

**ENVIRONMENTAL ASSESSMENT (EA)  
FOR MD 4 AT SUITLAND PARKWAY INTERCHANGE  
CONSTRUCTION ON JOINT BASE ANDREWS-NAVAL AIR  
FACILITY WASHINGTON, MD**



PREPARED FOR:

**Department of the Air Force**

March 2015

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**FINDING OF NO SIGNIFICANT IMPACTS (FONSI)  
MD 4 at Suitland Parkway Interchange Construction  
on Joint Base Andrews-Naval Air Facility Washington, MD**

**Prince George's County, Maryland**

Pursuant to provisions of the National Environmental Policy Act (NEPA), Title 42 United States Code (USC) Sections 4321 to 4347, implemented by Council on Environmental Quality (CEQ) Regulations, Title 40, Code of Federal Regulations (CFR) §1500-1508, and 32 CFR §989, Environmental Impact Analysis Process, and on behalf of the U.S. Air Force (Air Force), the Maryland State Highway Administration (SHA) assessed the potential environmental consequences associated with the MD 4 and Suitland Parkway Interchange Construction on Joint Base Andrews-Naval Air Facility Washington, MD in Prince George's County.

The purpose of the proposed action is to facilitate transportation improvements at the intersection of MD 4 with Suitland Parkway and Presidential Parkway. This action is needed to improve traffic operations and provide sufficient capacity to address existing and projected travel demands along the MD 4 corridor. The proposed improvements address safety and capacity requirements in order to alleviate existing deficiencies while accommodating projected traffic increases resulting from existing and planned growth in this area.

The Environmental Assessment (EA), incorporated by reference into this finding, analyzes the potential environmental consequences of activities associated with the MD 4 and Suitland Parkway Interchange Construction, and provides environmental protection measures to avoid or reduce adverse environmental impacts.

The EA considers all potential impacts of the Proposed Action and the No Action Alternative. The EA also considers cumulative environmental impacts with other projects at Joint Base Andrews-Naval Air Facility Washington, MD (JBA).

**PROPOSED ACTION**

The Maryland State Highway Administration (SHA) has proposed improvements that would construct a grade-separated, signalized diamond interchange with a directional ramp at the intersection of MD 4 and Suitland Parkway/Presidential Parkway. The profile of Suitland Parkway and existing Presidential Parkway would be raised, while the profile of MD 4 would be lowered, allowing Suitland Parkway and existing Presidential Parkway to travel over MD 4. Elements of the current design that would occur within the boundary of JBA include the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path.

The MD 4/Suitland Parkway/Presidential Parkway interchange construction would maintain access between westbound Suitland Parkway and JBA North Gate. In addition, the existing ramp from eastbound Suitland Parkway to JBA North Gate would be maintained. The access from JBA North Gate to eastbound Suitland Parkway and Old Marlboro Pike would be provided via a newly constructed spur diverging from the outbound ramp (from JBA North Gate to westbound Suitland Parkway). This spur would connect (in a T-intersection) to a newly constructed two-lane road between Old Marlboro Pike and the ramp from southbound MD 4 to Suitland Parkway. This two-lane road would terminate at the ramp from southbound MD 4 to

Suitland Parkway as a right-in and right-out connection. This will allow travel to eastbound Suitland Parkway and further to southbound MD 4.

NuStar Energy, L.P. owns and operates an eight-inch high pressure petroleum products fuel line that services JBA. The existing fuel line runs parallel to and across Suitland Parkway and MD 4. Construction of the MD 4/Suitland Parkway/Presidential Parkway interchange would require several sections of the existing fuel line to be removed and relocated. A 355 linear foot segment of fuel line will be abandoned in place as it travels along the rock walls paralleling the westbound lanes of Suitland Parkway and under the existing Suitland Parkway Bridge over the entrance ramp to the JBA North Gate. New fuel line (2,100 linear feet) will be laid between the tie-in location and a new crossing under the JBA perimeter fence.

Additionally, widening along the southbound MD 4 mainline would require the relocation of approximately 720 linear feet of the JBA perimeter fence and security path up to 25 feet west of their existing location and the extension of an existing culvert by approximately 15 feet. The proposed action would include a temporary construction easement for approximately 7.7 acres (334,824 square feet), a perpetual easement for less than 0.1 acre, and a revertible easement for approximately 0.6 acre to SHA via revertible easement.

### **NO ACTION ALTERNATIVE**

The No Action Alternative describes the action of continuing the present transportation conditions. Under the No Action Alternative the existing at-grade intersection would remain and there would be no need to relocate the fuel line, perimeter fence, or security path. The intersection of MD 4/Suitland Parkway/Presidential Parkway would continue to experience a breakdown of traffic flow with frequent delays at high traffic volumes and congestion would remain an issue at the intersection. This condition would be exacerbated by projected traffic volume increases as a result of area and regional increases in development.

### **ALTERNATIVES TO THE PROPOSED ACTION**

FHWA and SHA completed multiple studies documenting alternatives to the signalized diamond interchange with directional ramp design, the current design. These studies included: a May 19, 2000 FHWA approved FONSI; a June 2014 National Park Service EA; a Final Section 4(f) Evaluation, approved by FHWA November 10, 2014; and an Environmental Reevaluation, approved by FHWA November 12, 2014. These studies concluded that the current design best met the project purpose and need. Additionally, each of the alternatives evaluated would require the relocation of the fuel line, perimeter fence, and security path similar to the current design to accommodate grading and elevation changes associated with the interchange construction. Therefore, the alternatives evaluated in this EA are limited to the No Action Alternative and the proposed action.

### **SUMMARY OF FINDINGS**

The analyses of the affected environment and environmental consequences of implementing the proposed action presented in the EA concludes that by implementing environmental protection measures as well as the avoidance and minimization, JBA would be in compliance with all terms and conditions and reporting requirements for implementation of the reasonable and prudent measures.

The Air Force has concluded that no significant adverse effects would result to the following resources as a result of the proposed action: air installation compatibility use zone/land use, stream, wetlands, occupational safety and health, human and environmental health due to hazardous materials, biological and natural resources, or cultural resources. No significant adverse cumulative impacts would result from activities associated with the Proposed Action when considered with past, present, or reasonably foreseeable future projects at JBA. In addition, the EA concluded that the action alternative would not affect the following resources: 100-Year Floodplain; Groundwater, Geology and Topography, Airspace and Airfield Operation, Environmental Justice, Socioeconomics, Visual Resources, Bird-Aircraft Strike Hazards, Air Quality, Climate or Clear Zones.

Maryland Coastal Zone Management: In accordance with the Federal Coastal Zone Management Act (CZMA) and the Maryland Coastal Zone Management Program, this federal action must be consistent "to the maximum extent practicable" with the Maryland Coastal Zone Management Program. In accordance with Maryland's Federal Consistency Process, SHA submitted a Federal/State Joint Permit Application under U.S. Army Corps of Engineers Section 404, certifying that the proposed action is consistent with Maryland's Coastal Zone Management Process. The Maryland Department of the Environment will provide a consistency determination when it issues the permit.

#### **FINDING OF NO SIGNIFICANT IMPACT**

Based on my review of the facts and analyses contained in the attached EA, conducted under the provisions of NEPA, CEQ Regulations, and 32 CFR §989, I find that the Preferred Alternative, the MD 4 and Suitland Parkway Interchange Construction, cumulatively with other projects at JBA will not result in a significant impact. Accordingly, an Environmental Impact Statement is not required. The signing of this Finding of No Significant Impact completes the environmental impact analysis process.

The signing of the FONSI for the proposed MD 4 and Suitland Parkway interchange construction at JBA will complete the Environmental Impact Analysis Process under Air Force regulations.



DANIEL L. WATERS, Colonel, USAF  
Vice Commander

31 MAR 2015

Date

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MD 4 at Suitland Parkway Interchange Construction  
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### GLOSSARY OF ABBREVIATIONS AND ACRONYMS

ADT	Average Daily Traffic Volume
AEF	Air and Space Expeditionary Forces
BMPs	Best Management Practices
AICUZ	Air Installation Compatible Use Zone
CEQ	Council on Environmental Quality
CES/CEIE	Civil Engineer Squadron, Environmental Element
CFR	Code of Federal Regulations
DNR	Maryland Department of Natural Resources
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EPA	Environmental Protection Agency
EO	Executive Order
FEMA	Federal Emergency Management Agency
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
FHWA	Federal Highway Administration
JBA	Joint Base Andrews-Naval Air Facility Washington, MD
JPA	Joint Permit Application
LOS	Level-of-Service
MAJCOM	Major Command
MDE	Maryland Department of the Environment
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NPS	National Park Service
NRHP	National Register of Historic Places
ROW	Right-of-way
SE/SC	Sediment erosion and sediment control
SHA	Maryland State Highway Administration
SHPO	State Historic Preservation Officer
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

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### Cover Sheet

## ENVIRONMENTAL ASSESSMENT

### MD 4 at Suitland Parkway Interchange Construction on Joint Base Andrews-Naval Air Facility Washington, MD

**Responsible Agencies:** U.S. Air Force, Maryland State Highway Administration (SHA), and Federal Highway Administration (FHWA)

**Affected Location:** Intersection of MD 4 and Suitland Parkway, located approximately one mile southeast of the MD 4/Capital Beltway (I-95/I-495) interchange in Prince George's County, Maryland. Elements of the proposed action would include minor modifications to access at Joint Base Andrews-Naval Air Facility Washington, MD (JBA) North Gate, as well as the relocation of an existing high pressure fuel line and the relocation of the JBA perimeter fence and security path in the north east portion of JBA.

**Proposed Action:** The MD 4/Suitland Parkway Interchange project would upgrade the existing MD 4 and Suitland Parkway/Presidential Parkway intersection to a grade-separated, signalized diamond interchange with a directional ramp. The proposed action includes requisite roadway improvements and utility/service modifications within the boundary of JBA to accommodate the interchange construction.

**Report Designation:** Environmental Assessment

**Written comments and inquiries regarding this document should be directed to:** Mr. Bruce Grey, Deputy Director for Office of Planning and Preliminary Engineering, Maryland State Highway Administration, 707 North Calvert Street, Baltimore, MD 21202 or via email to [bgrey@sha.state.md.us](mailto:bgrey@sha.state.md.us). Your assistance in providing information is greatly appreciated.

**Abstract:** SHA and FHWA are proposing roadway improvements at the intersection of MD 4 and Suitland Parkway, located approximately one mile southeast of the MD 4/Capital Beltway (I-95/I-495) interchange in Prince George's County (Figure 1). The MD 4/Suitland Parkway Interchange project would upgrade the existing MD 4 and Suitland Parkway/Presidential Parkway intersection to a grade-separated, signalized diamond interchange with a directional ramp.

The scope of this EA includes an evaluation of alternatives for the proposed activities, where applicable, and analysis of the cumulative impacts on the natural and manmade environments within the boundary of JBA. This EA has been prepared to report the evaluation conducted of the proposed action and alternatives, including the No Action Alternative. Resource areas addressed in the EA include: air installation compatibility use zone/land use, stream, wetlands, occupational safety and health, human and environmental health due to hazardous materials, biological and natural resources, or cultural resources.

The Draft EA was made available to agencies and the public for a 15-day comment period from February 13, 2015 to February 28, 2015.

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Environmental Assessment  
Purpose and Need for Action

MD 4 at Suitland Parkway Interchange Construction  
on Joint Base Andrews-Naval Air Facility Washington, MD

### 1.0 PURPOSE AND NEED FOR ACTION

#### 1.1 INTRODUCTION

The Maryland State Highway Administration (SHA) and Federal Highway Administration (FHWA) are proposing roadway improvements at the intersection of MD 4 and Suitland Parkway, located approximately one mile southeast of the MD 4/Capital Beltway (I-95/I-495) interchange in Prince George's County, Maryland (Figure 1). The project area abuts the northeastern portion of Joint Base Andrews-Naval Air Facility Washington, MD (JBA) and would require construction within the boundary of JBA (Figure 2). The construction activities within the boundary of JBA would include grading necessary to facilitate the construction of a proposed grade-separated interchange at MD 4 and Suitland Parkway, the relocation of the existing high pressure fuel line, and perimeter fence and security path occupying the northeast perimeter of JBA (Figure 3). The proposed interchange construction would require right-of-way (ROW) acquisition within the existing northeast perimeter of JBA. Additionally, construction within the northeast boundary of JBA would require modifications to the vehicle access at the JBA North Gate; however, this work would be completed outside of the boundary of JBA. The proposed work within the boundary of JBA would require authorization from the U.S. Air Force (Air Force). Per the requirements of 32 Code of Federal Regulations (CFR) 989, the Air Force Environmental Impact Analysis Process (EIAP) §14(j)(1), "All [environmental assessments] on non-Air Force proposals that require an Air Force decision, such as use of Air Force property for highways, space ports, and joint-use proposals," require Major Command (MAJCOM) approval. Therefore, this Environmental Assessment (EA) identifies and evaluates potential environmental impacts within the boundary of JBA associated with the proposed MD 4 at Suitland Parkway Interchange Construction to facilitate the requisite Air Force authorization. It has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and the President's Council on Environmental Quality (CEQ) regulations to implement NEPA (40 CFR Parts 1500-1508).

Environmental impacts of the MD 4 at Suitland Parkway interchange construction project are fully evaluated in the May 19, 2000, FHWA approved the Finding of No Significant Impact (FONSI) and the November 12, 2014 FHWA approved Environmental Reevaluation for the same project. Additionally, the National Park Service (NPS) evaluated the proposed action and alternatives in an EA published June 20, 2014. The NPS NEPA decision document is anticipated February 2015.

The JBA encompasses 4,346 acres located approximately five miles southeast of Washington, D.C., in southern Prince George's County, Maryland. Suburban, residential, commercial, and industrial development generally surrounds the base, reflecting JBA's proximity to Washington, D.C. and its location in what has been a continually growing metropolitan area since the base was established in the 1940s. With regard to infrastructure, the base is divided into western and eastern sections containing missions and administrative facilities; the two sections are separated by an airfield, with two active runways that are oriented north-south. The western portion of the base is the larger land area, with community facilities (including commercial services), a medical center, a large outdoor recreation/golf course facility, residential housing, and various administrative uses. The majority of the industrial uses are located in the eastern portion of the base. The proposed improvements would be constructed along the northeastern perimeter of the base.

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Figure 1: Project Location Map

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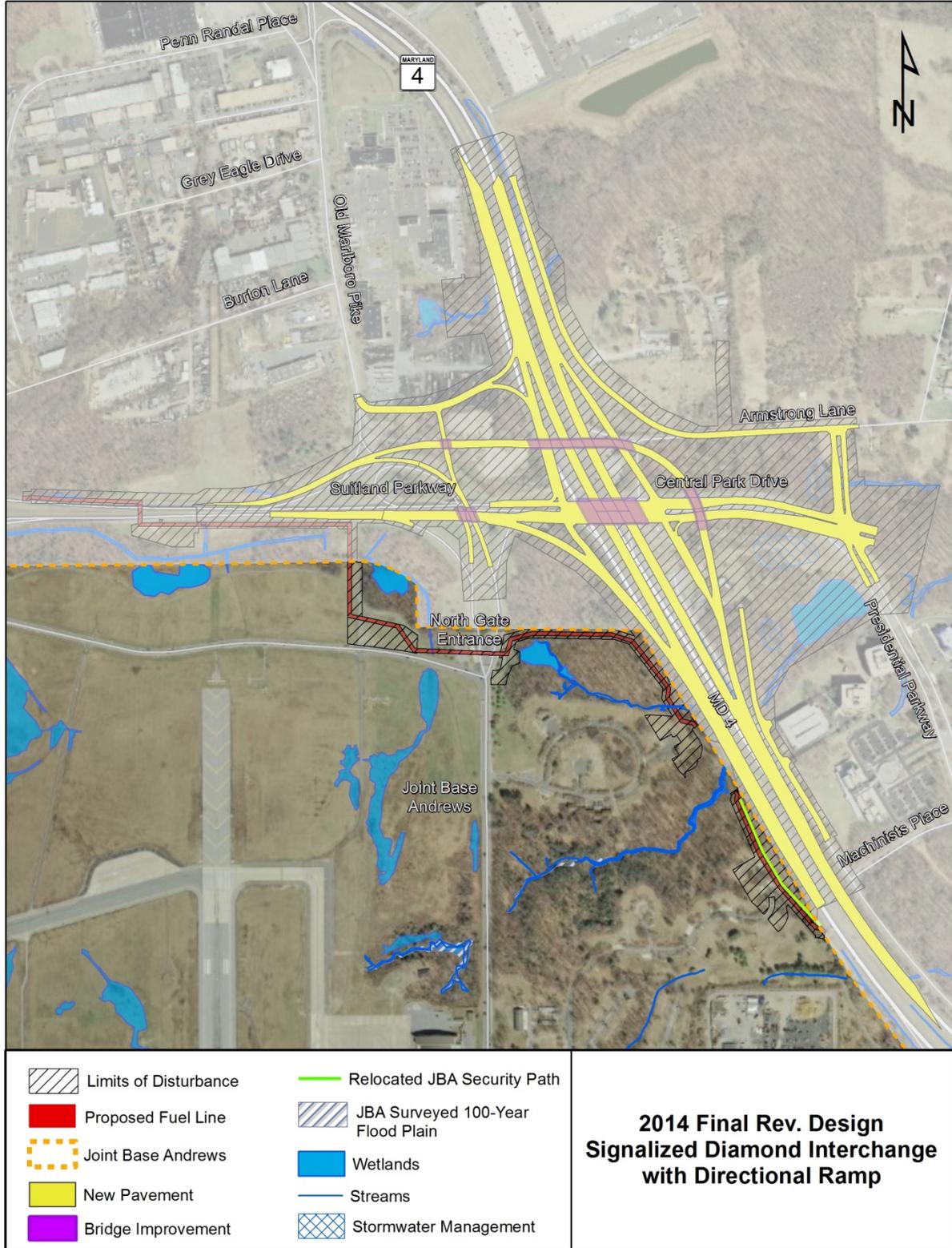


Figure 2: MD 4 at Suitland Parkway Interchange Construction Project - Overview

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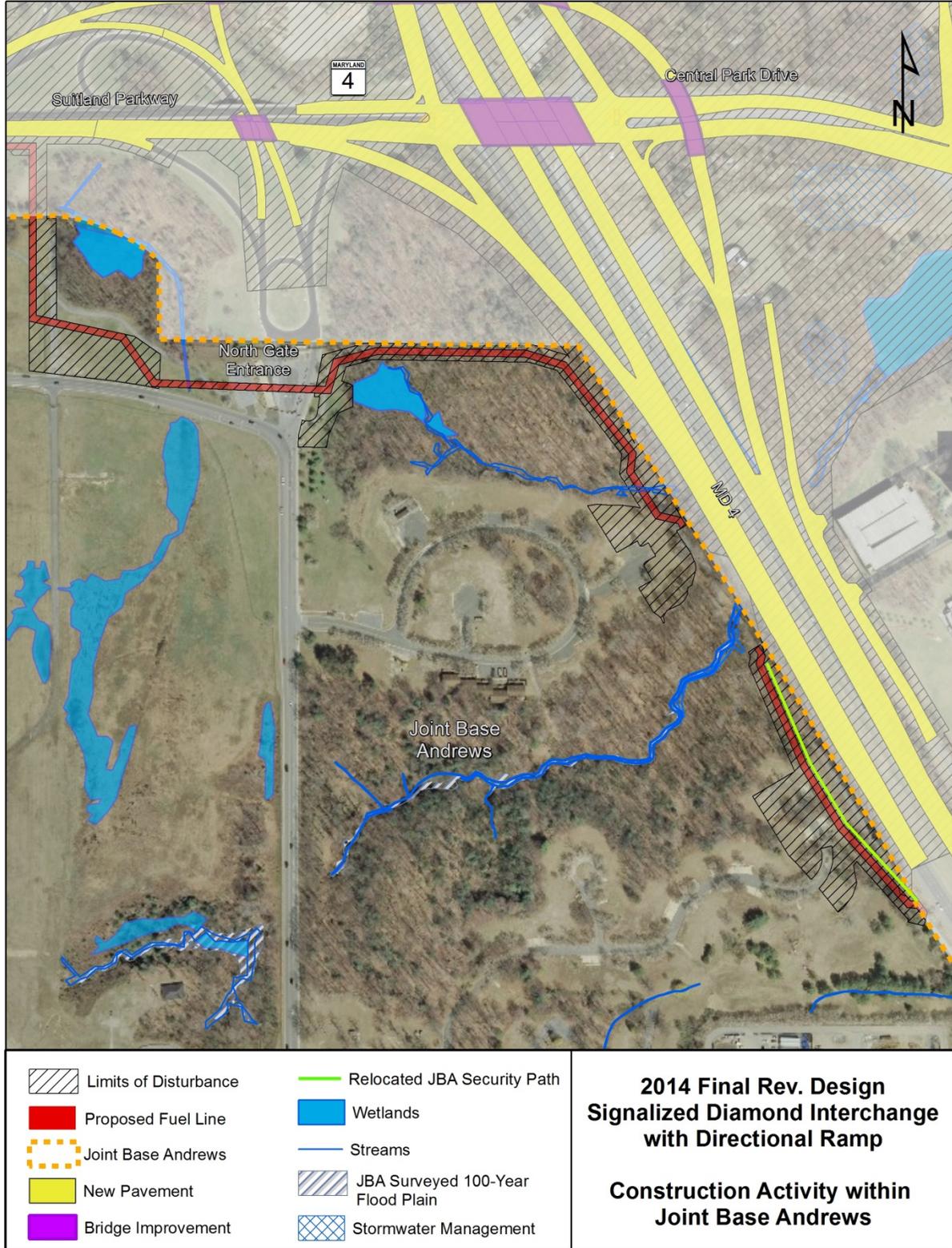


Figure 3: MD 4 at Suitland Interchange Construction Project - Within JBA

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### Environmental Assessment Purpose and Need for Action

### MD 4 at Suitland Parkway Interchange Construction on Joint Base Andrews-Naval Air Facility Washington, MD

In January 2010, a General Plan Update was published for JBA. As identified in the 2010 General Plan Update, the Air Force has developed a comprehensive planning process for actions related to land use, infrastructure development, and project sitings. The proposed action, while not identified within the General Plan Update, would not preclude the implementation of projects identified within the General Plan Update.

The mission of JBA is to provide contingency response capability critical to national security. This includes a secure installation with robust infrastructure that supports organizations on base. The vision of JBA is to provide a secure aerial gateway to the Nation's Capital for the President of the United States, Vice President, Executive Cabinet members, members of Congress, military leaders, foreign heads of state, and other dignitaries (JBA 2010).

The existing fuel line provides jet fuel to JBA necessary to support activities including maintenance of the emergency reaction rotary-wing airlift and other National Capital Region contingency response capabilities critical to national security, and for organizing, training, equipping and deploying combat-ready forces for Air and Space Expeditionary Forces (AEFs). The existing perimeter fence and security path support the security mission of JBA. The proposed relocation of these facilities is necessary to accommodate the MD 4/Suitland Parkway interchange construction project; however, the mission of these facilities and JBA would remain unchanged upon completion of construction.

### 1.2 PURPOSE OF THE PROPOSED ACTION

The purpose of the proposed action is to improve traffic operations and provide sufficient capacity to address existing and projected travel demands along the MD 4 corridor. Planned residential, mixed-use, and military development along the MD 4 corridor will cause the already congested MD 4 transportation system to further deteriorate, thereby increasing travel time, accident potential, and roadway congestion. The proposed improvements address safety and capacity requirements at the intersection of MD 4 and Suitland Parkway in order to alleviate existing deficiencies while accommodating projected traffic increases resulting from existing and planned growth in this area.

### 1.3 NEED FOR THE ACTION

This action is needed because the corridor currently experiences excessive traffic congestion, which is projected to increase as future development will bring more traffic to the area. Traffic congestion occurs along the MD 4 corridor as a result of ongoing development and growth in commuter traffic volumes from Anne Arundel County, Calvert County, and Southern Prince George's County to Washington, D.C. Level-of-Service (LOS) on expressways and freeways with uninterrupted flow conditions are ranked from Level A (free traffic flows at high speeds with low volume) to Level F (total breakdown of traffic flow with frequent delays at high traffic volumes). A 2011 traffic analysis indicated that MD 4 at Suitland Parkway had an Annual Average Daily Traffic (ADT) of 60,500 vehicles and operated at (LOS F during the AM and PM peak hours; eight percent of the existing and future volumes are comprised of truck traffic. Based on the 2011 traffic analysis for the MD 4/Suitland Parkway intersection, by 2030 ADT at the MD 4/Suitland Parkway intersection is projected to reach 84,450 vehicles.

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## 2.0 PROPOSED ACTION AND ALTERNATIVES

### 2.1 SELECTION STANDARDS

NEPA and CEQ regulations mandate the consideration of reasonable alternatives to the proposed action. “Reasonable alternatives” are those that also could be utilized to meet the purpose of and need for the proposed action. Per the requirements of 32 CFR §989, the Air Force EIAP regulations, selection standards are used to identify alternatives for meeting the purpose and need for the action. During the process of proposal development, a variety of factors and alternatives were considered.

The Air Force EIAP does not outline specific selection standards, but states “The Air Force may expressly eliminate alternatives from detailed analysis, based on reasonable selection standards. In consultation with the EPF, the appropriate Air Force organization may develop written selection standards to firmly establish what is a “reasonable” alternative for a particular project, but they must not so narrowly define these standards that they unnecessarily limit consideration to the proposal initially favored by proponents” (32 CFR §989). Based on consultation with JBA, criteria for the selection of action alternatives were identified. Criteria included the following considerations:

- To the extent practicable, action alternatives must address traffic operations and capacity needs as sited in the project purpose and need statement.
- To the extent practicable, the action alternatives must avoid or minimize impacts to resources, including: wetlands or floodplains, per Executive Order (EO) 11990 (Protection of Wetlands) and 11988 (Floodplain Management); Suitland Parkway, a National Register of Historic Places (NRHP) listed historic district; and JBA.
- Action alternatives must be sited to minimize operational constraints and safety concerns over the long term.
- In addition to the federal, state, and local regulations; any work proposed within the boundary of JBA must be compliant with JBA environmental programs plans and protocols.

On May 19, 2000, the FHWA approved a FONSI/Section 4(f) Evaluation for the MD 4 Project Planning Study. This study evaluated corridor improvements, including three alternatives for improvements at the MD 4 and Suitland Parkway intersection. The FONSI/4(f) documented that SHA’s Selected Alternative, a diamond roundabout interchange design, would have no significant impacts on the environment. Following FONSI approval, the project was divided into phases for design and construction. To date, only the MD 4/Suitland Parkway interchange phase of the project has been funded for design and construction. This phase is currently at the Final Review design stage (90% completion) and is listed in the current Transportation Improvement Plan (ID # 3547).

Upgrades to the MD 4/Suitland Parkway intersection would require a Special Use Permit from National Park Service (NPS) for temporary occupancy of NPS lands during construction. Additionally, construction of the proposed improvements, including the relocation of the fuel line, would require a permanent transfer of land from NPS to SHA via a land exchange. The transferred land would accommodate the expanded footprint of the proposed improvements including a portion of the relocated fuel line. Therefore, on behalf of NPS SHA prepared an EA (June 2014) that focused on the impacts on the proposed improvements on NPS lands. The

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June 2014 EA evaluated the 2000 FONSI Selected Alternative as well as the signalized diamond interchange with directional ramp design (which is the current design). This document identified the current design as the SHA and NPS preferred alternative. The NPS NEPA decision document is anticipated February 2015.

Further alternatives to the proposed action were evaluated in a Final Section 4(f) Evaluation (FHWA, November 10, 2014) that considered nine alternatives to the current design that would avoid or minimize impacts to Suitland Parkway. These alternatives as well as the 2000 FONSI Selected Alternative are briefly described in Table 1. Each of the Avoidance Alternatives described in Table 1, would minimize impacts to the Suitland Parkway and JBA. These alternatives would not require the relocation of the fuel line or the perimeter fence. However, Avoidance Alternatives 2 and 4 would not provide adequate operational or capacity improvements to accommodate existing or projected traffic volumes. Avoidance Alternative 3 would provide capacity and operational improvements; however, the Final Section 4(f) Evaluation determined that this alternative would have severe social, economic, and environmental impacts. Each of the Minimization Alternatives evaluated would require changes within the JBA boundary similar to the current design. These changes include ROW acquisition and the relocation of the fuel line, perimeter fence and security path to accommodate grading and elevation changes associated with the construction of a grade-separated interchange. This document concluded that the current design, the signalized diamond interchange with directional ramp, includes all possible planning to minimize harm resulting from the use of the Suitland Parkway (FHWA 2014a).

Following completion of the Final Section 4(f) Evaluation, SHA completed an Environmental Reevaluation of the MD 4 at Suitland Parkway interchange construction project, which was approved by FHWA on November 12, 2014.

SHA and FHWA documented in the studies described above an evaluation of alternatives to the proposed action that would avoid or minimize impacts of the overall project. The studies concluded that the alternatives evaluated would either not provide adequate traffic operations and capacity improvements to meet the project purpose and need or have environmental impacts that greatly exceeded those of the proposed action; therefore, the alternatives evaluated in this EA are limited to the No Action Alternative and the proposed action.

**Table 1: Alternatives Considered but Dismissed**

<b>ALTERNATIVE</b>	<b>DESCRIPTION</b>	<b>REASONS DISMISSED</b>
<b>2000 FONSI Selected Alternative:</b> Diamond Roundabout Interchange (also referred to as Minimization Alternative 7 in the Final Section 4(f))	MD 4 would be lowered and Suitland Parkway would be raised to an overpass, providing a grade separated interchange design. The interchange would consist of two roundabouts constructed on either side of the MD 4 overpass of Suitland Parkway, at the terminus of the MD 4 on- off-ramps. All traffic traversing the intersection would circumnavigate the two roundabouts located at the ramp terminals of the interchange.	Based on an evaluation of updated traffic projections for the corridor, the two-lane roundabout interchange design would, upon opening, operate at a failing level of service during both the AM and PM peak hours.

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<b>ALTERNATIVE</b>	<b>DESCRIPTION</b>	<b>REASONS DISMISSED</b>
<b>Avoidance Alternative 2:</b> Upgraded At-Grade MD 4 and Suitland Parkway Intersection East of Existing Intersection	The entire intersection would be expanded in order to accommodate existing and future traffic volumes as well as be realigned to the east. This would minimize impacts west of the existing intersection. The expansion of the intersection would be limited to adding a left-turn lane from MD 4 northbound to Suitland Parkway westbound resulting in three left-turn lanes. Additionally, two channelized right-turn lanes from eastbound Suitland Parkway to southbound MD 4 could be constructed without impacting Suitland Parkway property.	This alternative would provide some increase in capacity at the intersection; however, these minor improvements would not address the substantial increase in traffic volumes. The intersection would also maintain the same number of conflict points. The addition of turn lanes would exacerbate the existing difficulties for pedestrians and bicyclists navigating across MD 4.
<b>Avoidance Alternative 3:</b> Shift Signalized Diamond Interchange with Directional Ramp East	The alignment of MD 4 would be shifted east and an interchange would be constructed with the signalized diamond and directional ramp design. This alignment shift would minimize impacts west of the existing intersection. It would require the realignment of Presidential Parkway, which would intersect with Central Park Drive at an at-grade intersection east of the directional ramp.	This alternative would displace four office buildings and the Prince George's County storm water management pond would need to be reconstructed.
<b>Avoidance Alternative 4:</b> Extend Presidential Parkway to Connect to an Expanded Dower House Road Interchange	Suitland Parkway, after bridging over MD 4, would tie into Central Park Drive and Presidential Parkway. Presidential Parkway would be extended south to connect with MD 4 at a proposed interchange with Dower House Road. There would be no access provided between MD 4 and Suitland Parkway.	The projected increase in traffic from this alternative on Presidential Parkway would substantially exceed the functional classification of this roadway. Increased traffic volumes would increase conflict points and present a condition inconsistent with driver expectations coming off of Suitland Parkway. Traffic volume would result in operational failure at the intersections on either side of the interchange. Impacts to existing and planned developments east of MD 4 would result in severe economic impacts.
<b>Minimization Alternative 1:</b> Single-Point Urban Interchange	Retaining walls would be constructed to allow the placement of MD 4 on- and off- ramps closer to MD 4. Access at the north and southbound on- and off-ramps would be controlled through a single signalized intersection.	This alternative would not provide adequate capacity for the peak hour movement from northbound MD 4 to westbound Suitland Parkway. A large pavement area in the middle of the intersection would present challenges for bicyclists attempting to get through the entire intersection before the signal changes. This design would not be compatible with pedestrian or bike access.
<b>Minimization Alternative 2:</b> Diverging Diamond Interchange	The MD 4 on-and off- ramps would converge with the Suitland Parkway/Central Park Drive main route at signalized intersections on either side of the MD 4 overpass. This interchange design would require traffic on the Suitland Parkway/Central Park Drive overpass to drive on the left side of the road. Signals on either side of the overpass would control this movement. This would allow vehicles from the MD 4 off-ramps continuous flow turn lanes in both directions onto Suitland Parkway.	This alternative would require extensive driver education to familiarize users with the operations of this interchange, which would present potential safety concerns. Additional signage, lighting, and pavement would be needed, beyond those typical of a standard diamond interchange. Safety concerns would arise from the complicated pedestrian route for crossing the bridge.

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<b>ALTERNATIVE</b>	<b>DESCRIPTION</b>	<b>REASONS DISMISSED</b>
<b>Minimization Alternative 3:</b> Urban Diamond Interchange	Retaining walls would be used between each MD 4 on- and off-ramp and the MD 4 mainline in order to place the interchange ramps closer to MD 4. The ramps would meet at signalized intersections located above, and on either side of, MD 4.	The signals at the interchange ramps termini would not accommodate the existing and future traffic volumes for this movement, resulting in lengthy intersection queues along the ramp from northbound MD 4.
<b>Minimization Alternative 4:</b> Table Roundabout Interchange	The configuration of the intersection would include a large roundabout at the center of the MD 4 and Suitland Parkway interchange that would address all turning movements. A direct ramp from Suitland Parkway eastbound to MD 4 southbound would be provided. The roundabout would be constructed at an elevated grade over MD 4 requiring the construction of two bridges spanning MD 4.	This alternative would result in operational breakdown due to the high volume of traffic entering the roundabout. There would also be pedestrian and bike safety concerns through or around the roundabout from multiple conflict points.
<b>Minimization Alternative 5:</b> Partial Cloverleaf Interchange	Under this alternative, the MD 4 mainline would be shifted 75 feet east of its existing alignment. Loop ramps would be constructed in both the north and south quadrants on the west side of MD 4. It would also require three separate bridges in addition to numerous access ramps.	This alternative would not provide adequate capacity for the volume of traffic circumnavigating the interchange from northbound MD 4 to westbound Suitland Parkway. The weaving areas compromise the operations of this design.
<b>Minimization Alternative 6:</b> Folded Diamond Interchange	Double ramps in both the northeast and southwest quadrants of the interchange would be constructed. The approaches of Suitland Parkway and Presidential Parkway would each be widened to ten lanes in order to allow for adequate navigation of the ramps on either side of MD 4.	This alternative would allow adequate traffic capacity and improve safety for vehicles, bikes, and pedestrians; however the Suitland Parkway Bridge over the entrance ramp to JBA North Gate would undergo full reconstruction. The wide roadway, complex design, and numerous ramps would reduce the area of impact to Suitland Parkway, but would cause greater harm to the character of the Parkway.
<b>Minimization Alternative 8:</b> Eliminate Directional Ramp	A traditional diamond interchange would be constructed without the directional ramp to facilitate travel from northbound MD 4 to Suitland Parkway. This alternative would require all traffic from northbound MD 4 onto westbound Suitland Parkway make a left-turn at the signalized intersection located on the east side of the interchange.	This alternative would not accommodate existing and future traffic volumes, resulting in lengthy intersection queues along the ramp from MD 4.
<b>Alternative 9:</b> Eliminate Channelized Right-Turn Ramp	Under this alternative, the channelized right-turn ramp from Suitland Parkway to southbound MD 4 would be eliminated. All traffic traveling from eastbound Suitland Parkway to southbound MD 4 would need to turn right at the signalized intersection on the west side of MD 4.	This alternative would not accommodate existing and future traffic volumes, resulting in lengthy intersection queues along Suitland Parkway.

**2.2 PROJECT AREA HISTORY**

Construction of the airfield that was to become JBA began in 1942. The installation became operational in May 1943 as the Camp Springs Army Airfield, airfields were operational in 1943, with 5,500 feet of runways by 1944. The name was changed to Andrews Field in 1945. When the Air Force became a separate service in 1947, the installation was renamed Andrews Air

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Force Base. The base serves as a travel and support center for the President of the United States and other distinguished federal and foreign civilian and military dignitaries. Airfields were operational in 1943, with 5,500 feet of runways by 1944. In 2009, Andrews Air Force Base merged with Naval Air Facility Washington to form JBA.

The project area is in the northeast quadrant of JBA. JBA has two complete runway systems located in a north/south orientation. The project is located at the north end of the eastern runway system, Runway 01R/19L, which is 9,755 feet long with 1,000-foot overruns on each end. In addition to the runway, the project area contains the JBA North Gate, which provides access for government employees and base residents during restricted hours, portions of Perimeter Road (the only primary roadway connecting the two sides of the base), a perimeter security path and fencing supports security monitoring throughout the base. The project area includes limited vegetation cover including maintained and forested areas. Based on a review of historical topographic maps and aerial imagery, changes within the immediate project area have been minimal since construction of the air force base in 1942. Residential housing occupied the area immediately east of the JBA North Gate; however, these facilities have been demolished. Roadways and utilities are all that remain of the former housing development.

### 2.3 PROPOSED ACTION

SHA proposes improvements that would construct a grade-separated, signalized diamond interchange with a directional ramp at the intersection of MD 4 and Suitland Parkway/Presidential Parkway. The profile of Suitland Parkway and existing Presidential Parkway would be raised, while the profile of MD 4 would be lowered, allowing Suitland Parkway and existing Presidential Parkway to travel over MD 4.

Elements of the current design that would occur within the existing boundary of JBA include the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path. SHA would require Air Force issuance of a temporary construction easement to facilitate construction within the boundary of JBA.

NuStar Energy, L.P. owns and operates an eight-inch high pressure petroleum products line (fuel line) that services JBA. The existing fuel line runs parallel to and across Suitland Parkway and MD 4, entering JBA south of the project area. Construction of the MD 4/Suitland Parkway interchange would require several sections of the existing fuel line to be removed and relocated. 3,658 linear feet of fuel line on NPS property would be removed, extending from a tie-in location adjacent to the westbound lanes of Suitland Parkway to the existing JBA perimeter fence crossing, which is located adjacent to southbound MD 4. New fuel line (2,060 linear feet) would be laid between the tie-in location and a new crossing under the JBA perimeter fence. The new fuel line would extend south and southeast inside the perimeter of JBA for approximately 703 feet toward the JBA North Gate Entrance where the fuel line would be installed easterly via a 496 feet horizontal directional drilling from tie-in to tie-in underneath the existing JBA North Gate entrance. The fuel line would continue east and southeast along the inside of the JBA perimeter fence for 1,335 feet to its tie-in with the existing fuel line. A second 891-foot long segment of fuel line extending further southeast along MD 4 would be relocated immediately west of its existing location to accommodate the proposed grading associated with the MD 4 construction. The result would include the installation of a total of 3,425 feet of fuel line within the JBA perimeter fence.

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Additionally, widening along the southbound MD 4 mainline would require the relocation of approximately 720 linear feet of the JBA perimeter fence and security path up to 25 feet west of their existing location and the extension of an existing culvert by approximately 15 feet.

The proposed construction activities would require a temporary construction easement for approximately 7.7 acres. A perpetual easement for less than 0.1 acre and a revertible easement for approximately 0.6 acre would be required to accommodate roadway widening, access ramps and associated grading.

Construction activities within the JBA perimeter would be staged and maintained as small as possible and free of debris. Construction staging would be coordinated with JBA staff prior to initiating construction.

### 2.5 NO ACTION ALTERNATIVE

The No Action Alternative describes the action of continuing the present transportation conditions. Under the No Action Alternative the existing at-grade intersection would remain and there would be no need to relocate the fuel line, perimeter fence, or security path. The intersection of MD 4 and Suitland Parkway would continue to operate at a LOS F, and congestion would remain an issue at the intersection. This condition would be exacerbated by projected traffic volume increases as a result of area and regional increases in development.

### 2.6 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

As discussed in Section 2.1, FHWA and SHA completed multiple studies documenting alternatives to the signalized diamond interchange with directional ramp design (which is the current design). These studies concluded that the current design best meets the project purpose and need. Additionally, the majority of the alternatives evaluated would require the relocation of the fuel line, perimeter fence, and security path, similar to the current design, to accommodate grading and elevation changes associated with the interchange construction.

Two concepts for the fuel line relocation were presented to the Air Force in Fall 2013. The first would align the relocated fuel line along the JBA perimeter. The second alternative would align the relocated fuel line along the Tyler Road tree line, at the southern extent of the project area. The Air Force determined that locating the fuel line along the base perimeter would provide adequate security clearance for the fuel line (a minimum of 30 feet). Additionally, siting the fuel line relocation along the perimeter would maintain siting flexible in the Tyler Road area. As a result, the JBA Facilities Board Working Group recommended that perimeter road location for approval December 12, 2013. JBA Facilities Board provided approval of the perimeter road site for the fuel line relocation December 18, 2013.

Therefore, the alternatives evaluated in this EA are limited to the proposed action (which is the current design) and the No Action Alternative.

### 2.7 REGULATORY COMPLIANCE AND PERMIT REQUIREMENTS

A soil erosion and sediment control (SE/SC) plan will be prepared in accordance with Maryland Department of the Environment (MDE) *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control*. Typically an SE/SC plan would include permanent mitigation

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measures such as the establishment of temporary or permanent vegetative cover, slope protection structures, channel stabilization of open channels and existing streams or ditches, sediment barriers across or at the toe of slopes, and protection of storm sewer line inlets to intercept and retain sediment. Implementation of such measures during construction would minimize sediment runoff. In addition, temporary best management practices (BMPs), such as installation of silt fence and sediment trapping or filtering would be utilized during construction to minimize erosion and sedimentation from ground disturbing activities that expose bare soil. Temporary BMPs would be used only during construction and would be removed once the disturbed area has been permanently stabilized, if applicable.

Stormwater management for the MD 4/Suitland Parkway interchange project would be prepared and implemented in accordance with the 2000 Maryland Stormwater Design Manual, Volumes I & II (MDE 2000), addressing long-term stormwater runoff.

SHA prepared and submitted a Joint Permit Application (JPA) June 9, 2014 for impacts resulting from the MD 4/Suitland Parkway interchange project, including the fuel line relocation. This application will be used to secure a U.S. Army Corps of Engineers (USACE) Section 404 Permit and MDE Section 401 Water Quality Certification for the project.

Recommendations made by the Maryland Department of Natural Resources (DNR) Environmental Review Unit (dated April 29, 2013) regarding fish species protection measures for the Unnamed Tributary to Cabin Branch, Classification Use 1, include a no instream work restriction during the period of March 1 through June 15, inclusive, during any year. In addition, existing riparian vegetation in the area of the stream channel will be preserved as much as possible to maintain aquatic habitat and provide shading to the stream. No areas designated for the access of equipment and for the removal or disposal of material would be located within the stream and associated riparian vegetation. Temporarily disturbed areas should be restored and re-vegetated. The use of concrete or grouting within streams, if determined necessary, would be managed to assure curing processes do not impact the stream or modify stream pH.

Construction activities occurring within the boundary of JBA would be coordinated with JBA 11 CES/CEIE to ensure compliance with all JBA environmental programs, plans and protocols (Table 2).

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**Table 2: JBA Environmental Plans**

<b>RESOURCE AREA</b>	<b>TITLE</b>	<b>DATE</b>
Air Quality	Air Emissions Inventory	2013
Noise, Land Use and Planning	Air Installation Compatible Use Zone (AICUZ) Study	2007
	General Plan Update*	2010
Hazardous Materials	Asbestos Management Plan	2008
	Lead-Based Paint Management Plan	2009
	Hazardous Waste Management Plan	2014
	Facility Response Plan	2011
	Pollution Prevention Plan	2010
	Integrated Emergency Management Plan	2013
	Integrated Solid Waste Management Plan	2013
	Spill Prevention Control and Countermeasure Plan	2011
Natural Resources	Integrated Natural Resources Management Plan	2015
Cultural Resources	Integrated Cultural Resources Management Plan	2009
Stormwater	Stormwater Pollution Prevention Plan	2011

\* Update in progress, Installation Development Plan anticipated completion, June 2015.

Source: Personal Communication from Anne Hodges, 11 CES/CEIE

### 3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

This chapter describes the current conditions of the environmental resources, either man-made or natural, and the potential environmental consequences of implementing the Preferred Alternative or the No Action Alternative.

Project impacts have been evaluated in this EA using the Council on Environmental Quality (CEQ) definition of significance (40 CFR 1508.27) per the National Environmental Policy Act (NEPA). According to this definition, significance requires consideration of both the context and intensity of impacts. Context refers to the spatial (e.g., region or location) and temporal (e.g., short or long term) setting of the proposed action. Intensity refers to the severity of impact.

- a) **Context-** This means the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale. Both short- and long-term effects are relevant.
- b) **Intensity-** This refers to the severity of impact. More than one agency may make decisions about partial aspects of a major action.

Based on the scope of the proposed action, issues with minimal or no impacts were identified through a preliminary screening process. The following describes those resource areas not carried forward for a detailed analysis, along with the rationale for their elimination.

Regardless of the alternative selected, the following resources would not be affected by the proposed action and are not discussed in detail in this EA:

- **100-Year Floodplain:** Floodplains are generally areas of low, level ground on one or both sides of a stream channel that are subject to either periodic or infrequent inundation by flood waters. Floodplains are regulated by the Federal Emergency Management Agency (FEMA) with standards outlined in 44 CFR Part 60.3. EO 11988 (Floodplain Management) requires agencies to assess the effects that their actions may have on floodplains and to consider alternatives to avoid adverse effects and incompatible development on floodplains. FEMA has not developed Flood Insurance Rate Maps for JBA. In 2005, JBA completed a floodplain study which indicated that there are seven floodplains located within the boundaries of JBA (JBA 2010). The floodplains are generally limited to small streams and the area immediately adjacent to these streams. The proposed action would not occur within the 100-year floodplain of the unnamed tributary of Cabin Branch (Figure 4.2, 2010 General Plan Update; JBA 2010); therefore, this topic is dismissed from further analysis.
- **Groundwater:** Groundwater recharge occurs primarily through precipitation. Groundwater flow is believed to be down-gradient toward local streams or downward toward deeper underlying aquifers. Stormwater management for the MD 4/Suitland Parkway interchange project would be prepared and implemented in accordance with the 2000 Maryland Stormwater Design Manual, Volumes I & II (MDE 2000), addressing long-term stormwater runoff and groundwater recharge. The proposed action, including the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path will not impact groundwater resources; therefore, this topic is

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dismissed from further analysis.

- **Geology and Topography:** Much of the surficial geology at JBA is comprised of the late Tertiary Period Pliocene Epoch (about 7 million years old) upland deposits. These deposits consist of irregularly bedded cobbles, gravel, and fine sand intermixed with silt or clay, and vary in thickness from 10 feet to 20 feet. Based on the construction methods proposed to relocate the existing fuel line and JBA perimeter fence and security path, no impact to geology or topography is anticipated. The proposed construction methods will only disturb the surface soil horizons and do not extend into the deeper geologic formation. Therefore, no impacts to geology or subsurface soils are expected from the construction of the proposed action.

The proposed action, including the relocation of the fuel line, JBA perimeter fence and security path will temporarily alter the existing topography. However, the site of the proposed action is generally flat and has no special qualities; grading will be limited and the impacts to topography would be negligible; therefore, this topic is dismissed from further analysis.

- **Airspace and Airfield Operation:** On most Air Force installations, the airfield is not only the dominant land use, but is usually the very reason for the existence of the installation. The airfield land use typically consists of the entire airfield pavement system (runway, taxiway, and apron), related open space, navigational aids, and all imaginary airfield and airspace clearance surfaces. The size and configuration of an airfield largely depend on topography, climate, meteorological factors, land availability, and weapons system characteristics. JBA has two complete runway systems, each with its own north/south runway, parallel taxiway, and apron. The two parallel taxiways, serve the west and east ramps, respectively, via a network of three connecting ladder taxiways. Facilities housing airfield operations and maintenance activities are located parallel to the west and east aprons.

The proposed action would occur northeast of the airfield and would not result in changes to the airfield environment or airspace operations; therefore, this topic is dismissed from further analysis.

- **Environmental Justice:** EO 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* directs federal agencies to focus attention on human health and environmental conditions in minority and/or low-income communities. Potential health and safety impacts that could disproportionately affect children are considered under the guidelines established by EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. The 2014 Environmental Reevaluation evaluated the project area for the presence of minority and low-income populations. Based on an evaluation of demographic data for the project area it was determined that environmental justice populations are present within the project area. However, the proposed improvements are generally within the same location as existing facilities, no particular residential areas, business area, or community facility is adversely impacted by the proposed improvements. Additionally, there are no concentrations of impacts in any one particular area. Any adverse impacts resulting from the project would not disproportionately impact communities within the project area meeting the environmental justice threshold; therefore, this topic is dismissed from further analysis.

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- **Socioeconomics:** Construction activities may provide a temporary benefit to the local economy with the hiring of construction workers and an increase in local revenue generated by the construction workers and activities. Improved traffic operations and capacity would result in transportation benefits, including improved mobility and efficiency of the area transportation network to move traffic volumes, resulting in a minor economic benefit to the project area, no adverse impact to the socioeconomic environment would occur; therefore, this topic is dismissed from further analysis.
- **Visual Resources:** Construction activities within the JBA perimeter would be staged within the vicinity of the former housing development, located east of the JBA North Gate. All staging areas would be maintained as small as possible and free of debris. This area is east of the perimeter road and located downslope towards MD 4; therefore, visual impacts for JBA visitors would be negligible. All construction would be completed in accordance with JBA specifications. The proposed action would have no permanent impact on visual resources; therefore, this topic is dismissed from further analysis.
- **Bird-Aircraft Strike Hazard (BASH):** JBA is an area of high bird-aircraft strike hazard (BASH) potential, as the base is located in the Atlantic flyway near several wildlife refuges. Migratory birds, especially waterfowl, are common at JBA due to the ponds and wetlands and the proximity of JBA to the Chesapeake Bay. Migratory birds are afforded special status under the Migratory Bird Treaty Act of 1918. Additionally, both resident and migratory populations of bald eagles (*Haliaeetus leucocephalus*), occur in the region. Effective August 8, 2007, under the authority of the Endangered Species Act of 1973, as amended the U.S. Fish and Wildlife Service delisted the bald eagle in the lower 48 States of the United States from the Federal List of Endangered and Threatened Wildlife. However, the bald eagle will still be protected by the Bald and Golden Eagle Protection Act, Lacey Act and the Migratory Bird Treaty Act. Also, resident (non-migrating) Canada geese are of particular concern due to their large size and growing populations.

BASH is defined as the threat of aircraft collision with birds and other wildlife during aircraft operations. Most birds fly close to ground level; correspondingly, most BASH incidents occur at low altitudes in the immediate vicinity of the airfield. *The Bird/Wildlife Aircraft Strike Hazard Plan* provides guidance to minimize wildlife-aircraft strikes (JBA, 2006). Management practices include flight crew awareness, take-off/landing scheduling, measures to preclude the development of wildlife populations in the airfield, vegetation management such as not planting bird-attracting species, a sound system that includes air cannon and predator calls, and a trained dog and handler to disrupt flocks on the ground are used before lethal means. In order to respond to safety concerns, JBA has also obtained a USFWS Migratory Bird Depredation Permit to reduce the number of geese on site.

The proposed action is not expected to impact the BASH plan. The proposed action would not include any unusual use of airspace or the placement of elevated structures that might be attractive to birds, nor will it include any significant change to wildlife habitat or forested area. In accordance with specific regulations governing the types of plant material available for use on site; revegetation species would be selected based on their expected height at maturity and their limited attraction of birds. Fruiting species and large groupings of evergreens would not be planted. Revegetation would be coordinated

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with JBA. Preventative measures to eliminate interference with migratory birds and other wildlife would be implemented in accordance with the Migratory Bird Treaty Act, DNR requirements and relevant guidance during construction. Therefore, this topic is dismissed from further analysis.

- **Air Quality:** The project area is located in the Metropolitan Washington Air Quality Control Region. The U.S. Environmental Protection Agency (EPA) has designated particulate matter less than 10 micrometers (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and lead (Pb) as in attainment of the NAAQS. The EPA has designated Washington D.C. as a moderate non-attainment area for the criteria pollutant ozone (O<sub>3</sub>) and as a non-attainment area for particulate matter less than 2.5 micrometers (PM<sub>2.5</sub>). This airshed is in maintenance for carbon monoxide (CO). The SHA completed an Air Quality Analysis as part of the environmental studies for the MD 4 corridor study in October 2013. The Air Quality Analysis determined that the proposed improvements to MD 4 at the Suitland Parkway intersection in Prince George's County would meet the Clean Air Act and 40 CFR 93.109 requirements for PM<sub>2.5</sub> and CO. A more detailed hot-spot analysis is not required because the project was not found to *be a project of air quality concern* as defined under 40 CFR 93.123(b)(1). The project would not cause or contribute to a new violation of the PM<sub>2.5</sub> or CO State and National ambient air quality standards, or increase the frequency or severity of an existing violation. This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special mobile source air toxics concerns. As such, this project would not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in mobile source air toxics impacts of the project compared to that of the no-build alternative.

In November 2013, the Interagency Consultation Group, consisting of FHWA, EPA, MDE and the Metropolitan Planning Organization, concurred with this determination. The report was posted on SHA's website for public comment in December 2013. No comments were received. Based on these findings, the action alternatives would have negligible effects on air quality. Therefore, this impact topic has been dismissed from further detailed analysis in this EA.

- **Climate:** The proposed action will be built in accordance with applicable EOs and Air Force directives on sustainability. Based on traffic analysis completed by SHA in 2011, the existing average ADT volume for the MD 4 and Suitland Parkway intersection is 60,500. This volume is projected to increase to an ADT of 84,450 vehicles in 2030, the design year for the project. Construction activities related to the action alternatives would temporarily increase greenhouse gas emissions. However, the action alternatives would reduce current congestion allowing vehicles to travel at more fuel efficient speeds and result in an overall decrease of greenhouse gas emissions. An increase in fuel efficient technology and more stringent standards would decrease greenhouse gas emissions overall. The project would not be a contributing factor to climate change. The proposed action would not have any short-term or long-term adverse impact on climate; therefore, this topic is dismissed from further analysis.
- **Clear Zones:** Accident potential zones, rectangular zones extending outward from the ends of active runways at military bases, delineate those areas recognized as having the greatest risk of aircraft mishaps, most of which occur during takeoff or landing. Clear

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zones are the areas closest to the end of the runway, which is considered the most hazardous area. At JBA, clear zones extend 3,000 feet from the end of the runway and 1,500 feet on either side of the runway centerline. Permissible uses, structure heights, and the construction material in these areas are specifically prescribed in order to protect both the safety of the aircrews and the safety of persons and property on the surface. All construction would occur a minimum 250 feet from the centerline of the runway (landmark - depressed curb in the field). Therefore, this topic is dismissed from further analysis.

### 3.1 AIR INSTALLATION COMPATIBLE USE ZONE (AICUZ)/LAND USE

#### *Affected Environment*

Current land use at JBA is the result of a development pattern that began in the 1940s. The airfield separates the base into western and eastern halves. Facility development and supporting infrastructure have evolved over time as missions and requirements have changed. During that time, the base has maintained adequate functional relationships with relatively few land use conflicts, suggesting that land use planning principles have been followed during the installation's historical development. The land use categories at JBA presently include: administrative; aircraft operations and maintenance; airfield; community; industrial; medical; open space; outdoor recreation; residential; and water. The aircraft operations and maintenance land use has developed adjacent to the east and west flight lines, with few unrelated facilities occupying this prime real estate. The base contains a consolidated community center that is accessible to west side workers and residents. Industrial uses are consolidated in a few contiguous areas, the largest being the base supply, civil engineering, and transportation facilities on the east side. Administrative uses are split between the two halves of the base. Residential areas are located primarily along the western perimeter. The location of the proposed action is within designated Airfield and Open Space land use.

The Maryland coastal zone is comprised of the land, water and subaqueous land between the territorial limits of Maryland in the Chesapeake Bay, Atlantic Coastal Bays and the Atlantic Ocean, as well as the towns, cities and counties that contain and help govern the thousands of miles of Maryland shoreline according to the Maryland DNR Chesapeake and Coastal Program website (<http://www.dnr.state.md.us/ccp/index.asp>). This area encompasses the entirety of Prince George's County, including the project area. Under the Coastal Zone Management Act; federal actions, including federal financial assistance activities, that have reasonably foreseeable coastal effects must be consistent with the enforceable policies of state coastal management programs as outlined in *Maryland's Enforceable Coastal Policies* (April 8, 2011). The Maryland coastal program is a networked program. MDE handles Federal Consistency Reviews. The proposed construction would not be located within the Maryland Department of Natural Resources (DNR) defined Chesapeake Bay Critical Area.

#### *Environmental Consequences*

The proposed action would require a temporary construction permit of 7.7 acres for the use of JBA property during construction. Long-term impacts to land use would include a perpetual easement of less than 0.01 acre and a revertible easement of 0.6 acre. The easements are necessary to accommodate grading for the grade-separate interchange and associated roadway widening. A temporary increase in noise levels would result from the proposed interchange construction. No residences or businesses are located within the project area, nor are there any approved development plans or other planned noise sensitive receivers (e.g.,

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child care centers, schools, etc.) in the study area. Following construction land use within the project area would remain similar to the existing use. Relocation of the fuel line, perimeter fence, or security path would have no impact on planned development/use within JBA.

As outlined in *A Guide to Maryland's Coastal Zone Management Program Federal Consistency Process*, ([http://www.dnr.state.md.us/bay/czm/fed\\_consistency\\_guide.pdf](http://www.dnr.state.md.us/bay/czm/fed_consistency_guide.pdf)) the state's permit decision constitutes the federal consistency decision for this project. A Federal/State Joint Permit Application was submitted for MDE review June 6, 2014, certifying that the proposed action would be consistent with Maryland's Coastal Zone management Program (**Appendix A**). This document is under review, with approval anticipated Winter 2015. No work on the project would proceed until issuance of a permit authorization from JPA, ensuring that the proposed action is consistent with the Coastal Zone Management Act.

Therefore, the sum of the activities comprising the proposed action would have short- and long-term negligible impacts on AICUZ/Land Use within the project area. Based on the above analysis, impacts on land use would not be significant in either context or intensity as defined by CEQ.

Under the No Action Alternative, the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would not be built; therefore, there would be no changes to land use or zoning.

### 3.2 STREAMS

#### *Affected Environment*

JBA is located within multiple sub-basins in the Mid-Atlantic Region (JBA 2012). Most of JBA is in the Potomac River Sub-Region (Hydrologic Unit Code [HUC] 0207), while the eastern edge of JBA is in the Upper Chesapeake Sub-Region (HUC 0206). The uplands that characterize the topography of JBA create a watershed divide, with the western portion of the base generally draining to the Potomac River (HUC 02070010) and the eastern portion generally draining to the Patuxent River (HUC 02060006), which is located approximately seven miles east of the base. Surface water at the existing project location and the location of the proposed action drains to the southwest to an unnamed tributary in the headwaters of Cabin Branch.

#### *Environmental Consequences*

The proposed action, the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would have minor impacts to stream resources. Waters located within the boundary of JBA that would be impacted by the proposed action include an unnamed tributary to Cabin Branch, which is classified as Use I waters (support of estuarine and marine aquatic life and shellfish harvesting). The proposed fuel line relocation and culvert extension would include 47 linear of permanent impacts and 120 linear of temporary impacts to Waters of the United States (WUS). Implementation of erosion and sediment control practices, such as installation of a silt fence, sediment trapping or filtering, and other best management practices (BMPs), would minimize temporary impacts to water quality and wetlands during construction. Per Maryland Department of Natural Resources (DNR) correspondence dated April 29, 2014, no instream work is permitted in Use I streams from March 1 through June 15, inclusive, during any year.

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The SHA has coordinated mitigation for stream impacts associated with the MD 4/Suitland Parkway interchange project, including the fuel line relocation, by providing stream stabilization at Marbury Drive in District Heights, Maryland. The proposed stream restoration project is located off-site, approximately 2.5 miles northwest of the project area. The proposed mitigation will include approximately 1,650 linear feet of stream restoration and 12,500 square feet riparian buffer enhancement. In August 2013, SHA confirmed agency support of the proposed mitigation. Therefore, the proposed action would have short- and long-term negligible adverse impacts to streams. Based on the above analysis, impacts on streams would not be significant in either context or intensity as defined by CEQ.

Under the No Action Alternative, the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would not be built; therefore, no impacts to stream resources would occur.

### 3.3 WETLANDS

#### *Affected Environment*

Wetlands are protected as a subset of the “waters of the United States” under Section 404 of the Clean Water Act (CWA), as well as EO 11990 (Protection of Wetlands) which requires federal agencies to take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the beneficial values of wetlands. The U.S. Army Corps of Engineers (USACE) defines wetlands as “those areas that are inundated or saturated with ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328).”

Numerous wetland surveys have been conducted at JBA within the last 15 years. These included: a delineation report completed in 2004, a formal jurisdictional delineation completed in 2010, a 2013 delineation report, and a 2014 jurisdictional determination. The culmination of these studies identified 150.9 acres of jurisdictional wetlands on JBA (JBA 2014). Based on a review of the 2004 wetlands and waters delineation reports, approved jurisdictional determinations, and recent field verification, a number of wetlands and waters features are located adjacent to the project area.

#### *Environmental Consequences*

Based upon a review of GIS data layers provided by JBA and the design plans for the proposed action (Figure 3); no wetlands are located within the limit of disturbance for the proposed action. Therefore, the construction activities associated with the proposed action would have no impact to wetlands within the boundary of JBA. Based on the above analysis, impacts on wetlands would not be significant in either context or intensity as defined by CEQ.

Under the No Action Alternative, the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would not be built; therefore, no impacts to wetlands would occur.

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### 3.4 OCCUPATIONAL SAFETY AND HEALTH

#### *Affected Environment*

Construction jobsite safety and the prevention of accidents is an ongoing activity for any Air Force jobsite. All contractors performing construction activities are responsible for complying with Air Force safety and Occupational Safety and Health Administration General Plan Environmental Assessment for JBA *Final EA 3-19 April 2011* (OSHA) 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 HAZMAT, use of personal protective equipment (PPE), 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; to monitor exposure to workplace chemical (e.g., asbestos, lead, HAZMAT), physical (e.g., noise propagation), and biological (e.g., infectious waste) agents; to recommend and evaluate controls (e.g., ventilation, respirators); to ensure personnel are properly protected or unexposed; and to 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.

#### *Environmental Consequences*

The proposed action, including the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence would be constructed in accordance with OSHA standards. Although no adverse impacts on the occupational safety and health of personnel at JBA, visitors to JBA, or the public in general would be expected from implementing the proposed action, construction activities always have some inherent risk for worker safety. To prevent such impacts, construction contractors would be required to establish and maintain safety programs. All contractors performing construction activities would be responsible for complying with U.S. Air Force safety rules as well as OSHA regulations. They would be required to conduct construction activities in a manner that would not pose any undue risk to workers or personnel. Contractor responsibilities would include reviewing potentially hazardous workplaces, monitoring exposure to any safety issues, and ensuring that a plan is in place to respond to any foreseeable issues. Following construction regular monitoring and maintenance of the fuel line would occur in accordance with MDE monitoring requirements, which has been developed in consideration of OSHA standards. Therefore, the proposed action would have short- and long-term negligible adverse impacts to occupational safety and health. Based on the above analysis, impacts to occupational safety and health would not be significant in either context or intensity as defined by CEQ.

Under the No Action Alternative, the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would not be built; therefore, no consideration of OSHA would be required.

### 3.5 HAZARDOUS MATERIALS / WASTE

#### *Affected Environment*

The Air Force maintains a comprehensive set of policies and plans to ensure JBA's assigned missions do not adversely affect the surrounding natural environment. Hazardous substances are those corrosive, toxic, flammable, and reactive materials that, when spilled or released into the environment, are dangerous to public health. A HAZMAT pharmacy is established at Building No. 3066 to serve a single point of control and accountability for HAZMAT. This

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pharmacy system provides JBA with a standard way to manage HAZMAT procurement and to comply with Environment, Safety, and Occupational Health requirements. Any solid, liquid, or contained gaseous material for disposal or recycle that poses significant potential harm to human health or environmental quality is a hazardous waste (Resource Conservation and Recovery Act of 1976). Up to 55 gallons of a hazardous waste may be stored at or near its point of generation, at an initial accumulation point, before it must be transferred to Building No. 3304, the designated hazardous waste storage area. Hazardous wastes would then be removed and disposed of by licensed private contractors, as JBA does not currently have a hazardous waste transfer, storage, and disposal facility; nor does it treat or directly dispose of any hazardous waste.

Any activity generating waste must have their waste tested to determine if it is hazardous. If the waste is hazardous, the activity must request approval from the Civil Engineer Squadron's Asset Management Flight for an initial accumulation point. Each waste-accumulating activity must appoint a site manager to be responsible for ensuring regulatory requirements are met. In addition, hazardous waste training is required for all personnel whose duties involve actual or potential exposure to hazardous waste. All hazardous waste storage containers must be in good condition and meet applicable United Nations transportation packaging requirements. Each waste stream must also be identified and quantified, with the mixing of hazardous and nonhazardous waste prohibited. After accumulation, wastes are transported to Building No. 3304 for storage prior to disposal.

The JBA is listed as a Superfund Site according to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) by Environmental Protection Agency (EPA). As such, any on site excavation would follow the *Joint Base Andrews Environmental Protection Standards for Contracts, Section 2.7*. This would include soils monitoring with a photo ionization detector during excavation. If contamination or potential contamination is observed, the material would be segregated from non-contaminated soils. The material would be sampled for characterization before off-site disposal at a licensed waste management facility.

### *Environmental Consequences*

The proposed action, including the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would adhere to the above-mentioned guidelines regarding waste classification and disposal, if necessary. The length of fuel line to be installed would not contain asbestos or other known hazardous materials. The fuel line to be installed would comply with all MDE and EPA regulations. Therefore, the proposed action would have no adverse impacts on human and environmental health due to hazardous materials and wastes. Based on the above analysis, impacts on human or environmental health due to hazardous materials and wastes would not be significant in either context or intensity as defined by CEQ.

No potential, adverse environmental or health effects related to the use, disposal, or storage of HAZMAT would be expected from implementing the No Action Alternative, as the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would not occur.

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### 3.6 BIOLOGICAL / NATURAL RESOURCES

#### *Affected Environment*

Nearly 80 percent of JBA Main Base is developed or intensely managed. Vegetation occurs largely in association with intensively managed areas (i.e., improved areas): lawns, gardens, golf course fairways, ponds, bare ground, and recreational fields. The airfield environment, including the infield of the airfield and the clear zones, is also intensively managed and is considered as improved area. The remaining patches of original vegetation (i.e., unimproved areas) are a combination of mixed hardwood forest, mixed hardwood/pine forest, oak forest, oak/hickory forest, oak/pine forest, pine forest, red maple swamp, and shallow emergent marsh.

In 2011, the JBA Arbor Plan was updated. The plan analyzed existing tree cover on JBA for the period from 1958 to 2009 using aerial imagery, remote sensing, and geographic information system tools. The 2011 Arbor Plan is designed to be used as a guide to landscape development, reforestation and maintenance of forest resources at JBA. It identifies priority planting areas in the form of corridors, gateways and reforestation plans, and it recommends plant materials and design guidelines to achieve the following goals:

- Help offset the loss of forest stands which has occurred over the past years
- Sustain the ecological values and the function of the forested landscape
- Integrate forest management activities with the management of base natural resources and the military mission of JBA
- Promote non-fragmented ecological communities and biodiversity while discouraging habitat that is in conflict with the mission
- Enhance the aesthetic and ecological value of the base where possible

All tree removal and/or pruning activities are required to be performed in accordance with the Arbor Plan's design and maintenance guidelines.

Wildlife habitat at JBA consists of a mix of upland and wetland areas surrounded by urban and suburban development. A biological survey conducted in 1994 identified 84 species of birds in a variety of ecological communities at JBA, including open water, red maple swamp, mixed hardwood forest, old field successional, mowed field, and mowed grass. Those results, combined with additional data from 2006, identified a total of 13 species of mammals, 10 species of reptiles and amphibians, 13 species of insects, and 5 species of fish at JBA. Since the survey was not a total inventory, it is possible there are additional undocumented animal species on JBA. Documented non-game species include raptors, gulls, killdeer, flocks of migrating starlings and cowbirds, waterfowl, wading birds, and songbirds. Game species that have been documented include white-tailed deer, wild turkey, gray squirrel, eastern cottontail, Canada geese, mallard, lesser scaup, mourning dove, and northern bobwhite quail. Populations of these species are limited by the reduction and fragmentation of suitable habitat outside of JBA and isolation of habitats at JBA. Due to mission and security constraints, no public access is permitted for hunting, fishing, trapping, or other wildlife-related outdoor recreation at JBA. JBA has depredation permits for birds and deer; these species are managed to keep the airfield clear and minimize BASH hazards (JBA 2014).

In accordance with Section 7 of the Endangered Species Act of 1973, the SHA solicited comments from the USFWS and DNR as it relates to known occurrences of rare, threatened, and endangered species within the project area that may be adversely impacted by the project.

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A DNR letter dated May 2, 2012 and online USFWS certification dated April 2, 2012 confirmed that no federal or state listed species of concern were identified within the project area. These letters are provided in **Appendix B**.

### *Environmental Consequences*

The proposed action will impact 1.4 acres of forested area within the boundary of JBA. Protection measures and BMPs would be implemented to minimize impacts to vegetation to the extent possible. Vegetative protection measures may include, but would not be limited to: evaluation of large trees and development of a tree save plan by an arborist or licensed tree expert; installation of tree protection fencing; root pruning for trees whose critical root zones (CRZs) lie within proposed construction area; minimizing tree cutting to the extent possible; and staging construction equipment to avoid damage to vegetation. A landscaping plan has been developed for implementation following construction that would provide approximately 0.7 acre reforestation and 0.3 acre afforestation. Planting in accordance with the landscaping plan would exceed the JBA Arbor Plan minimum 60% revegetation by 8%.

Temporary disturbances during construction would result in short-term impacts on terrestrial species and their habitat. The temporary construction-related disturbances would cause species to relocate to similar suitable habitats in the area. Species inhabiting the areas of permanent disturbance would likely reestablish themselves following construction in adjacent areas of sufficient habitat. Additionally, revegetation in accordance with the aforementioned landscape plans would, upon maturity, provide sufficient food and shelter for the reestablishment of some species within the project area. Therefore, the proposed action would have long-term minor adverse impacts to wildlife habitat.

The sum of the activities comprising of the proposed action would have short- and long-term minor adverse impacts to biological and natural resources. Based on the above analysis, impacts to biological and natural resources would not be significant in either context or intensity as defined by CEQ.

Under the No Action Alternative the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would not be built; therefore, no impacts to biological or natural resources would occur.

### **3.7 CULTURAL RESOURCES**

#### *Affected Environment*

Under federal law, impacts to cultural resources could be considered adverse if the resources are eligible for listing, or are listed on, the NRHP, or are important to American Indian groups. In a consultation letter dated May 27, 2014 SHA notified Maryland Historical Trust (MHT) of recent design changes for the MD 4/Suitland Parkway interchange project, including the fuel line relocation and the extent of the proposed perimeter fence and security path relocation. SHA concluded that the proposed action would not impact significant archeological sites based on the results of previous archaeological investigations and the extensive disturbance documented throughout the archaeological survey area. Additionally, no historic structures or districts would be impacted within the boundary of JBA by the proposed action. Suitland Parkway, located along the northern boundary of JBA within the project area, is a historic district listed on the National Register of Historic Places. By carbon copy the Maryland Commission on Indian Affairs was also notified of the project. Pursuant to Section 106 (36 CFR 800.5), MHT concurred

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on July 22, 2014 that the interchange construction project would have *an adverse effect* on Suitland Parkway. A Memorandum of Agreement (MOA), outlining measures to mitigate for impacts to Suitland Parkway, was executed October 17, 2014 by NPS, FHWA, SHA, and MHT. MHT concurrence and the MOA are provided in **Appendix B**.

Each year the Department of the Interior, Bureau of Indian Affairs publishes a list of Federally Recognized Indian Tribes/Nations. As of the January 29, 2014 Federal Register Notice, there are no Federally Recognized Indian Tribes/Nations in Maryland. Although there are no federally recognized tribes in Maryland, the Powhatan is a State-recognized tribe and is anticipated to be federally recognized in the near future. JBA is not required by the National Historic Preservation Act (NHPA) to consult with this tribe; however, JBA should prepare to do so, if necessary, for future projects. JBA will consider Native American concerns in base planning, complying with the American Indian Religious Freedom Act and the Native American Graves Protection and Repatriation Act.

### *Environmental Consequences*

Based on the SHAs findings and MHT's concurrence, the proposed action would not impact cultural, historical, or archeological resources within the boundary of JBA. Should construction unearth previously undiscovered archeological resources, work will be stopped in the area of any discovery and consultation with the State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer and the ACHP will occur as necessary (36 CFR 800.13). In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 will be followed as appropriate. Therefore, the proposed action would have no impacts on cultural resources. Based on the above analysis, impacts on cultural resources would not be significant in either context or intensity as defined by CEQ.

Under the No Action Alternative, the relocation of an existing high pressure fuel line, and relocation of the JBA perimeter fence and security path would not be built; therefore, there would be no impacts to cultural, historical, or archeological resources.

### **3.8 CUMULATIVE IMPACTS**

Cumulative effects on environmental resources result from the incremental effects of an action when combined with other past, present, and reasonably foreseeable future projects in the region of influence. Cumulative effects can result from individually minor but collectively substantial, actions taken over a period of time. In accordance with NEPA, a discussion of cumulative effects that could result from projects that are proposed or anticipated in the foreseeable future is required.

The scope of the cumulative effects analysis involves both the geographic extent of the effects and the time frame in which the effects could be expected to occur, as well as a description of what resources could potentially be cumulatively affected. JBA has several known construction and demolition projects scheduled over the next several years, as described in Table 3 Initial clearing, grubbing and utility relocation for the interchange project was advertised August 26, 2014. Final design for the remainder of the interchange will be advertised by August 2015 and construction would continue through 2019.

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**Table 3: Summary of Proposed Projects at JBA and Timeframe for Construction**

Project Name/Description	Anticipated Fiscal Year					
	2015	2016	2017	2018	2019	2020+
Construct Helicopter Operations Facility	X					
Consolidated Communications Center				X		
Demolish 1558, 1539, 1560					X	X
Construct Type IV Fuel Hydrant System for the Aerospace Control Alert Facility		X	X	X		
21 Point Enclosed Firing Range			X	X		
Security Forces Group Complex			X	X		
Relocate East Runway						X
Replace Child Development Center #1			X	X	X	
Base Civil Engineer Complex					X	
Replace West Fitness Center				X	X	
Relocate JADOC for New Large Hangar Complex			X			
Relocate MWD K9 Kennels for New Large Hangar Complex			X			
Relocate Hazardous Cargo Pad/EOD Range for New Large Hangar Complex			X			
Construct New Large Hangar Complex				X		
Fire Station Addition for New Large Hangar Complex				X		
Demolish Munitions Storage Area		X	X	X		
Replace USAPAT Facility			X			
Taxiway Whiskey Reconstruction and Extension		X	X	X		
Taxiway Charlie Reconstruction		X	X	X		
Taxiway November Reconstruction		X	X	X		
Replace Airfield Storm Drains	X	X	X	X	X	
Replace East/West Deluge Line		X	X	X		
Repair Paynes Branch			X	X		
Construct EOD Addition		X	X			
Addition to Base Exchange	X	X	X			
Construct Logistics Readiness Squadron Addition		X	X	X		
Construct Chapel Addition		X	X	X		
Construct Facility at Davidsonville		X	X			
Construct Taxi Lane for the Aerospace Control Alert Facility	X	X				
Construct 2 <sup>nd</sup> Taxiway Hangar 20					X	X
Construct Addition to Visiting Quarters (B 1380)						X
Upgrade Main, Pearl Harbor, VA, North Gates			X	X		
Demolish Library B 1642		X	X			
Demolish T-Line B 3602		X	X			
Demolish 1713, 3603, 3605, 3808		X	X			

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Project Name/Description	Anticipated Fiscal Year					
	2015	2016	2017	2018	2019	2020+
Demolish 1522, 1524, 1527		X	X			
Facility Demolition (Ongoing)	X	X	X	X	X	

Source: Personal Communication from Anne Hodges, 11 CES/CEIE

*Air Installation Compatible Use Zone/Land Use*

The proposed action would have long-term negligible impacts to AICUZ and land use within the project area. Planned projects would be developed in accordance with the JBA General Plan and the *Andrews Air Force Base Maryland Air Installation Compatible Use Zone Study* (December 2007). Therefore, past, present and reasonably foreseeable actions occurring within JBA would result in negligible adverse cumulative effects to AICUZ and land use. These effects, in combination with negligible adverse impacts of the proposed action would contribute a negligible adverse cumulative impact to AICUZ and land use within JBA.

*Streams*

The proposed action would contribute long-term minor adverse impacts to stream resources within JBA. Planned projects would be developed in accordance with the JBA General Plan. Construction activities associated with these projects would include grading, clearing, and excavation. Each of these projects would be require adherence to MDE stormwater management regulations, erosion and sediment control plans and adherence to best management practices (BMPs). Past, present and reasonably foreseeable actions occurring within JBA would result in minor adverse cumulative effects to streams. These effects, in combination with long-term minor adverse impacts of the proposed action would contribute a minor adverse cumulative impact on streams within JBA.

*Wetlands*

The proposed action would have no direct impacts to wetlands; therefore, the proposed action would have no contribution to cumulative impacts.

*Occupational Safety and Health*

The proposed action would have long-term negligible adverse impacts to occupational safety and health. Planned projects would be developed in accordance with the JBA General Plan. All construction activity would be conducted in accordance with OSHA standards. Construction contractors would be required to establish and maintain safety programs. All contractors performing construction activities would be responsible for complying with Air Force safety rules as well as OSHA regulations. Past, present and reasonably foreseeable actions occurring within JBA would result in negligible adverse cumulative effects to occupational safety and health. These effects, in combination with negligible adverse impacts of the proposed action would contribute a negligible adverse cumulative impact on occupational safety and health within JBA.

*Hazardous Materials and Waste*

The proposed action would have no adverse impacts on human and environmental health due to hazardous materials and wastes; therefore, the proposed action would have no contribution to cumulative effects.

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### *Cultural Resources*

The proposed action would have no direct impacts to cultural resources; therefore, the proposed action would have no contribution to cumulative impacts.

### *Biological/Natural Resources*

The proposed action would result in long-term minor adverse impacts to biological and natural resources. Planned projects would be developed in accordance with the JBA General Plan. Construction activities associated with these projects would adhere to MDE stormwater management regulations, erosion and sediment control plans and BMPs. Further, adherence of all development activities to the JBA Arbor Plan would ensure reforestation and maintenance of forest resources at JBA. Therefore, past, present and reasonably foreseeable actions occurring within JBA would result in minor adverse cumulative effects to biological and natural resources. These effects, in combination with long-term minor adverse impacts of the proposed action would contribute a minor adverse cumulative impact on biological and natural resources within JBA.

### *Summary of Cumulative Impacts*

When the proposed action is considered in conjunction with past, present, or reasonably foreseeable actions, no significant cumulative impacts would be expected on any resource area.

## **3.9 Summary of the Environmental Consequences of the Alternatives**

A summary of environmental consequences for each alternative is provided in Table 4. Based on the above analysis, impacts resulting from the proposed action would not be significant in either context or intensity as defined by CEQ.

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**Table 4: Summary of Environmental Consequences**

<b>Environmental Factors</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
<b>AICUZ/Land Use</b>	The proposed action would require temporary construction authorization of 7.7 acres. Permanent land use would be affected by a perpetual easement of less than 0.1 and a revertible easement of 0.6 acre via a revertible easement to SHA. The proposed action would have short- and long-term negligible impacts to AICUZ and land use. The proposed action would contribute a negligible adverse cumulative impact to AICUZ and land use.	The No Action Alternative would have no impacts on AICUZ or land use.
<b>Streams</b>	The proposed action would impact 47 linear feet of streams. The proposed action would have short-and long-term minor adverse impacts on streams. The proposed action would contribute a minor adverse cumulative impact on streams within JBA.	The No Action Alternative would have no impacts on streams.
<b>Wetlands</b>	The proposed action would have no impacts on wetlands.	The No Action Alternative would have no impacts on wetlands.
<b>Occupational Safety and Health</b>	The proposed action would have short- and long-term negligible adverse impacts to occupational safety and health. The proposed action would contribute a negligible adverse cumulative impact on occupational safety and health.	The No Action Alternative would have no impacts on occupational safety and health.
<b>Hazardous Materials and Waste</b>	The proposed action would have no impacts on human and environmental health due to hazardous materials and wastes.	The No Action Alternative would have no impacts on human and environmental health due to hazardous materials and wastes.
<b>Biological/Natural Resources</b>	The proposed action would impact 1.4 acres of forested resources. The proposed action would result in long-term minor adverse impacts to biological and natural resources. The proposed action would contribute a minor adverse cumulative impact on biological and natural resources.	The No Action Alternative would have no impacts on Biological and Natural Resources.
<b>Cultural Resources</b>	The proposed action would have no impacts on Cultural Resources.	The No Action Alternative would have no impacts on Cultural Resources.

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### 4.0 PUBLIC AND AGENCY INVOLVEMENT

Coordination with state and federal agencies was conducted during the planning and NEPA process to identify issues and/or concerns related to natural and cultural issues potentially impacted by the undertaking.

#### 4.1 Agency Coordination

In accordance with Section 7 of the Endangered Species Act of 1973, the SHA solicited comments from the USFWS and DNR as it relates to known occurrences of rare, threatened, and endangered species within the proposed project area that would be adversely impacted by the project. A DNR Wildlife and Heritage letter dated May 2, 2012, an online USFWS certification dated April 2, 2012, and a DNR Environmental Review Unit letter dated April 29, 2013 confirmed that no federal or state listed species of concern were identified within the project area. The response letters are provided in **Appendix B**.

As detailed in Section 3.7, SHA consulted MHT via letter dated, May 27, 2014 for their concurrence that the proposed action would not impact significant archeological sites based on the results of previous archaeological investigations and the extensive disturbance documented throughout the archaeological survey area. Further, SHA determined that no historic structures or districts would be impacted within the boundary of JBA by the proposed action. Suitland Parkway, located along the northern boundary of JBA within the project area, is a historic district listed on the National Register of Historic Places. By carbon copy the Maryland Commission on Indian Affairs was also notified of the project. Pursuant to Section 106 (36 CFR 800.5), MHT concurred on July 22, 2014 that the interchange construction project would have *an adverse effect* on Suitland Parkway. A Memorandum of Agreement (MOA), outlining measures to mitigate for impacts to Suitland Parkway, was executed October 17, 2014 by NPS, FHWA, SHA, and MHT. MHT concurrence and the MOA are provided in **Appendix B**.

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 34.02.01.04-06, the Maryland State Clearinghouse coordinated intergovernmental review of the project. By letter dated March 16, 2015, the MD Clearinghouse provided review and recommendation for the proposal (**Appendix B**). Many agency reviewers provided confirmation that the project is generally consistent with plans, programs, and objectives. Substantive comments provided are summarized below and responses are provided.

DNR requested that the project ensure best management practices are used with stormwater management and sediment erosion control. Similarly, Prince George's County requested that the project should include strategies on stormwater management runoff controls and treatment for the additional impervious road surfaces. As detailed in Section 3, stormwater management runoff controls and treatment for the additional impervious road surfaces for the MD 4/Suitland Parkway interchange project would be prepared and implemented in accordance with the *2000 Maryland Stormwater Design Manual, Volumes I & II* (MDE 2000), addressing long-term stormwater runoff and groundwater recharge.

MDE commented that any solid waste generated from the project must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Further, MDE instructed that the Waste Diversion and Utilization Program should be contacted for any proposed generation of or handling of hazardous wastes, to ensure these activities are conducted in

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compliance with applicable federal and state laws and regulations. Any on site excavation would follow the *Joint Base Andrews Environmental Protection Standards for Contracts*, which includes detailed provisions to address digging or trenching within the boundary of JBA including solid waste disposal or recycling in accordance with federal and state regulations, as detailed in Section 3.5.

### 4.2 Comment Period

This EA was distributed for public and agency review with a comment period of 15 days. No public comments were received during the public review period.

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List of Preparers

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## ENVIRONMENTAL ASSESSMENT

Environmental Assessment  
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