affected if implementing an alternative would permanently reduce the quantity of wetlands or change the hydrology, vegetation, or nature of wetland soils.

3.10.2.1 Preferred Alternative (Alternative 1)

Long-term minor adverse effects on biological resources would be expected from implementing the Preferred Alternative. Although the site proposed for the Division Street gate is of little natural resources value, a few Live Oak trees on the site would likely have to be removed to construct the new gate. Removal of the trees would not affect the viability of the species or substantially reduce the local population of the trees.

Because no threatened or endangered species, sensitive habitats, or wetlands occur in the project area, there would be no impacts on these resources.

3.10.2.2 Alternative 2

The effects of Alternative 2 on biological resources would be the same as those of the Preferred Alternative.

3.10.2.3 No Action Alternative

No effects on biological resources would result from implementing the No Action Alternative.

3.11 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

3.11.1 Affected Environment

3.11.1.1 Historic Resources

In 1988 Keesler cultural resources personnel worked with MDAH to identify and document buildings and sites on the base with potential historical and cultural significance (ICRMP). The Keesler Cold War-Era Buildings and Structures Inventory and Assessment was completed in December 2003 and provided an inventory of all buildings built between 1945 and 1991. There are no standing buildings on the proposed parcel. All buildings (housing units) were removed after Hurricane Katrina. No historical properties or historic districts are within the footprint of the proposed gate or 300 feet (the radius of buffers surrounding historic properties) of the proposed gate location. One historical property is on Forrest Avenue just south of F Street, approximately 1,000 feet north of the proposed site. An historic district lies approximately 1,250 feet east of the intersection of Division Street and Forrest Avenue, which is well outside the proposed area of potential effect of the proposed project (Geoportal 2015). MDAH has indicated that the area under consideration for the Division Street gate may represent part of a potential historic district (see Appendix A).

3.11.1.2 Archeological Resources

The Center for Archeological Research at the University of Mississippi was contracted by the National Park Service in August 1993 to conduct a baseline archeological survey for the base (ICRMP). Because of the extensive land disturbance that had occurred over most of the base, the study concluded that there is very little likelihood that any archeological deposits remain on Keesler AFB and stated that the rest of the base could be considered free of archaeological resources (Black & Veatch 2004). Therefore, no further archeological surveys on the base are needed. The report was submitted to the Mississippi Department of Archives and History and no objections to the conclusions were received.

3.11.1.3 Native American Concerns

There are no known prehistoric or historic Native American Indian sites on Keesler AFB (Keesler AFB 2013a). Keesler AFB contacted four Native American tribes during preparation of the Integrated Cultural Resources Management Plan (ICRMP) (Keesler AFB 2013a) to meet the intent of the Native American Indian Religious Freedom Act of 1978 and the Native American Graves Protection and Repatriation Act of 1990 to see whether further consultation was required. Based on the responses from the tribes, Keesler AFB will contact the tribes in the event of any discoveries and will consult the tribes for any significant ground-disturbing developments. This contact would normally occur during the NEPA process. There are no known Native American Sacred Sites on Keesler AFB (Keesler AFB 2013a).

3.11.2 Environmental Consequences

Cultural resources would be significantly affected if implementing an alternative would result in any loss or destruction of the current or future integrity of an archaeological resource, historical resource, or Native American site.

3.11.2.1 Preferred Alternative (Alternative 1)

An adverse effect on cultural resources would be expected from implementing the Preferred Alternative. Keesler AFB contacted MDAH regarding any potential cultural significance of the residences that would be acquired as part of the project. MDAH responded that the houses in the neighborhood, taken together, form a potentially eligible historic district, and that removing some of them would be a loss of and adverse effect on cultural resources. MDAH requested that the Air Force provide documentation (photographs, history, and floor plans) of the houses at HABS III standards with digital photography and a history of the houses and neighborhood as acceptable mitigation for their demolition. The historian performing the documentation would consult the HABS guidelines to be sure the photographs are correctly named and referenced and provide details (information on elevation, the room in each picture, etc.) in the documentation. MDAH and the Air Force would sign a memorandum of agreement describing the documentation requirements to formalize the agreement.

The proposed Division Street gate site has no known cultural resources. In accordance with the ICRMP contingency plan for archaeological discoveries, if an historical, archaeological, or Native American resource was discovered during excavation or construction work, activity in the area would cease immediately and a reasonable effort would be made to protect the discovered items. The construction manager would contact the base civil engineer and the Keesler AFB cultural resources manager, who would in turn contact the State Historic Preservation Office and the Native American Tribes known to have an historical connection to the base land, as well as other appropriate persons and agencies (Keesler AFB 2013a).

3.11.2.2 Alternative 2

The effects of implementing Alternative 2 would be the same as those of implementing the Preferred Alternative. Consultation with MDAH and mitigation of any adverse effect on an historic district would be undertaken, and the same precautions would be taken in the event of an inadvertent discovery.

3.11.2.3 No Action Alternative

No effects on cultural resources would result from implementing the No Action Alternative. The No Action Alternative would not involve ground disturbance, and there would not, therefore, be any chance of a disturbance of an historic, archaeological, or Native American resource.

3.12 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND PROTECTION OF CHILDREN

3.12.1 Affected Environment

This section describes the economy and the sociological environment of the region of influence surrounding Keesler AFB. A region of influence is a geographic area selected as a basis on which social and economic impacts of project alternatives are analyzed. The region of influence for the social and economic environment is defined as Harrison County, Mississippi. For comparative purposes, socioeconomic data also is presented for the state of Mississippi and the United States.

Keesler AFB is on the Mississippi Gulf Coast in Harrison County in the boundaries of the City of Biloxi, a popular tourist destination area that has beaches, golf courses, casinos, and fishing. Economic and population growth in Mississippi's coastal counties was impacted in 2005 by Hurricane Katrina. It has taken almost 10 years for Harrison County to regain its population. Damage to coastal lowlands, revised Flood Insurance Rate Map zones, and lack of affordable wind insurance have influenced redevelopment patterns (Keesler AFB 2013).

3.12.1.1 Population

Harrison County's population was 196,500 in 2013, an increase of 4 percent since 2000, similar to Mississippi's population growth of 5 percent during the same time period (2000 – 2013). The United States' population grew by 12 percent between 2000 and 2013 (U.S. Census Bureau 2000, 2014a).

3.12.1.2 Employment

Harrison County labor force and unemployment trends between 2003 and 2013 are similar to the state, with increasing unemployment rate and declining labor force. The county's labor force decreased six percent between 2003 and 2013; Mississippi's labor force declined by two percent during that same time period, while United States labor force grew by six percent. The county's annual unemployment rate was 5 percent in 2003 compared to almost 8 percent in 2013; Mississippi's was 6.5 percent in 2003 and 8.5 percent in 2013. The national unemployment rate was 6 percent in 2003 and about 7 percent in 2013 (BLS 2014).

The leading Harrison County industries (on the basis of earnings by industry) were government and government enterprises (including federal civilian, military, and state and local government); accommodation and food services; health care and social assistance; and retail trade. Together these four industry sectors accounted for about 60 percent of the county's total industry earnings. The government and government enterprises sector (which includes Keesler AFB) was the largest sector, accounting for 35 percent of the county's industry earnings (BEA 2014). Keesler AFB contributes significantly to the regional economy through employment and purchases from local businesses. The strong accommodation, food services, and retail industry sectors reflect the region's popularity as a tourist destination.

3.12.1.3 Income

Harrison County income levels were higher than the state's but lower than the nation's. The county's per capita personal income was \$23,378. This per capita income was 113 percent of the Mississippi per capita personal income of \$20,670, but 83 percent of the national per capita personal income of \$28,051. The county's median household income of \$43,593 was 112 percent of the Mississippi median household income of \$38,882 but 82 percent of the national median household income of \$53,046 (U.S. Census Bureau 2014a).

3.12.1.4 Environmental Justice

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, was issued by President Clinton on February 11, 1994. The EO requires that federal agencies take into consideration disproportionately high and adverse environmental effects of governmental decisions, policies, projects, and programs on minority and low-income populations.

Per CEQ guidance, minority populations should be identified where either the minority population of the affected area exceeds 50 percent or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). The U.S. Census Bureau identifies minority populations as Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander; persons of two or more races; and persons of Hispanic or Latino origin. Minority population data is presented in Table 3-8. Harrison County's minority population rate of 33 percent was lower compared to the state and the nation, which are at 42 percent 36 percent, respectively. The minority population of the Census tracts that would be affected by the Proposed Action (which are the Keesler AFB Census Tract 9 and the adjacent Census Tract 39 to the east of Keesler AFB, listed in Table 3-8) are comparable to that of the county, state, and nation.

Table 3-8. Minority and Low-income Populations

Jurisdiction	Minority population, 2013	Persons below poverty level, 2008-2012 average
Census Tract 9 (Keesler AFB)	35%	19%
Census Tract 39 (East of Keesler AFB)	39%	31%
Harrison County	34%	18%
Mississippi	43%	22%
United States	37%	15%

Source: US Census Bureau 2014a,c.

Per CEQ guidance, poverty thresholds established by the U.S. Census Bureau are used to identify low-income populations (CEQ 1997). Poverty status is reported as the number of persons or families with income below a defined threshold level. As of 2013, the U.S. Census Bureau defined the poverty threshold level as \$11,892 of annual income, or less, for an individual and \$23,836 of annual income, or less, for a family of four (U.S. Census Bureau 2014b). Poverty data is presented in Table 3-8. Harrison County's poverty rate of 18 percent is comparable to that of the state and the nation, falling between the state and national poverty rates of 22 percent and 15 percent, respectively. The poverty rate for Census Tract 39 to the east of Keesler AFB has a poverty rate of about 30 percent. Census Tract 39 to the east of Keesler AFB would be directly affected by the Proposed Action as six privately owned residential properties in this tract adjacent to Keesler AFB would need to be acquired to accommodate the proposed new gate, and traffic patterns would be modified in this area. Improvements would be required along Division Street and the I-110 entrance and exit ramps that tie in to Division Street (Black & Veatch 2004). Census Tract 39 is a primarily a residential neighborhood with a mix of commercial businesses, office or service businesses, and vacant lots or buildings along Division Street. Division Street is designated as a minor arterial street (meaning it has higher traffic volumes than local streets, carries traffic between important activity or population centers, and supports passenger and commercial traffic) with private residences, commercial businesses, and vacant lots along the street (City of Biloxi 2008).

Protection of Children. On April 21, 1997, President Clinton issued EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. This EO seeks to protect children from disproportionately incurring environmental health or safety risks. The EO recognizes that a growing body

of scientific knowledge demonstrates that children might suffer disproportionately from environmental health and safety risks. These risks arise because children’s bodily systems are not fully developed; children eat, drink, and breathe more in proportion to their body weight; because their size and weight can diminish protection from standard safety features; and because their behavior patterns can make them more susceptible to accidents. On the basis of these factors, President Clinton directed each federal agency to make it a high priority to identify and assess environmental health risks and safety risks that might disproportionately affect children. President Clinton also directed each federal agency to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health or safety risks.

Keesler AFB will fully comply with EO 13045 by incorporating these concerns in decision-making processes supporting Keesler AFB policies, programs, projects, and activities. In this regard, Keesler AFB ensures that it would identify, disclose, and respond to potential adverse social and environmental effects on children in the area affected by a Proposed Action. Children are present at Keesler AFB as residents and visitors (e.g., residing in on-base family housing or lodging, using recreational facilities, attending events) and in the neighboring residential communities. Precaution is taken for child safety through using fencing, limiting access to certain areas, installing proper signage, and requiring adult supervision.

3.12.2 Environmental Consequences

Socioeconomics resources would be significantly affected if implementing an alternative would result in: (1) substantial gains or losses in population or employment; (2) disequilibrium in the housing market such as severe housing shortages or surpluses; (3) disproportionately high and adverse environmental or human health impacts to an identified minority or low-income population, which appreciably exceed those to the general population around the project area; (4) disproportionately high and adverse environmental health or safety risks to an identified population of children, such as the increase in a child’s risk of exposure to an environmental hazard (through contact, ingestion, or inhalation) or the risk of potential substantial harm to the safety of children during construction or operation activities.

3.12.2.1 Preferred Alternative (Alternative 1)

Population, Employment, and Income. Short-term minor beneficial effects would be expected on the regional economy. The expenditures and employment associated with the proposed action would increase regional employment, income, and sales volume in the local construction industry and related industries. The economic benefits would be short-term, lasting for the duration of the build-out period. No effects would be expected on population; the action would not change the population of Keesler AFB or the region.

Environmental Justice. Long-term adverse effects on environmental justice would be expected. The Preferred Alternative would require road improvements and alterations to traffic flow resulting in an increase in traffic on Division Street, which would be an adverse effect on residents, and the acquisition of up to six private properties along Forrest Avenue in the adjacent neighborhood, requiring that residents of those properties find new housing. This neighborhood is in Census Tract 39, which has a higher proportion of persons living below the poverty threshold compared to the county, state, and nation (Table 3-8). The owners of the parcels acquired would be compensated monetarily for their properties.

Protection of Children. Short-term minor adverse effects on the protection of children could occur. The construction would be next to a residential area. In the short-term, because construction sites can be enticing to children, construction activity could be an increased safety risk. Therefore, during construction, appropriate safety measures would be implemented and health regulations would be followed to protect the safety and health of citizens. Construction contractors would be responsible for

complying with Air Force, Occupational Safety and Health Administration, and local regulations. Barriers and “no trespassing” signs could be placed around the perimeter of construction sites to deter children from playing in these areas, and construction vehicles and equipment would be secured when not in use. These measures would reduce the risk of potential harm to children. The Division Street entrance would have appropriate safety measures incorporated into its design, including sidewalks, crosswalks/crosswalk signals, and an appropriate speed limit for on-base traffic. The Preferred Alternative would not pose a long-term safety risk.

3.12.2.2 Alternative 2

Population, Employment, and Income. Short-term minor beneficial economic effects would be expected if Alternative 2 was implemented. The effects would be the same as the effects of implementing the Preferred Alternative.

Environmental Justice. The environmental justice effects of implementing Alternative 2 would be the same as those for the Preferred Alternative.

Protection of Children. The effects on children of implementing Alternative 2 would be the same as those for the Preferred Alternative.

3.12.2.3 No Action Alternative

Population, Employment, and Income. No effects would be expected. There would be no change in the region’s business sales, income, employment, or population as a result of implementing the no action alternative.

Environmental Justice. No effects would be expected. The No Action Alternative would not result in disproportionate adverse environmental or health effects on low-income or minority populations or children.

Protection of Children. No effects would be expected. The No Action Alternative would not result in disproportionate adverse environmental or health effects on children.

3.13 LAND USE AND AESTHETICS AND VISUAL RESOURCES

3.13.1 Affected Environment

3.13.1.1 On-base

The Keesler AFB’s 2030 *General Plan* (Black & Veatch 2004) provides the base a framework for long-range development decisions and defines the typical types of facilities and land uses on the base in to 14 land use categories: airfield, airfield pavements, aircraft operations and maintenance, technical training, industrial, administrative, community–commercial, community–service, medical, housing–accompanied, housing–unaccompanied, outdoor recreation, open space, and water.

The on-base portion of the proposed project area was designated as accompanied housing land use; however, a substantial portion of this housing was destroyed by Hurricane Katrina. The site has been cleared of housing and other community support buildings and is now a maintained open space of green lawn and some mature trees. A channelized canal with a chain-link fence runs across the eastern portion of the site. Views from the site to the east and south are of the installation fence line and mixed use residential and commercial areas; to the west and northwest is on base community commercial and service buildings (such as the Base Exchange and Commissary); and to the north is on base open space

(formerly accompanied housing, now maintained lawn and with some mature trees) and outdoor recreation area. Existing and proposed future land use of the on-base project area is identified as open space and outdoor recreation, with bordering land uses of open space, outdoor recreation, community commercial and service, and unaccompanied housing (AETC 2006).

3.13.1.2 Off-base

Keesler AFB is bordered on the east, south, and west by the City of Biloxi and on the north by the Back Bay of Biloxi. Prior to Hurricane Katrina, land use in the vicinity of Keesler AFB was primarily residential, with commercial, public, and semi-public parcels. Major commercial and industrial areas located several miles east of the base consisted of boat manufacturers and seafood operations. Commercial areas in the vicinity of the base included restaurants, a shopping mall, casinos and resort hotels, a fuel terminal, various government buildings, and several small-craft harbors. Much of these areas were extensively damaged during Hurricane Katrina. Growth patterns indicate that the areas are being rebuilt in a similar land use pattern (Keesler AFB 2013).

The off-base portion of the proposed project area is six privately owned lots along Forrest Avenue that would need to be acquired to accommodate the proposed new gate. Land use and zoning of these properties is single-family residential. The lots are in a neighborhood bordering Keesler AFB to the east with land use and zoning that is primarily residential but with a mix of residential, commercial businesses, and office or service businesses land use and zoning along Division Street (City of Biloxi 2008). The neighborhood is characterized by wide streets bordered by sidewalks, mature trees, visible power lines, one-story single family homes, a few vacant lots, a church, and businesses, including a grocery store, convenience store, gas station, restaurant, and health center.

3.13.2 Environmental Consequences

Land-use would be significantly affected by implementing an alternative if it would conflict with an approved land-use plan, policy, or control; conflict with established land uses in the area; or disrupt or divide established land-use configurations or communities.

3.13.2.1 Preferred Alternative (Alternative 1)

Long-term minor adverse effects on aesthetics would be expected. The entrance area of the Division Street gate would be adjacent to residential housing, replacing several homes along Forrest Avenue with an entry road. The entry point would be designed with a buffer area of land between the new road and existing homes. Physical barriers (fencing that would be aesthetically suitable for a residential area, such as the black fencing that currently borders Keesler AFB from the properties along Forrest Avenue), and screening vegetation (such as grasses, bushes, trees) would be used along the periphery where the new entrance road would border off-post residences. The entry road would be adjacent to the off-post houses but bordered by screening vegetation, and the entry gate facilities would be on the base so as not to be in alignment with the houses, but would be west of the houses.

No adverse effects to on- or off-base land use would be expected. Private residential properties would be acquired by Keesler AFB, which would change the land use and zoning from residential to federal government property, but no land use incompatibility would be created. Residential land uses already border, and would continue to border, Keesler AFB. The new gate facility would be compatible with surrounding land uses. The proposed project area is open space that was previously developed. The site is adjacent to open space and community commercial and service land uses. The new main gate and associated visitor center would provide efficient access to on base community, administrative, and medical facilities.

3.13.2.2 Alternative 2

The effects of implementing Alternative 2 on aesthetics and land use would be the same as those for the Preferred Alternative.

3.13.2.3 No Action Alternative

No adverse effects on land use would result from implementing the No Action Alternative. There would be no change in land use or visual resources on- or off-base.

3.14 SUSTAINABILITY AND GREENING

3.14.1 Affected Environment

Federal regulations and EOs require federal agencies to incorporate sustainability and greening practices into construction projects. EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, requires that federal agencies incorporate sustainability and greening practices into construction projects—as well as other water-, energy-, and transportation-related activities—by minimizing waste, recycling appropriate materials, and purchasing items produced from recycled materials. EO 13514, *Federal Leadership in Environmental, Energy and Economic Performance*, includes requirements for GHG emissions, water use reduction, waste diversion, sustainable buildings, environmental management, and electronics stewardship.

3.14.2 Environmental Consequences

Sustainability and greening would be significantly affected if implementing an action would reduce the sustainability of resources, ecosystems, or human communities.

3.14.2.1 Preferred Alternative (Alternative 1)

Minor adverse and beneficial effects on sustainability and greening would be expected from implementing the Preferred Alternative. Constructing a Division Street gate would require the use of natural resources and the disposal of construction debris, and some open space would be converted impervious ground. In accordance with EO 13423, however, the Air Force would incorporate sustainability and greening practices by minimizing waste during construction, recycling appropriate materials, and purchasing items produced from recycled materials. In accordance with EO 13514, where possible the Air Force would incorporate sustainable building and greenhouse-gas-reducing concepts into the engineering design process.

The facilities at the Divisions Street gate would meet the LEED Silver standard designation and would meet or exceed the intent of EO 13514 and EO 13423, and would meet or exceed the requirements of the Energy Policy Act 2005 and the Energy Independence and Security Act of 2007. To the extent possible, the construction project would be implemented using sustainable design concepts. Keesler AFB would incorporate the requirements for Energy Star-rated products and green products in accordance with EO 13423 into the specifications of the project.

3.14.2.2 Alternative 2

Minor beneficial effects on sustainability and greening would be expected from implementing Alternative 2. The effects would be the same as those from implementing the Preferred Alternative.

3.14.2.3 No Action Alternative

No effects on sustainability and greening would result from implementing the No Action Alternative.

3.15 RECREATIONAL USE AND RESOURCES

3.15.1 Affected Environment

Keesler AFB has three major outdoor recreation areas: a 25-acre outdoor recreation area with marina bordered by the runway and the Back Bay, the 18-hole Bay Breeze Golf Course bordering the south end of the runway, and a recreational vehicle family camp in Thrower Park (Black & Veatch 2004). Tennis courts are near the Meadows Drive gate and some ball fields are near the north end of the runway.

3.15.2 Environmental Consequences

Recreational use and resources would be significantly affected if implementing an alternative reduced the availability of a recreational resource or reduced access to a recreational resource.

3.15.2.1 Preferred Alternative (Alternative 1)

No effects or minor beneficial effects on recreational resources would be expected from implementing the Preferred Alternative. Constructing the Division Street gate would not affect any existing recreational resources on Keesler AFB. Some of the space on the proposed site could be used for recreational space, which if implemented would be a minor beneficial effect.

3.15.2.2 Alternative 2

The effects of implementing Alternative 2 on recreational resources would be the same as those for the Preferred Alternative.

3.15.2.3 No Action Alternative

No effects on recreational resources would result from implementing the No Action Alternative.

4.0 CUMULATIVE EFFECTS

CEQ defines indirect and cumulative effects as the impact on the environment that results from the incremental impact of the action when added to past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions (40 CFR 1508.7). Cumulative impacts can result from individually insignificant but collectively significant actions taking place over a period of time.

Keesler AFB has identified the following projects, In addition to the Division Street gate construction project, that could occur on the base within a similar time frame as the Division Street gate project:

- Visiting quarters – Construct a five-story, 160,000-square-foot, 320-room visiting quarters to include laundries, lobby, and housekeeping areas.
- Permanent Party dormitory – Construct an 11,100-square-foot facility to house 144 permanent party personnel. The dormitory would be constructed in two phases.
- Student Center - Construct a 69,900-square-foot student center to include a fitness center, indoor pool, and recreation center to support non-prior service trainees. The project would include demolishing an existing pool, recreation center, and the Triangle Fitness Center.

Construction projects such as these would affect resource areas in a manner and magnitude similar to the Division Street gate project and would, therefore, contribute to cumulative effects on the resource areas.

4.1 PREFERRED ALTERNATIVE (ALTERNATIVE 1)

Short-term minor cumulative effects would be expected from implementing the Preferred Alternative. Cumulative effects could be expected on the following resource areas:

4.1.1 Noise

Short-term minor adverse cumulative effects on the noise environment could result. Noise associated with individual construction projects would be relatively high at distances of 400 to 800 feet from the site of major equipment operations. Any sensitive receptors within any area of overlap of the zones of high noise from two or more construction projects would experience relatively higher or more frequent noise levels than from a single construction project. Simultaneous construction projects would also each contribute to traffic noise on local roads. Because construction noise is short-term and intermittent, the potential cumulative effects on the noise environment would be minor.

4.1.2 Air Quality

Short-term minor adverse cumulative effects on air quality would be expected. The combined emissions from multiple pieces of construction equipment at multiple construction projects would affect air quality more than any one of the projects alone. The State of Mississippi takes into account the effects of all past, present, and reasonably foreseeable emissions during the development of the State Implementation Plan. The state accounts for all significant stationary, area, and mobile emission sources in the development of this plan. Estimated emissions generated by the action would be *de minimis* and it is understood that activities of this limited size and nature would not contribute significantly to adverse cumulative effects to air quality.

4.1.3 Earth Resources (Soils)

No cumulative effects on earth resources would be expected. Individual construction projects would cause ground and soil disturbance at the construction site only, but cumulatively each construction project, particularly those on previously undisturbed areas, alters natural soils and can convert previously permeable ground into impermeable surfaces. Because of the highly developed nature of Keesler AFB, most soils have been previously disturbed. Natural soils are present only along the Back Bay, and the construction projects above would not affect areas of natural soils.

4.1.4 Water Resources (Surface Waters and Floodplains)

Short-term minor adverse cumulative effects on water resources would be expected. Individual construction projects would cause soil disturbance that would contribute sediment to stormwater runoff, and any spillage of petroleum, oils, lubricants, or other hazardous materials at construction sites would likely contaminate stormwater runoff. Most stormwater at Keesler AFB drains to the Back Bay, so simultaneous construction projects would be expected to have cumulative effects on surface water quality. Stormwater runoff and spills and leakage from equipment at each project during construction would be controlled through implementation of BMPs in accordance with the Large Construction General Permit, and post-construction runoff from each new development would be controlled in accordance with the SWPPP. Cumulative effects on surface waters, therefore, would be minor.

4.1.5 Infrastructure and Utilities

Short-term minor adverse and long-term minor cumulative effects on infrastructure and utilities would be expected. Each construction project creates a net effect on utility demand through the use of utilities during construction, the creation of new demand after construction, and a reduction in demand if old facilities are taken off line and demolished as part of the project. The overall cumulative net effect of multiple construction projects would be minor adverse in the short-term because each project would create a short-term demand for utilities during construction. Whether the cumulative long-term effect would be beneficial or adverse cannot be determined, but would be minor because the Air Force would build each new structure to meet LEED Silver standards and to comply with federal sustainability goals and criteria. The removal of old, outdated structures with energy-inefficient systems and their replacement with new, energy-efficient systems would be expected to have a beneficial long-term cumulative effect.

4.1.6 Traffic and Transportation

Short-term minor adverse cumulative effects on traffic and transportation would be expected, primarily because of the construction traffic generated on base and on local roads. No projects foreseen to be undertaken at Keesler AFB would increase or decrease the average daily population at the base, so no long-term cumulative effects on traffic and transportation would be expected.

4.1.7 Hazardous and Toxic Substances

Short-term minor adverse cumulative effects on hazardous and toxic substances would be expected. Construction projects involve the use of hazardous and toxic substances, and small quantities are released to the environment. Implementing BMPs to control their release and to ensure that any spills or leaks are expeditiously cleaned up would minimize the cumulative effects on the environment. All applicable regulations for hazardous and toxic substance storage, use, transport, and disposal would be adhered to during all construction projects.

4.1.8 Cultural Resources

Because the houses that would be demolished contribute to an historic district, then the project could pose a long-term adverse effect on the historic district. The adverse effect would be mitigated by the Air Force documenting the houses with photographs, a descriptive history, and floor plans at HABS III standards, which would serve as acceptable mitigation for their demolition. MDAH and the Air Force would sign a memorandum of agreement describing the documentation requirements to formalize the agreement. Removal of the houses and construction of a secure, modern gate facility would nevertheless represent a long-term change to the character of the area.

4.1.9 Socioeconomics

Short-term minor beneficial cumulative effects on socioeconomics would be expected. Individual construction project would each contribute in a minor way to the economy of the region. Regional economic development projects would also have beneficial effects on the local economy by increasing employment, income, and business sales volume. No cumulative effects on environmental justice or the protection of children would be expected.

4.1.10 Aesthetics

Short-term minor adverse and beneficial cumulative effects on aesthetics would be expected. Construction projects are inherently visually unappealing, but the adverse aesthetic effects of construction projects disappear once a construction project has been completed and an area has been revegetated and landscaped. The removal of old, run-down facilities and their replacement with modern facilities or the return of areas to natural vegetation generally has a beneficial aesthetic effect on an area.

4.2 ALTERNATIVE 2

The cumulative effects that would result from implementing Alternative 2 would be the same as those for the Preferred Alternative.

4.3 NO ACTION ALTERNATIVE

No cumulative effects would result from implementing the No Action Alternative.

4.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The irreversible environmental changes that would result from implementation of the proposed action involve the consumption of material resources, energy resources, land, biological habitat, and human resources. The use of these resources is considered to be permanent. Irretrievable uses of materials and energy would occur as a result of construction, facility operation, and maintenance activities. The irretrievable loss of energy, labor, materials, and funds associated with implementation of the proposed action would be inconsequential to the amount of these resources currently available and being consumed. None of the materials that would be consumed are in short supply, would not limit other unrelated construction activities, and would not be considered significant. Sustainable materials would be used where possible.

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APPENDIX A

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) Letters and Responses

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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Mr. Stephen Ricks
Field Supervisor
Jackson Field Office
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway
Jackson, MS 39213

Dear Mr. Ricks,

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Sincerely


TASHA R. GOLSON, GS-13, DAF
Performance Management Chief
81st Infrastructure Support Division

Attachment:
Description of Proposed Action and Alternatives



**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Mississippi Department of Marine Resources
1141 Bayview Avenue, Suite 101
Biloxi, MS 39530

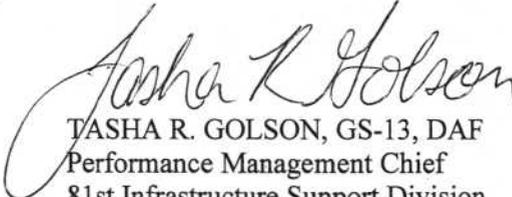
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Performance Management Chief
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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Mississippi Department of Archives and History
William F. Winter Archives and History Building
200 North Street
Jackson, MS 39201

Dear Sir/Ma'am,

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Performance Management Chief
81st Infrastructure Support Division

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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Mississippi Department of Environmental Quality
Office of Pollution Control
Environmental Enforcement & Compliance Division
P. O. Box 2261
Jackson, MS 39225

Dear Sir/Ma'am,

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Performance Management Chief
81st Infrastructure Support Division

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Description of Proposed Action and Alternatives



**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

City of Biloxi
City Planner's Office
P. O. Box 508
Biloxi, MS 39533-0508

Dear Sir/Ma'am,

Keesler Air Force Base, Mississippi (Keesler AFB) is preparing an Environmental Assessment (EA) for the Construction and Operation of a Division Street Gate at Keesler AFB. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 United States Code 4321-4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500-1508), and 32 CFR Part 989, *et seq.*, the EA provides details on the Proposed Action and summarizes the potential consequences to human health and the natural environment of implementing the Preferred Alternative, Alternative 2, and the No Action Alternative.

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TASHA R. GOLSON, GS-13, DAF
Performance Management Chief
81st Infrastructure Support Division

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Description of Proposed Action and Alternatives



**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Harrison County Utility Authority
10271 Express Drive
Gulfport, MS 39530

Dear Sir/Ma'am,

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TASHA R. GOLSON, GS-13, DAF
Performance Management Chief
81st Infrastructure Support Division

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Description of Proposed Action and Alternatives



**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Harrison County Judicial 2
730 Dr. Martin Luther King, Jr. Blvd
Biloxi, MS 39530

Dear Sir/Ma'am,

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Performance Management Chief
81st Infrastructure Support Division

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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Gulf Regional Planning Commission
1635 Poppo Ferry Road, Suite G
Biloxi, MS 39532

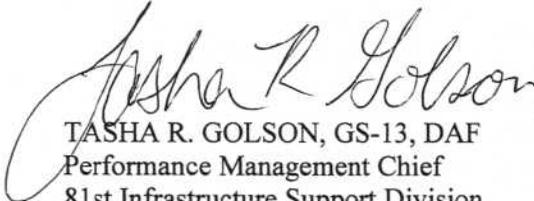
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TASHA R. GOLSON, GS-13, DAF
Performance Management Chief
81st Infrastructure Support Division

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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Southern Mississippi Planning & Development
9229 U. S. Highway 49
Gulfport, MS 39503

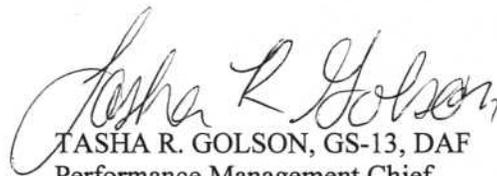
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Performance Management Chief
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AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Jena Band of Choctaw Indians
1052 Chinaha Hina Street
Trout, LA 71371-3043

Dear Sir/Ma'am,

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Performance Management Chief
81st Infrastructure Support Division

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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Choctaw Nation of Oklahoma
P. O. Drawer 1210
Durant, Oklahoma 74702

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Performance Management Chief
81st Infrastructure Support Division

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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Mississippi Band of Choctaw Indians
P. O. Box 6257
Choctaw, MS 39350

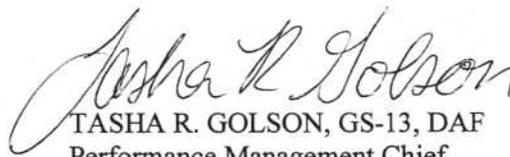
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TASHA R. GOLSON, GS-13, DAF
Performance Management Chief
81st Infrastructure Support Division

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**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

26 January 2015

Tasha Golson
81 ID/IDP
500 Fisher Street, Bldg. 701
Keesler Air Force Base, MS 39534

Tunica-Biloxi Tribe
151 Melacon Drive
Marksville, LA 71351

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Sincerely

A handwritten signature in cursive script that reads "Tasha R. Golson".

TASHA R. GOLSON, GS-13, DAF
Performance Management Chief
81st Infrastructure Support Division

Attachment:
Description of Proposed Action and Alternatives

FW consultation with Keesler AFB.txt

From: LANIER, JANET L CTR USAF AETC BOS/CEV <janet.lanier.ctr@us.af.mil>
Sent: Wednesday, March 11, 2015 2:06 PM
To: Pett, Sam; HOLLAND, ROBIN CTR USAF AETC BOS/CEV
Subject: FW: consultation with Keesler AFB

FYI Division Street Gate files

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

From: Paul Necaie [mailto:paul_necaie@fws.gov]
Sent: Wednesday, March 11, 2015 1:02 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Subject: RE: consultation with Keesler AFB

Janet,

The Service has reviewed the letter submitted in your email below. The Service does not anticipate impacts to our trust resources, including threatened or endangered species, or designated critical habitat areas as a result of the proposed development since the area does not contain suitable habitat to support these resources or federally listed species. If you have any questions, you may contact me at the telephone number listed below.

Paul Necaie
Coastal Biologist
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213
228-493-6631

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

From: LANIER, JANET L CTR USAF AETC BOS/CEV [mailto:janet.lanier.ctr@us.af.mil]
Sent: Wednesday, February 18, 2015 2:34 PM
To: Paul Necaie (paul_necaie@fws.gov); Dennis Riecke (DennisR@mdwfp.state.ms.us); Hereford, Scott
Subject: consultation with Keesler AFB

All:

Wasn't sure if this letter would get to you or not but wanted to make sure you saw it and we received any comments you wanted to make.
Thanks for your help.

Janet Lanier
Environmental and Planning Manager
PAE/CEV
Keesler AFB, MS
228-377-1262 DSN 597-1262
334-430-1130 cell



**MISSISSIPPI
DEPARTMENT OF MARINE RESOURCES**

February 10, 2015

Janet Lanier
PAE/CEV
508 L. Street, Bldg. 4705
Keesler Air Force Base, MS 39534

RE: DMR-150215; Division Street Gate

Dear Ms. Lanier:

The Department of Marine Resources in cooperation with other state agencies is responsible under the Mississippi Coastal Program (MCP) for managing the coastal resources of Mississippi. Proposed activities in the coastal area are reviewed to insure that the activities are in compliance with the MCP.

The Department has received a request to review a proposal for the construction of a gate at Division Street, Biloxi, Harrison County, Mississippi. The Department has no objections provided there are no direct or indirect impacts to coastal wetlands and no coastal program agency objects to the proposal. If wetland impacts are anticipated, an application should be submitted to this office for review. Thank you for the opportunity to comment on your project.

For more information, questions concerning this correspondence, or to obtain an application packet, contact Jennifer Wilder with the Bureau of Wetlands Permitting at (228) 523-4121 or jennifer.wilder@dmr.ms.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Willa J. Brantley".

Willa J. Brantley
Bureau Director, Wetlands Permitting

WJB/jjw

cc: Tasha Golson

Mississippi Archives and History Correspondence

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

From: Greg Williamson [mailto:gwill@mdah.state.ms.us]
Sent: Monday, April 20, 2015 5:02 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Cc: Bill Gatlin
Subject: Re: Public Notice of EA for Division Street Gate

Hi Janet,

Sample MOA attached. Obviously, USAF should be substituted for the City of Biloxi, and the address(es) of the resource(s) should be changed.

Regarding the documentation - A history of the house and neighborhood should be provided. The historian performing the documentation should consult the HABS guidelines to be sure the photographs are correctly named and referenced so that we can tell what elevation we are looking at, which room the picture is of, etc. Please feel free to contact Bill Gatlin or me if you have any questions.

Best,
Greg

Greg Williamson (601) 576-6538
Review and Compliance Officer
Mississippi Department of Archives and History Historic Preservation P. O.
Box 571 Jackson, MS 39205-0571

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

From: Greg Williamson [mailto:gwill@mdah.state.ms.us]
Sent: Friday, April 17, 2015 3:47 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Cc: Bill Gatlin
Subject: Re: Public Notice of EA for Division Street Gate

Yes. Ideally, there would be a MOA describing the documentation requirements. For these resources, Bill thought HABS Level III with digital photography would be acceptable. Would you like me to send you some draft MOA language?

Greg Williamson (601) 576-6538
Review and Compliance Officer
Mississippi Department of Archives and History Historic Preservation P. O. Box 571
Jackson, MS 39205-0571

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

From: Greg Williamson [mailto:gwill@mdah.state.ms.us]
Sent: Thursday, April 16, 2015 12:37 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Cc: HOLLAND, ROBIN CTR USAF AETC BOS/CEV; Bill Gatlin
Subject: Re: Public Notice of EA for Division Street Gate

Janet,

I spoke to Bill about coming to see you and going to visit the neighborhood that will be affected by the undertaking. He did not feel it was necessary. In his opinion, after looking at the provided photos of the houses, checking on Google street view, and looking at the layout of the neighborhood, he thinks that a site visit would not change his opinion that houses in the neighborhood, taken together, form a potentially eligible historic district, and that removing some of them would be a loss of cultural resources. In his view, the amount of effort to document the houses is not unreasonable or prohibitive.

Our response to the EA will echo our previous comments.

Best,

Greg

Greg Williamson (601) 576-6538
Review and Compliance Officer
Mississippi Department of Archives and History Historic Preservation
P. O. Box 571 Jackson, MS 39205-0571

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

From: Greg Williamson
Sent: Thursday, March 26, 2015 1:11 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Cc: Pett, Sam; Bill Gatlin
Subject: Re: Review of proposed Division Street Gate - Keesler AFB

Hi Janet,

Sorry you disagree. If you wish, you can take this to the Advisory Council on Historic Preservation, but that seems like a lot of trouble. Just because we think the houses you wish to demolish may be eligible does not mean you can't do the project. We would only ask for documentation (photographs, history, and floor plans) at HABS III standards, as mitigation for the demolition. We would prefer an MOA, to formalize the agreement. Call me if you would like to discuss this further.

Greg Williamson (601) 576-6538
Review and Compliance Officer
Mississippi Department of Archives and History
Historic Preservation
P. O. Box 571
Jackson, MS 39205-0571

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

From: Greg Williamson
Sent: Friday, March 13, 2015 4:00 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Cc: Pett, Sam; Bill Gatlin
Subject: Re: Review of proposed Division Street Gate - Keesler AFB

Hi Janet,

I will invite Bill Gatlin, the reviewing architectural historian, to respond to your request. One of us will respond to you next week.

Greg Williamson
Review and Compliance Officer
Mississippi Department of Archives and History
Historic Preservation
P. O. Box 571
Jackson, MS 39205-0571

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

On 3/13/2015 1:21 PM, LANIER, JANET L CTR USAF AETC BOS/CEV wrote:

Greg:

I would have to disagree with that assessment. Is there anyway someone can come down and take a closer look. This is not in an area that is consistently residential or has older homes. It is at the very end of Division Street which is commercial - and not old.

Janet Lanier, Environmental Manager
228-377-1262

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

From: Greg Williamson
Sent: Friday, March 13, 2015 11:01 AM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Subject: Re: Review of proposed Division Street Gate - Keesler AFB

Sent letter a day or 2 ago. Review staff think the houses to be demolished may represent part of a potential historic district, and that their demolition would be an adverse effect.

Greg Williamson
(601) 576-6538
Review and Compliance Officer
Mississippi Department of Archives and History Historic Preservation
P. O. Box 571
Jackson, MS 39205-0571

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

From: LANIER, JANET L CTR USAF AETC BOS/CEV
Sent: Tuesday, February 24, 2015 10:18 AM
To: Greg Williamson
Cc: HOLLAND, ROBIN CTR USAF AETC BOS/CEV
Subject: Division St additional information

Greg:

The Meadows gate was established as a gate in 1945, however none of the old gate remains. See picture of the latest gatehouse that was added in 1996. I believe the neighborhood in the vicinity of the gate will be positively impacted as the traffic has caused significant congestion on the two lane residential street.

As for the structures/houses that exists on the parcels, they appear to have been built in the 50's or 60's and do not indicate any historical significance. See photographs.

Please let me know if you need anything else.

Janet Lanier
Environmental and Planning Manager
PAE/CEV
Keesler AFB, MS
228-377-1262 DSN 597-1262

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

From: Greg Williamson
Sent: Monday, February 23, 2015 11:38 AM
To: HOLLAND, ROBIN CTR USAF AETC BOS/CEV
Subject: Re: FW: Consultation with Keesler AFB on project

Hi Robin,

Taking a quick look at what you sent to me, I don't see anything about the age or potential cultural significance of the existing gate (is it to be demolished and replaced?), or any information about any structures that may be present on the parcels to be acquired, including a picture of the front facade of the structures and their date of construction. It is unlikely we we be able to complete our comments without this information.

Call me if you have any questions.

Greg Williamson (601) 576-6538
Review and Compliance Officer
Mississippi Department of Archives and History Historic Preservation
P. O. Box 571
Jackson, MS 39205-0571

6007

SABER project 93-1064, W/O 44867: Demolish existing guard house at Gate 1 (Fac 6008) and construct new (Fac 6007). New building is located approx 30' due west of the original. In addition to the new guard house, extensive work was done around the entrance at Gate 1, to include modifications to the wall extending from the boundary fence. Landscaping and underground sprinklers with lighting were done. Associated utilities were extended to provide water and sewage service to the new building.

1945 original



**Environmental Baseline Survey
Keesler AFB Division Street Gate Project**

Date:
September 2014

Photo By:
G. Hippert

Description:
Parcel 1310H-04-014.000 (287 Forrest Avenue) facing northwest from Forrest Avenue bridge over C-Street ditch.



Date:
September 2014

Photo By:
G. Hippert

Description:
Another view of Parcel 1310H-04-014.000 (287 Forrest Avenue) facing west from Forrest Avenue



**Environmental Baseline Survey
Keesler AFB Division Street Gate Project**

Date:
September 2014

Photo By:
G. Hippert

Description:
Parcel 1310H-04-013.000 (293 Forrest Avenue) facing west from Forrest Avenue. Home has been demolished.



Date:
September 2014

Photo By:
G. Hippert

Description:
Parcel 1310H-04-012.000 (295 Forrest Avenue) facing west from Forrest Avenue.



**Environmental Baseline Survey
Keesler AFB Division Street Gate Project**

Date:
September 2014

Photo By:
G. Hippert

Description:
Parcel 1310H-04-011.000 (299 Forrest Avenue) facing west from Forrest Avenue.



Date:
September 2014

Photo By:
G. Hippert

Description:
Parcel 1310H-04-010.000 (301 Forrest Avenue) facing west from Forrest Avenue.



**Environmental Baseline Survey
Keesler AFB Division Street Gate Project**

Date:
September 2014

Photo By:
G. Hippert

Description:
Parcel 1310H-04-009.000 (305 Forrest Avenue) facing west from Forrest Avenue.



Date:
September 2014

Photo By:
G. Hippert

Description:
Facing east along Division Street from Forrest Avenue.





*Community Development
Department
Jerry Creel, Director*

Janet Lanier
PEA/CEV
508 L. Street, Bldg. 4705
Keesler Air Force Base, MS 39534
Email: janet.lanier.ctr@us.af.mil

February 3, 2015

RE: Comments with respect to Division Street Gate @ Keesler Air Force Base

Dear Ms. Lanier:

Please be advised that the Planning Division staff of the City of Biloxi carefully reviewed the three alternative proposals for the new main gate off Division Street, as presented within the attachment to the letter dated 26 January 2015 from Tasha R. Golson. The City of Biloxi strongly supports the Preferred Alternative (Alternative 1) as offered. In addition, we can also support the phased arrangement suggested within Alternative 2, but clearly prefer a forthright completion of this much needed new main gate/visitor center/contractor center/POV and commercial vehicle access inspection facility/over-watch facilities, gatehouse facilities, and guard kiosk/canopy facilities being constructed in as timely arrangement as can be reasonably accomplished.

Completion of the Division Street gate and closure of the temporary commercial gate on the northern boundary of the base and the Meadows Drive gate should alleviate many of the concerns experienced by local residents at both locations and will result in a much improved traffic flow in and out of Keesler.

Most assuredly, this main gate relocation project is of high importance and a great benefit to both Keesler as well as to the City of Biloxi. We stand prepared and ready to offer any assistance we can to help expedite this most beneficial project to completion.

To insure that all concerns regarding city street interface and utility preservation are addressed, we do respectfully request that a site plan be submitted to this office at your convenience so that appropriate city personnel can review and comment on this proposal. Thank you.

Sincerely

A handwritten signature in black ink that reads "Jerry Creel". The signature is written in a cursive, flowing style.

Jerry Creel
Director of Community Development

cc: Edward Shambra, Executive Planner
Dan Gaillet, Director of Public Works

676 Dr. Martin Luther King Jr. Blvd.
P.O. Box 508
Biloxi, MS 39533
228-435-6280
Fax: 228-435-6188
Visit online at www.biloxi.ms.us

Harrison County Utility Authority

A.J. Holloway, Mayor, City of Biloxi
Russell Quave, Mayor, City of D'Iberville
Billy Hewes, Mayor, City of Gulfport

Board of Directors

Executive Director
Donald E. Scharr, P.E.

Billy Skellie, Jr., Mayor, City of Long Beach
Chipper McDermott, Mayor, City of Pass Christian
Kim B. Savant, Supervisor, Harrison County
Marlin Ladner, Supervisor, Harrison County

February 10, 2015

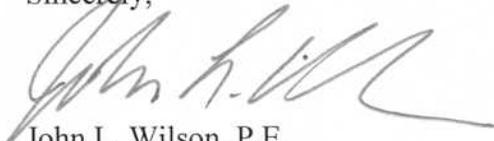
Janet Lanier
PAE/CEV
508 L. Street, Bldg. 4705
Keesler Air Force Base, MS 39534

Re: Division Street Gate at Keesler Air Force Base

Dear Janet,

The Harrison County Utility Authority has no objections to the construction of the Division Street Gate and the associated site work at Keesler AFB. Should you have any questions please call me at the listed numbers or email me at jwilson@hcua-ms.us.

Sincerely,



John L. Wilson, P.E.
O & M Manager

cc. Tasha Golson
Damon Torricelli, P.E. – City of Biloxi
Robert Smith – City of Biloxi



February 25, 2015

Janet Lanier, PAE/CEV
508 L. Street
Building 4705
Keesler Air Force Base, MS 39534

RE: EA for Division Street Gate

The Gulf Regional Planning Commission has reviewed the proposed project and, while in support of the project, we would like to submit the following comment.

The closure of two gate and opening of a new gate will certainly affect traffic patterns in the vicinity of the base, as people adjust their route to access the new gate. We would like to make certain that the study includes a thorough assessment of local circulation patterns to consider the impact of the changed traffic volumes. While some streets may benefit by greatly reduced traffic flows, there may be a need for additional traffic control measures and signage, and the installation of pedestrian facilities to safeguard their movements on streets with increased traffic.

The Gulf Regional Planning Commission staff would be pleased to meet and discuss these issues and will make our data available to assist the base in this undertaking.
Thank you for the opportunity to comment.

Sincerely,

GULF REGIONAL PLANNING COMMISSION



ELAINE G. WILKINSON
EXECUTIVE DIRECTOR



✓ SOUTHERN MISSISSIPPI PLANNING AND DEVELOPMENT DISTRICT • 9229 HIGHWAY 49 • GULFPORT, MISSISSIPPI 39503 • (228) 868-2311 FAX (228) 868-7094

February 20, 2015

Ms. Janet Lanier
PAE/CEV
508 L Street, Bldg. 4705
Keesler Air Force Base, MS 39534

**RE: Environmental Assessment-Division Street Gate
SMPDD #1506-0030**

Dear Ms. Lanier:

I have enclosed the Review and Comments from the Southern Mississippi Planning and Development District Regional Clearinghouse for Federal Programs regarding your application for the work stated above. This project will be located in **Harrison County**.

If you require further information concerning the regional review, please do not hesitate to contact me.

Sincerely,

Regina Melton
Clearinghouse Coordinator

Attachment

SOUTHERN MISSISSIPPI PLANNING AND DEVELOPMENT DISTRICT
REGIONAL CLEARINGHOUSE FOR FEDERAL PROGRAMS
REVIEW AND COMMENTS

February 20, 2015

Ms. Janet Lanier
PAE/CEV
508 L Street, Bldg. 4705
Keesler Air Force Base, MS 39534

**RE: Environmental Assessment-Division Street Gate
SMPDD #1506-0030**

1. The Regional Clearinghouse has received notification of intent to apply for Federal assistance as described above. NO COMMENTS NO CLEARINGHOUSE NEEDED.

2. The Regional Clearinghouse has reviewed the application(s) for Federal assistance described above.

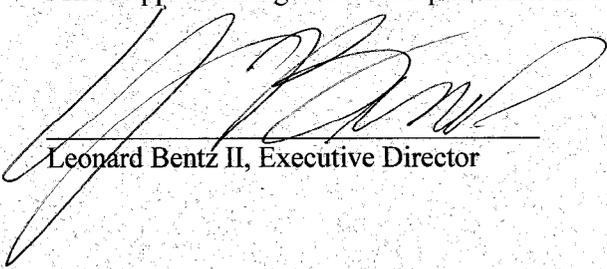
3. The Regional Clearinghouse has notified the appropriate metropolitan, local, and regional organizations and is awaiting notification of their interest on the project.

4. After proper notification, no local or regional agency (or other appropriate organization) has expressed an interest in conferring with the applicant(s) or commenting on the proposed project.

5. The proposed project is consistent inconsistent with the Comprehensive Economic Development Strategy for the Southern Mississippi Planning and Development District.

6. Although a _____ plan does not presently exist for _____, the proposed project appears to be consistent inconsistent with the regional goals and objectives.

COMMENTS: This project is consistent with the policies and objectives of the Southern Mississippi Planning and Development District.



Leonard Bentz II, Executive Director

Response_JenaBandChoctaw-1.txt

From: Alina Shively [ashively@jenachoctaw.org]

Sent: Thursday, February 26, 2015 3:41 PM

To: LANIER, JANET L CTR USAF AETC BOS/CEV

Subject: Keesler Air Force Base, MS-EA for Construction and Operation of a Division Street Gate

After review of the Draft Environmental Assessment, the Jena Band of Choctaw Indians hereby concurs with the determination of No Properties. Should any inadvertent discoveries occur, please contact our office immediately. Thank you for the opportunity to comment on this project.

Sincerely,

Alina J. Shively
Jena Band of Choctaw Indians
Deputy THPO
P.O. Box 14
Jena, LA 71342
(318) 992-1205
ashively@jenachoctaw.org

Response_JenaBandChoctaw.txt

From: LANIER, JANET L CTR USAF AETC BOS/CEV <janet.lanier.ctr@us.af.mil>
Sent: Tuesday, March 17, 2015 10:11 AM
To: Alina Shively
Cc: Pett, Sam; HOLLAND, ROBIN CTR USAF AETC BOS/CEV
Subject: RE: Consultation with Keesler AFB Biloxi MS

Ms. Shively:

Thank you so much for your help. Keesler has had cultural resource surveys performed on the base and there were no archeological sites. However, in the unlikely event that human remains or intact archaeological deposits are encountered, we will halt all ground-disturbing projects in the vicinity are halted and contact you as quickly as possible.

v/r

Janet

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

From: Alina Shively [mailto:ashively@jenachoctaw.org]
Sent: Tuesday, March 17, 2015 8:26 AM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Subject: Consultation with Keesler AFB Biloxi MS

Dear Ms. Lanier:

Regarding the above-mentioned project, has a Cultural Resources Survey or Environmental Assessment been performed within the APE of the project? In your email dated February 19, 2015, you stated that the base has no archaeological sites. If this is correct, the Jena Band of Choctaw Indians' THPO hereby concurs with the determination of No Properties and Alternative 1.

Also, please be advised that Consultation/Section 106 correspondence should be sent to my attention via the contact information below. Thank you.

Sincerely,

Alina J. Shively
Jena Band of Choctaw Indians
Deputy THPO
P.O. Box 14
Jena, LA 71342
(318) 992-1205
ashively@jenachoctaw.org

ChoctawNation-OK_LatLong for Division Street Gate.txt

From: LANIER, JANET L CTR USAF AETC BOS/CEV <janet.lanier.ctr@us.af.mil>
Sent: Wednesday, March 11, 2015 5:09 PM
To: Pett, Sam
Subject: FW: Lat/Long for Division Street Gate

Here you go

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

From: Ian Thompson [mailto:ithompson@choctawnation.com]
Sent: Wednesday, March 11, 2015 4:00 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Cc: Rubye R. Taylor
Subject: RE: Lat/Long for Division Street Gate

Janet,

I enjoyed speaking with you as well. Thank you for providing the requested coordinates. The Choctaw Nation of Oklahoma would concur with a finding of "No Historic Properties Affected" for the above-referenced project. In the unlikely event that human remains or intact archaeological deposits are encountered, we ask that ground-disturbing projects in the vicinity are halted and that our office is contacted as quickly as possible.

Thank you,

Ian Thompson PhD, RPA
THPO, Tribal Archaeologist,
Director, Historic Preservation Dept.
Choctaw Nation of Oklahoma
PO Drawer 1210
Durant, OK 74701
1-800-522-6170 ext. 2216

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

From: LANIER, JANET L CTR USAF AETC BOS/CEV [mailto:janet.lanier.ctr@us.af.mil]
Sent: Wednesday, March 11, 2015 3:50 PM
To: Ian Thompson
Subject: FW: Lat/Long for Division Street Gate

Ian:

It was good talking with you and if you ever need any more information please contact me. I think the coordinates that you requested are below.

Let me know if that is not what you need.

Thank You

v/r

Janet

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

ChoctawNation-OK_LatLong for Division Street Gate.txt

From: HOLLAND, ROBIN CTR USAF AETC BOS/CEV

Sent: Wednesday, March 11, 2015 3:36 PM

To: LANIER, JANET L CTR USAF AETC BOS/CEV

Subject: Lat/Long for Division Street Gate

Coordinates are for Keesler's fence line where Division Street Gate would meet.

-88.904/ 30.404

Robin Holland

GeoBase Manager

Comm (228) 377-8255

DSN 597-8255

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure. If you have received this message in error, you are hereby notified that we do not consent to any reading, dissemination, distribution or copying of this message. If you have received this communication in error, please notify the sender immediately and destroy the transmitted information. Please note that any view or opinions presented in this email are solely those of the author and do not necessarily represent those of the Choctaw Nation.

APPENDIX B

Agency and Public Comments on the Draft EA

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U.S. Fish and Wildlife Service Response to Draft EA Review

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

From: Paul Necaïse [mailto:paul_necaïse@fws.gov]
Sent: Monday, May 18, 2015 2:48 PM
To: LANIER, JANET L CTR USAF AETC BOS/CEV
Subject: RE: Public Notice of EA for Division Street Gate

Janet,

Thanks for the update on this project. The Service has no additional comments to provide on the subject proposed project.

Paul Necaïse
Coastal Biologist
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213
228-493-6631

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

From: LANIER, JANET L CTR USAF AETC BOS/CEV [mailto:janet.lanier.ctr@us.af.mil]
Sent: Thursday, April 16, 2015 9:09 AM
To: Paul Necaïse (paul_necaïse@fws.gov)
Cc: HOLLAND, ROBIN CTR USAF AETC BOS/CEV
Subject: Public Notice of EA for Division Street Gate

Paul:

Here is our official public notice about the proposed Division Street Gate project that we initially coordinated with you on earlier. There have not been any significant changes from the draft to the proposed final document.

The documents will be on our public web page by the April 17, 2015. Please let us know if you have any comments or questions.

Thanks so much for your time on this.

Janet Lanier
Environmental and Planning Manager
PAE/CEV
Keesler AFB, MS
228-377-1262 DSN 597-1262
334-430-1130 cell



Jena Band of Choctaw Indians

P. O. Box 14 • Jena, Louisiana 71342-0014 • Phone: 318-992-2717 • Fax: 318-992-8244

April 28, 2015

**DEPARTMENT OF THE AIR FORCE
81TRW/PA
517 L STREET, ROOM 113C
KEESLER AFB, MS 39534**

**RE: ENVIRONMENTAL ASSESSMENT (EA)
CONSTRUCTION AND OPERATION OF A DIVISION GATE
KEESLER AFB, MS**

To Whom It May Concern:

Reference is made to your letter, dated April 14, 2015, concerning the above-proposed project.

After thorough review of the documents submitted, it has been determined that there will be no significant ENVIRONMENTAL impact in regards to the Jena Band of Choctaw Indians.

Should there be any Cultural significance or impacts you should contact our Tribal Cultural Department at 318-992-1205 and speak with Mrs. Alina Shively, the Tribal Historic Preservation Officer (THPO).

Should you have any questions, please feel free to call me.

Sincerely,

A handwritten signature in blue ink that reads "Lillie Williamson".

Lillie Williamson
Environmental Director
Jena Band of Choctaw Indians
Ph: 318-992-8258
Fax: 318-992-8244
lwilliamson@jenachoctaw.org

APPENDIX C

Air Quality Supporting Documentation

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Table C-1. Construction Equipment Use Preferred Alternative

Equipment Type	Number of Units	Days on Site	Hours Per Day	Operating Hours
Excavators	1	115	4	460
Rollers	1	173	8	1,384
Rubber Tired Dozers	1	115	8	920
Plate Compactors	1	115	4	460
Trenchers	1	58	8	464
Air Compressors	1	115	4	460
Cement Mixers	1	115	6	690
Cranes	1	115	7	805
Generator Sets	1	115	4	460
Loaders/Backhoes	1	230	7	1,610
Pavers	4	58	8	1,856
Paving Equipment	4	58	8	1,856

Table C-2. Construction Equipment Emission Factors (lbs/hour)

Equipment	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Excavators	0.5828	1.3249	0.1695	0.0013	0.0727	0.0727	119.6
Rollers	0.4341	0.8607	0.1328	0.0008	0.0601	0.0601	67.1
Rubber Tired Dozers	1.5961	3.2672	0.3644	0.0025	0.1409	0.1409	239.1
Plate Compactors	0.0263	0.0328	0.0052	0.0001	0.0021	0.0021	4.3
Trenchers	0.5080	0.8237	0.1851	0.0007	0.0688	0.0688	58.7
Air Compressors	0.3782	0.7980	0.1232	0.0007	0.0563	0.0563	63.6
Cement Mixers	0.0447	0.0658	0.0113	0.0001	0.0044	0.0044	7.2
Cranes	0.6011	1.6100	0.1778	0.0014	0.0715	0.0715	128.7
Generator Sets	0.3461	0.6980	0.1075	0.0007	0.0430	0.0430	61.0
Loaders/Backhoes	0.4063	0.7746	0.1204	0.0008	0.0599	0.0599	66.8
Pavers	0.5874	1.0796	0.1963	0.0009	0.0769	0.0769	77.9
Paving Equipment	0.0532	0.1061	0.0166	0.0002	0.0063	0.0063	12.6

Source CARB 2012

Table C-3. Construction Equipment Emissions (tons) Preferred Alternative

Equipment	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Excavators	0.1341	0.3047	0.0390	0.0003	0.0167	0.0167	27.5
Excavators	0.3004	0.5956	0.0919	0.0005	0.0416	0.0416	46.4
Rollers	0.7342	1.5029	0.1676	0.0011	0.0648	0.0648	110.0
Rubber Tired Dozers	0.0061	0.0076	0.0012	0.0000	0.0005	0.0005	1.0
Plate Compactors	0.1179	0.1911	0.0429	0.0002	0.0160	0.0160	13.6
Trenchers	0.0870	0.1835	0.0283	0.0002	0.0130	0.0130	14.6
Air Compressors	0.0154	0.0227	0.0039	0.0000	0.0015	0.0015	2.5
Cement Mixers	0.2419	0.6480	0.0716	0.0006	0.0288	0.0288	51.8
Cranes	0.0796	0.1605	0.0247	0.0002	0.0099	0.0099	14.0
Generator Sets	0.3271	0.6235	0.0969	0.0006	0.0482	0.0482	53.8
Loaders/Backhoes	0.5451	1.0019	0.1822	0.0008	0.0714	0.0714	72.3
Pavers	0.0494	0.0984	0.0154	0.0001	0.0059	0.0059	11.7
Total	2.64	5.34	0.77	<0.1	0.32	0.32	419.3

Table C-4. Emissions from Painting Preferred Alternative

VOC Content	0.84	lbs/gallon		
Coverage	400	sqft/gallon		
Emission Factor	0.0021	lbs/sqft		
Building/Facility	Area [sqft]	Wall Surface	VOC [lbs]	VOC [tons]
All Buildings Combined	16,429	32,858	69.0	0.035
Total	16,429	32,858	69.0	0.03

Source: SECARB 1994

Table C-5. Emissions from Delivery of Equipment Preferred Alternative

Number of Deliveries	2						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	230						
Total Miles	27,600						
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factor (lbs/mile)	2.2E-02	2.4E-02	3.0E-03	2.6E-05	8.6E-04	7.4E-04	2.7E+00
Total Emissions (lbs)	605.8	654.5	82.6	0.7	23.6	20.4	75,056.4
Total Emissions (tons)	0.30	0.33	0.04	0.0004	0.01	0.01	37.5

Source: CARB 2014

Table C-6. Particulates from Surface Disturbance Preferred Alternative

TSP Emissions	37.4	lb/acre				
PM ₁₀ /TSP	0.45					
PM _{2.5} /PM ₁₀	0.15					
Period of Disturbance	30	days				
Capture Fraction	0.5					
Building/Facility	Area [acres]	TSP [lbs]	PM ₁₀ [lbs]	PM ₁₀ [tons]	PM _{2.5} [lbs]	PM _{2.5} [tons]
All Facilities	18.7	21,028	9,463	4.73	710	0.35
Total	18.7	21,028	9,463	4.73	710	0.35

Source: USEPA 1995

Table C-7. Emissions from Worker Commutes Preferred Alternative

Number of Workers	24						
Number of Trips	2						
Miles Per Trip	20						
Days of Construction	58						
Total Miles	55,680						
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factor (lbs/mile)	1.1E-02	1.1E-03	1.1E-03	1.1E-05	8.5E-05	5.3E-05	1.1E+00
Total Emissions (lbs)	587	61	60	1	5	3	61,222
Total Emissions (tons)	0.29	0.03	0.03	0.6	0.00	0.00	30.6

Source: CARB 2014

Table C-8. Total Construction Emissions (tons) Preferred Alternative

Activity/Source	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Heavy Equipment	2.64	5.34	0.77	0.0047	0.32	0.32	419.28
Painting	0.00	0.00	0.03	0.0000	0.00	0.00	0.00
Delivery of Equipment	0.30	0.33	0.04	0.0004	0.01	0.01	37.53
Surface Disturbance	0.00	0.00	0.00	0.0000	4.73	0.35	0.00
Worker Commutes	0.29	0.03	0.03	0.5984	0.00	0.00	30.61
Total Emissions	3.2	5.7	0.9	0.6	5.1	0.7	487.4

Source: CARB 2014, SECARB 1994, USEPA 1995

Table C-9. Total Construction Emissions (tons) Preferred Alternative and Alternative 2

	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Preferred Alternative	3.2	5.7	0.9	0.6	5.1	0.7	487
Alternative 2	1.1	1.9	0.3	0.2	1.7	0.2	159
Total Construction Emissions	4.3	7.6	1.2	0.8	6.7	0.9	647

Source: CARB 2014, SECARB 1994, USEPA 1995

Table C-10. Heating Emissions Preferred Alternative

Heating Fuel	Other						
Region	South						
Gross Area	10,802	sf					
Heating Requirements	101.2	Btu/sf					
Annual Heating	1,093,162	Btu/year					
Heating Value	1,020	Btu/scf					
Annual Fuel Use	1,072	scf/year					
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factors (lb/1000 scf)	84	190	5.5	0.6	7.6	7.6	1.2E+05
Total Emissions (tpy)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	64.3

Source: USEPA 1995, DOE 2003

Table C-11. Emissions from Worker Commutes Preferred Alternative)

Trips Generated	Weekday	0	Saturday	0	Sunday	0	
Annual Number of Trips	0						
Miles Per Trip	30						
Days of Work	260						
Total Miles	0						
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Emission Factor (lbs/mile)	1.1E-02	1.1E-03	1.1E-03	1.1E-05	8.5E-05	5.3E-05	1.1E+00
Total Emissions (lbs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
Total Emissions (tons)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Source: CARB 2014

Table C-12. Total Operational Emissions (tons per year) Preferred Alternative

Activity/Source	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Heating Emissions	<0.1	0.10	<0.1	<0.1	<0.1	<0.1	6.4E+01
Worker Commutes	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Operational Emissions	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	64.3

Source: USEPA 1995, DOE 2003, and CARB 2014

Table C-13. Total Operational Emissions (tons per year) Both Alternatives

	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Preferred Alternative	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	64.3
Alternative 2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	21.0
Total Operational Emissions	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	85.3

Source: USEPA 1995, DOE 2003, and CARB 2014

APPENDIX D

Federal Consistency Determination Mississippi Coastal Zone Management Program

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**FEDERAL CONSISTENCY DETERMINATION
MISSISSIPPI COASTAL ZONE MANAGEMENT PROGRAM**

The consistency of the proposed project with the enforceable goals and policies of the Mississippi Coastal Management Program is summarized below for each applicable goal and policy. Further information is in the text of the environmental assessment.

MISSISSIPPI COASTAL PROGRAM ENFORCEABLE POLICIES
<p>GOAL 1: <i>To provide for reasonable industrial expansion in the coastal area and to ensure the efficient utilization of waterfront industrial sites so that suitable sites are conserved for water dependent industry.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. No aspect of the proposed project would limit industrial expansion or affects a waterfront industrial site.</p>
<p>GOAL 2: <i>To favor the preservation of the coastal wetlands and ecosystems, except where a Specific alteration of specific coastal wetlands would serve a higher public interest in compliance with the public purposes of the public trust in which the coastal wetlands are held.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. No aspect of the proposed project would affect a coastal wetland. Stormwater runoff from the project site during and after construction would flow to the Keegan Bayou channel and Back Bay of Biloxi, but construction stormwater runoff would be controlled in accordance with coverage under the Large Construction General Permit for Land Disturbing Activities of 5 Acres or More issued by the Mississippi Department of Environmental Protection (MDEQ). Post-construction runoff would not exceed pre-construction runoff in rate or volume in accordance with Federal and MDEQ policy. Therefore, the proposed project would not affect coastal ecosystems.</p>
<p>GOAL 3: <i>To protect, propagate, and conserve the state's seafood and aquatic life in connection with the revitalization of the seafood industry of the State of Mississippi.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. No aspect of the proposed project would affect the state's seafood and aquatic life or seafood industry.</p>
<p>GOAL 4: <i>To conserve the air and waters of the state, and to protect, maintain, and improve the quality thereof for public use, for the propagation of wildlife, fish, and aquatic life, and for domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The air emissions and stormwater runoff attributable to the proposed project would not be sufficient to affect the propagation of wildlife, fish, and aquatic life.</p>
<p>GOAL 5: <i>To put to beneficial use to the fullest extent of which they are capable the water resources of the state, and to prevent the waste, unreasonable use, or unreasonable method of use of water.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The proposed project would not waste or unreasonably use the water resources of the state.</p>
<p>GOAL 6: <i>To preserve the state's historical and archaeological resources, to prevent their destruction, and to enhance these resources wherever possible.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The proposed project would not affect any historical or archaeological resource within the state.</p>
<p>GOAL 7: <i>To encourage the preservation of natural scenic qualities in the coastal area.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The proposed project would not affect natural scenic qualities in the coastal area.</p>

<p>GOAL 8: <i>To assist local governments in the provision of public facilities services in a manner consistent with the coastal program.</i></p> <p><u>Consistency of the Proposed Action:</u> The goal is not applicable to the proposed project.</p>
<p>COASTAL PRESERVES PROGRAM GOALS</p>
<p>GOAL 1: <i>Restore, enhance, protect, and manage Mississippi's remaining coastal estuarine marsh ecosystems.</i></p> <p><i>Objective: Acquire and protect coastal habitats.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The proposed project would not affect the state's coastal estuarine marsh ecosystems.</p>
<p>GOAL 2: <i>Protect and preserve habitat of any rare, threatened, or endangered species of plants and animals present on Coastal Preserves.</i></p> <p><i>Objective: Protect and preserve habitat critical for rare, threatened, and endangered species.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The proposed project would not affect the habitat of any rare, threatened, or endangered species of plant or animal in Coastal Preserves.</p>
<p>GOAL 3: <i>Promote increased opportunities for public appreciation and enjoyment of Mississippi's coastal estuarine wetlands that are compatible with protecting, preserving, and enhancing the natural resources.</i></p> <p><u>Consistency of the Proposed Action:</u> The goal is not applicable to the proposed project.</p>
<p>GOAL 4: <i>Acquire, restore, and protect unique habitats associated with plant and animal communities.</i></p> <p><i>Objective: Identify unique habitats within the Coastal Preserve sites.</i></p> <p><i>Objective: Acquire and protect unique habitats and communities. Strategy (1): Acquire significant acreage of unique habitat and communities. Strategy (2): Develop management plans that preserve ecological integrity of habitat.</i></p> <p><u>Consistency of the Proposed Action:</u> The goal is not applicable to the proposed project.</p>
<p>GOAL 5: <i>Monitor populations of non-indigenous species and protect native species from deleterious effects of non-indigenous species.</i></p> <p><i>Objective: Identify, document location of, and monitor populations and effects of non-indigenous species on native flora and fauna.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The proposed project would not increase the distribution of non-indigenous species.</p>
<p>GOAL 6: <i>Contribute to the viability and natural biodiversity of coastal estuarine marsh ecosystems through management.</i></p> <p><i>Objective: Manage Coastal Preserves to support priority habitats and species and to promote environmental education and public use.</i></p> <p><u>Consistency of the Proposed Action:</u> The proposed project is fully consistent with this goal. The proposed project would not affect the viability and natural biodiversity of coastal estuarine marsh ecosystems.</p>

GOAL 7: *Develop coastal preserve management strategies that foster improved coordination among federal, state, and local entities with jurisdiction and interests in coastal wetland protection.*

Objective: Gather and make available information needed by reserve managers and coastal decision-makers for improved understanding and management of coastal resources.

Objective: Make Coastal Preserve management processes visible, coherent, accessible, and acceptable to the people of Mississippi.

Consistency of the Proposed Action: The goal is not applicable to the proposed project.

GOAL 8: *Increase public awareness and interest in the values and functions of coastal wetlands, their habitats, and the ecosystems they are dependent upon.*

Objective: Develop and deliver educational materials and programs to inform the public about wetland species, their habitats, and their value to human beings. Strategy (1): Develop four public information brochures or pamphlets about coastal wetland protection programs and local wetland functions by 2008.

Consistency of the Proposed Action: The goal is not applicable to the proposed project.

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