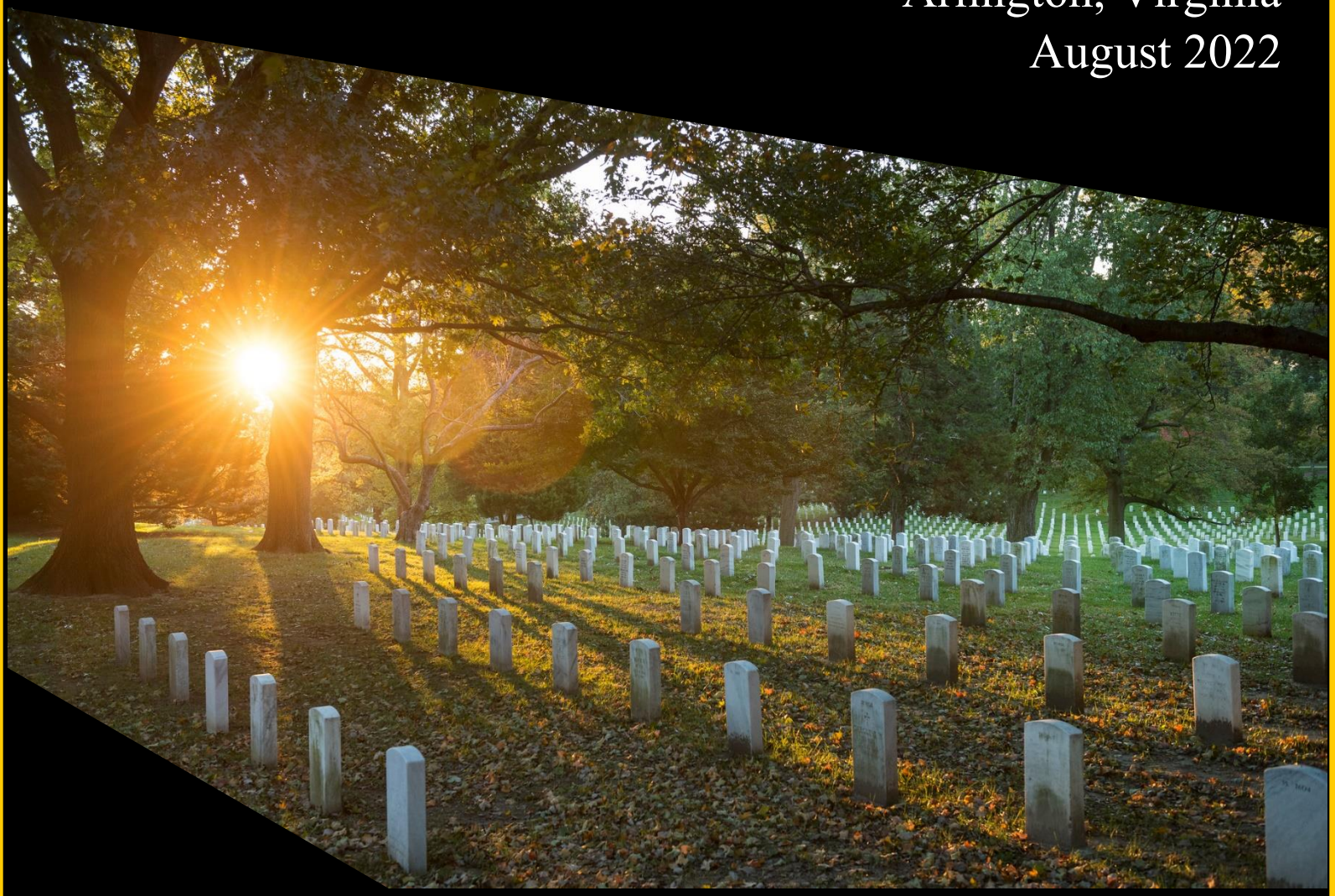
Final
Environmental Assessment

Security Upgrades
Arlington National Cemetery
Arlington, Virginia
August 2022



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Cover Sheet

Proposed Action: Security upgrades at Arlington National Cemetery

Type of Document: Final Environmental Assessment

Lead Agency: Arlington National Cemetery, a Direct Reporting Unit of Headquarters, Department of the Army

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Abstract

Arlington National Cemetery (ANC) proposes to upgrade security measures to meet antiterrorism and force protection (AT/FP) standards for federal facilities. Physical and operational security upgrades have been identified to address deficiencies and improve the overall AT/FP posture of ANC. These include a security screening memorandum of agreement, establishing an on-site emergency operations center, upgrading perimeter fencing, and upgrading interior bollards and barriers.

Two resource areas were selected for detailed analysis in this Environmental Assessment (EA): cultural resources and air quality. These resources are analyzed in detail due to potential impacts as well as to address compliance with the National Historic Preservation Act and the Clean Air Act, respectively. Potential impacts to the following resource areas are considered to be negligible or absent: water resources, geological resources, biological resources, utilities, infrastructure, land use, and the surrounding community. Therefore, these resource areas are not analyzed in this EA.

ANC evaluated AT/FP upgrade action alternatives that would satisfy the purpose of and need for the Proposed Action, as well as a no action alternative, which provides a comparative baseline for analysis. Reasonable alternatives were selected via a screening process. During the preparation of this document, Alternative 2 for the Section 52 and 53 Fence and Boundary Wall Upgrade was executed due to security needs. All alternatives were considered prior to execution. All alternatives, including Alternative 2, were fully evaluated in this document and no significant impacts were identified.

ANC is consulting with the Virginia Department of Historic Resources and the Virginia Department of Environmental Quality during the preparation of this EA.

EA organization: The Executive Summary provides an overview of potential impacts for each resource category. Chapter 1 details the purpose of and need for the action and provides background information. Chapter 2 describes the Proposed Action and alternatives. Chapter 3 presents existing conditions and describes potential environmental consequences of the Proposed Action alternatives and No Action Alternative. Chapter 4 identifies persons and agencies consulted. Chapter 5 lists EA preparers.

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
ANC	Arlington National Cemetery
APE	area of potential effects
AR	Army Regulation
AT/FP	antiterrorism and force protection
BMP	best management practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
DHR	Department of Historic Resources
DoD	Department of Defense
EA	Environmental Assessment
EO	Executive Order
EOC	emergency operations center
FLEXOPS	flexible operations center
GHG	greenhouse gas
HFC	hydrofluorocarbon
JBM-HH	Joint Base Myer – Henderson Hall
MS4	municipal separate storm sewer system
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NO_x	nitrogen oxides
PA	Programmatic Agreement
PFC	perfluorocarbon
PM_{10}	particulate matter less than or equal to 10 micrometers in diameter
$PM_{2.5}$	particulate matter less than or equal to 2.5 micrometers in diameter
ROI	region of influence
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SO_x	sulfur oxides
U.S.C.	United States Code
UFC	Unified Facilities Criteria
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
VDOT	Virginia Department of Transportation
VPDES	Virginia Pollutant Discharge Elimination System

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Executive Summary

ES.1 Proposed Action

Arlington National Cemetery (ANC) proposes to upgrade security to meet antiterrorism and force protection (AT/FP) standards for federal facilities. This Environmental Assessment (EA) evaluates the potential consequences to the human and natural environment associated with these proposed security upgrades.

ANC's current security does not meet AT/FP (hereafter referred to as "security") standards for federal facilities. Internal and external assessments of ANC security identified deficiencies between established security criteria and existing security conditions. Physical and operational security upgrades (i.e., the Proposed Action) have been identified to address deficiencies and improve the overall security posture of ANC. These projects are summarized below.

ES.1.1 Security Screening Memorandum of Agreement with Joint Base Myer – Henderson Hall

A memorandum of agreement with Joint Base Myer – Henderson Hall (JBM-HH) would be developed to provide vehicle screening services for commercial delivery and service vehicles and clarify emergency operations center (EOC) functions for ANC grounds.

ES.1.2 Flexible Operations Center in Welcome Center

This project would retrofit a room in the Welcome Center to function as a flexible operations center (FLEXOPS) for ANC that supplements the off-site EOC at Joint Base Myer – Henderson Hall. The FLEXOPS would be located in existing ANC office space, and would not displace, reduce, or eliminate existing visitor services.

ES.1.3 Fence and Boundary Wall Upgrades

This project would upgrade ANC boundary fencing and walls to meet security standards at the Ord & Weitzel Drive Gate, Sections 52 and 53, along Memorial Avenue, at the Visitor Parking Garage area, and at Sections 69 through 76.

ES.1.4 Bollard and Barrier Upgrades

This project would replace all bollards at ANC with one design that is removable and interchangeable. Upon completion, there would be 71 removable bollards at 35 locations. This project would also include installing 20 concrete planter barriers at the tram loading area and Columbarium and one mobile concrete bollard at the Welcome Center entrance on Memorial Avenue.

ES.2 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to upgrade security at ANC. The Proposed Action is needed to remedy deficiencies and improve the overall security posture at ANC. As an installation under the jurisdiction of the U.S. Army—and one of unparalleled meaning to the Nation—the safety and security of ANC's resources and visitors are of upmost importance.

ES.3 Alternatives Considered

ANC selected screening criteria to ensure that all reasonable alternatives were considered for this EA. Alternatives for this Proposed Action must:

- Comply with applicable regulations.
- Address security deficiencies identified during security assessments and satisfy security requirements.
- Be implementable or identified for implementation in the near term (i.e., next 5 years).
- Be comparable in complexity and cost to alternatives that address the same security deficiency (i.e., does not cost more than double that of another reasonable alternative).
- Preserve the historical character of ANC (i.e., result in no adverse effects to historic resources at ANC and require no mitigation).

ANC is considering three action alternatives that meet the purpose of and need for the Proposed Action and a No Action Alternative. All three action alternatives include treatments for the security fence at Sections 52 and 53.

Under Alternative 1, the security fence would be constructed of 8-foot-tall steel pickets and posts. It would be placed on the outside of the existing masonry wall. Placement would allow enough space from the wall for vegetation maintenance and removal of leaves and debris.

Under Alternative 2, the security fence would be constructed of a 4-foot-tall, high-strength steel fence topper atop the existing masonry wall at Sections 52 and 53. This would bring the overall height of the wall and fence combined to 8 feet.

Alternative 3 would be the same as described for Alternative 1 except that the fence along the masonry wall would be placed as close as possible to the wall instead of allowing space for maintenance.

Under the No Action Alternative, the Proposed Action would not occur. As required by the National Environmental Policy Act, the No Action Alternative is analyzed in this EA and will be used to consider the consequences of not implementing the Proposed Action.

ES.4 Summary of Environmental Resources Evaluated in the Environmental Assessment

All potentially relevant environmental resource areas were initially considered for analysis in this EA. Two resource areas were selected for analysis: cultural resources and air quality. These

resources are analyzed in detail due to potential impacts to them as well as to address compliance with the National Historic Preservation Act and the Clean Air Act, respectively.

Potential impacts to the following resource areas are considered to be negligible or absent: water resources, geological resources, biological resources, utilities, infrastructure, land use, and the surrounding community. Therefore, these resource areas are not analyzed in this EA.

ES.5 Summary of Potential Environmental Consequences of the Action Alternatives and Major Mitigating Actions

ES.5.1 Cultural Resources

No Action Alternative: The No Action Alternative would have no effects to cultural resources. There would be no retrofit of the Welcome Center to create a flexible operations center, no upgrades to ANC boundary fencing, and no bollard and barrier upgrades.

Alternatives 1, 2, and 3: The memorandum of agreement with JBM-HH to provide security screening would be an administrative action that would have no effects on historic properties at ANC. The refitting of a room within the Welcome Center for use as a flexible operations center would primarily consist of electrical wiring and the installation of interior electronics, which are allowed under the conditions of ANC's Programmatic Agreement with the Virginia State Historic Preservation Officer. The Programmatic Agreement streamlines Section 106 consultation for routine operation, maintenance, and repair activities at ANC. No adverse impacts to the Arlington National Cemetery Historic District, the Memorial Amphitheater Historic District, or the Arlington Ridge Park Historic District are anticipated from the proposed fence and boundary wall upgrades or the bollard and barrier upgrades.

Under any of the action alternatives, impacts to archaeological resources are not anticipated. All construction would occur in portions of the area of potential effects that have been surveyed and found not to contain archaeological resources or that have been disturbed through prior development of the cemetery or adjacent infrastructure. The finding of previously undiscovered cultural resources would also not be expected.

ES.5.2 Air Quality

No Action Alternative: Under the No Action Alternative, the security upgrades at ANC would not be completed and there would be no changes to air emissions-generating activities at ANC. Air emissions would remain at current baseline levels, and there would be no impact to air quality in the region of influence.

Alternatives 1, 2, and 3: Emissions associated with security upgrades at ANC would not generate significant quantities of any pollutants. Furthermore, these emissions would be temporary, only lasting the duration of the upgrading construction process. Once completed, emissions would return to baseline levels. Therefore, no significant impacts to air quality would occur.

ES.6 Public Involvement

CEQ regulations direct federal agencies to involve the public in preparing and implementing their NEPA procedures. Members of the public and interested parties were invited to review and comment on the proposed action. An open house public meeting was held on May 3rd 2022. No comments were received from the public meeting and one comment was received from an interested party. This EA has incorporated the comment.

ANC consulted with the Virginia Department of Historic Resources in accordance with Section 106 of the National Historic Preservation Act and with the Virginia Department of Environmental Quality in accordance with the Coastal Zone Management Act. The Virginia Department of Historic Resources concurred that the Proposed Action will have an effect on cultural resources at ANC, but the effect will not be adverse. The Virginia Department of Environmental Quality concurred with ANC's determination that the Proposed Action would be consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Management Program.

1 Purpose and Need

Arlington National Cemetery (ANC) has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act of 1969 (NEPA), as implemented by the Council on Environmental Quality (CEQ) and Army regulations. This EA evaluates the potential consequences to the human and natural environment associated with proposed security upgrades at ANC. Chapter 1 provides background information, an overview of the Proposed Action, discussion of the purpose of and need for the action, and information on public participation and government/intergovernmental coordination.

ANC's Mission Statement: *Arlington National Cemetery represents the American people for past, present, and future generations by laying to rest those few who have served our nation with dignity and honor, while immersing guests in the cemetery's living history.*

1.1 Background

ANC proposes to upgrade security measures to meet antiterrorism and force protection (AT/FP) standards for federal facilities. ANC's current security does not meet AT/FP (hereafter referred to as "security") standards for federal facilities. Physical and operational security upgrades (i.e., the Proposed Action) have been identified to address deficiencies and improve the overall security posture of ANC.

Emergency Services' Mission Statement: *Joint Base Myer-Henderson Hall Directorate of Emergency Services protects life, health, property, environment and stands ready to respond to all hazards by providing the community with quality Law Enforcement, Physical Security, Fire Protection and Emergency Services to the JBM-HH, Arlington National Cemetery and the United States Military District of Washington Communities.*

ANC includes 639 acres located west of Washington, D.C., in Arlington, Virginia. The cemetery lies at the west end of Memorial Avenue, directly across the Arlington Memorial Bridge from the Lincoln Memorial (Figure 1-1). ANC is under the jurisdiction of the Department of the Army.

ANC serves as the most hallowed burial ground of our Nation's fallen and is where, to date, over 400,000 have been laid to rest. ANC is an active military cemetery, with an average of 150 veterans or family members interred each week. ANC memorializes history, as it is the final resting place for the military heroes and patriots who built, preserved, and protected our Nation, from the Revolutionary War to the wars in Afghanistan and Iraq. Over 3 million people visit ANC each year. The graves, memorials, and landscape provide an important sense of peace and beauty for visitors.

Security at ANC is provided by the Directorate of Emergency Services (Emergency Services) at Joint Base Myer – Henderson Hall (JBM-HH). ANC is a semi-closed installation (e.g., no open access, visitors must pass through security screening to enter) with controlled entry. ANC operates under a Physical Security Plan that is part of the ANC Protection Program.

Figure 1-1. Location of Arlington National Cemetery

The Physical Security Plan prescribes policies and procedures to plan and implement the Army Physical Security Program at ANC. The plan provides policies on how to use physical security equipment, appoint physical security officers and inspectors, conduct physical security inspections and surveys, manage physical security credentials, manage and use identification cards and badges, manage restricted areas, conduct access control for installations and stand-alone facilities, and manage security forces at ANC.

1.2 Introduction to the Proposed Action

The Proposed Action is to upgrade security at ANC. Internal and external assessments of ANC security identified deficiencies between established security criteria and existing security conditions. Due to their sensitive nature, the security assessments are not available for public release or reference. Overall security posture at ANC is based on a combination of all of the following regulations and criteria:

- Code of Federal Regulations (CFR)
  - 32 CFR 553, Army Cemeteries
- Department of Defense (DoD) regulations
  - DoD 2000.16, DoD Antiterrorism Standards
  - DoD 5200.08-R, Physical Security Program
- U.S. Army regulations (ARs)
  - AR 190-13, The Army Physical Security Program
  - AR 525-13, Antiterrorism
- Unified Facilities Criteria (UFC)
  - UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings
  - UFC 4-010-23, Emergency Operations Center Planning and Design
  - UFC 4-020-01, DoD Security Engineering Facilities Planning Manual
  - UFC 4-022-03, Security Fences and Gates
  - UFC 4-021-01, Design and Operation and Maintenance: Mass Notification
  - UFC 4-021-02, Electronic Security Systems

Based on the assessments, ANC identified various projects to address deficiencies and improve the overall security posture. The Proposed Action as described in this EA comprises a subset of these projects as determined based on screening criteria.

1.3 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to upgrade security at ANC. The Proposed Action is needed to remedy deficiencies and improve the overall security posture at ANC. As an installation under the jurisdiction of the United States Army—and one of unparalleled meaning to the Nation—the safety and security of its resources and visitors are of upmost importance.

1.4 Scope of the Environmental Analysis

This EA describes potential impacts to the human environment resulting from implementation of the Proposed Action. The Proposed Action includes a subset of identified security upgrades. These include perimeter fencing, enhanced visitor vehicle management, access gate controls, on-site operations center, re-deployable traffic control devices, and defined mutual assistance security memoranda with adjoining agencies. Section 2.2 (Proposed Action and Alternatives) details these upgrades.

1.4.1 Future Security Upgrades

While implementing the Proposed Action would increase security at ANC, it would not fully align ANC with all security standards. ANC has, and will continue to, upgrade its security to protect the installation, personnel, visitors, and resources for which it is responsible. Additionally, as threats are constantly evolving, ANC regularly assesses its security posture to counter new threats as they arise.

Future security upgrades outside the scope of this Proposed Action would be addressed in separate NEPA analyses, as were preceding upgrades. Effects of the Proposed Action and effects of recent and future near-term upgrades (e.g., within 5 years) may combine and result in additive impacts, which are assessed in this EA.

1.4.2 Applicable Laws and Regulations

This EA conforms to NEPA, as amended (42 United States Code [U.S.C.] 4321 et seq.), the Council on Environmental Quality Regulations Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500–1508), and the Environmental Analysis of Army Actions (32 CFR 651). Other laws, regulations, and statutes relevant to the Proposed Action that are addressed in this EA include:

- Clean Air Act (42 U.S.C. section 7401 et seq.)
- Clean Water Act (33 U.S.C. section 1251 et seq.)
- Coastal Zone Management Act (16 U.S.C. section 1451 et seq.)
- National Historic Preservation Act (54 U.S.C. section 300101 et seq.)
- Endangered Species Act (16 U.S.C. section 1531 et seq.)
- Migratory Bird Treaty Act (16 U.S.C. section 703 et seq.)
- Executive Order (EO) 11988, Floodplain Management
- EO 12088, Federal Compliance with Pollution Control Standards
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Section 3.4.2 (Table 3-5) describes how the Proposed Action complies with the regulations listed above.

1.5 Public Participation and Government/Intergovernmental Coordination

CEQ regulations direct federal agencies to involve the public in preparing and implementing their NEPA procedures.

ANC published a Notice of Availability of the Draft EA in the April 20-26, 2022 edition of the *Arlington Connection* newspaper and website, as well as on the ANC website commencing on April 20, 2022. The notice described the Proposed Action, solicited public comments on the Draft EA, provided dates of the public comment period (April 20 through May 20, 2022), and announced that a copy of the EA would be available for review. The Draft EA was made available in electronic format on the ANC website. ANC held a public meeting on May 3, 2022 at the ANC Welcome Center to describe the environmental impacts of the Proposed Action and alternatives and to receive comments on the Draft EA impacts analyses. No public comments were received at the public meeting .

Notifications regarding the availability of the Draft EA were sent out to interested parties. The notifications described the Proposed Action and solicited comments. One comment was received. The comment suggested that the EA affirm that the current and future planned use of the ANC Welcome Center would be to provide for visitor services and amenities and any other use would not displace or eliminate these services. The Final EA has been revised to address this comment.

ANC consulted with the Virginia Department of Historic Resources (DHR) regarding the Proposed Action. The DHR concurred with ANC's determination that the Proposed Action will have an effect on historic resources, but the effect will not be adverse. Appendix A contains copies of the consultation materials.

ANC consulted with the Virginia Department of Environmental Quality regarding the Coastal Zone Management Act and the Virginia Coastal Management Program. The Virginia Department of Environmental Quality concurred with ANC's determination that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Management Program. Appendix C contains copies of the consultation materials and Appendix D contains public involvement materials.

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2 Description of Proposed Action and Alternatives

2.1 Screening Criteria

ANC selected screening criteria to ensure that all reasonable alternatives were considered for this EA. Alternatives for this Proposed Action must fulfill the following criteria:

- Comply with applicable regulations:
  - 32 CFR 553, Army Cemeteries
  - AR 190-13, The Army Physical Security Program
- Address security deficiencies identified during security assessments/satisfy requirements.
- Be implementable/identified for implementation in the near term (i.e., next 5 years).
- Be comparable in complexity and cost to alternatives that address the same security deficiency (i.e., does not cost more than double that of another reasonable alternative).
- Preserve the historic character of ANC (i.e., result in no adverse effects to historic resources at ANC and require no mitigation).

2.2 Proposed Action

The Proposed Action comprises the following projects described in Sections 2.2.1 through 2.2.4. These projects were identified to address deficiencies in security that can be implemented within the next 5 years at ANC. Figure 2-1 shows the locations of these projects.

2.2.1 Security Screening Memorandum of Agreement with Joint Base Myer – Henderson Hall

A memorandum of agreement with JBM-HH would be developed to provide vehicle screening services for commercial delivery and service vehicles and clarify emergency operations center (EOC) functions for ANC grounds. At present, ANC only allows vetted commercial drivers on cemetery grounds. This agreement would allow for nonvetted drivers and vehicles to proceed through JBM-HH to be screened for admittance to ANC.

2.2.2 Flexible Operations Center in Welcome Center

This project would retrofit a room in the Welcome Center (Figure 2-2) to function as a flexible operations center (FLEXOPS) for ANC that supplements the off-site EOC at JBM-HH. The FLEXOPS would be located in existing ANC office space, and would not displace, reduce, or eliminate existing visitor services. The current and future planned use of the main floor of the Welcome Center is to provide visitor services and amenities.

Joint Base Myer – Henderson Hall handles emergency operations at a dedicated center located on the installation. ANC needs a FLEXOPS to provide continuity of emergency operations in case the EOC at JBM-HH is compromised or unable to provide coverage for the cemetery.

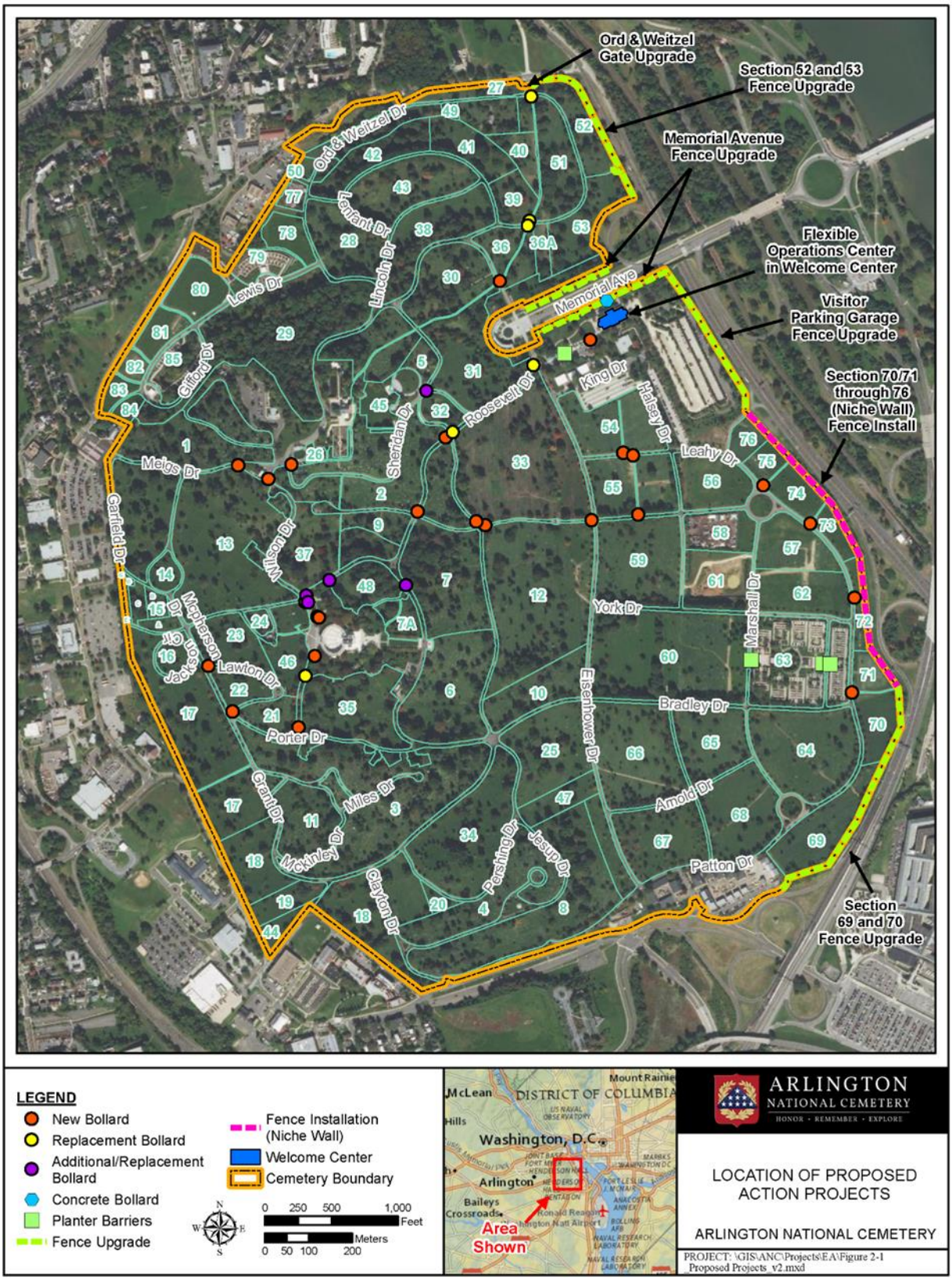

Figure 2-1. Location of Proposed Action Projects

Figure 2-2. Arlington National Cemetery Welcome Center

2.2.3 Fence and Boundary Wall Upgrades

This project would upgrade ANC boundary fencing and walls to meet security standards at the Ord & Weitzel Drive Gate, Sections 52 and 53, along Memorial Avenue, at the Visitor Parking Garage area, and at Sections 69 through 76.

The Ord & Weitzel Drive Gate (Figure 2-3) does not comply with security standards. This nonhistoric gate features a hinged 4-foot-tall pedestrian gate, two 7-foot-tall (total height) red sandstone gate piers, and an automated sliding vehicle entry gate that is 5 feet, 6 inches tall. This gate would be upgraded to comply with security standards. This would be accomplished by replacing the steel pedestrian and vehicle gates with new 8-foot-tall gates and increasing the height of the existing sandstone gate piers to 10 feet tall. The existing gate pier capstones would be removed, and 3 feet of new matching red sandstone would be added. The original capstones would then be reinstalled, bringing the total height of the gate piers to 10 feet tall.

Sections 52 and 53 are bounded by an approximately 4-foot-tall masonry wall (Figure 2-4) that is approximately 1,300 feet long. It does not conform to security standards as it is too low and easily scaled. This section of boundary is currently the lowest section of perimeter boundary wall and represents the greatest boundary security issue at ANC.

Figure 2-3. Ord & Weitzel Drive Gate

Figure 2-4. Section 52 Masonry Wall

Memorial Avenue is bounded by 6-foot-tall chain-link fences to the north and south. These fences are located behind large, maintained hedges (Figure 2-5 and Figure 2-6). The fences do not conform to security standards as they are too low and do not have an anti-climb design. The fence on the north side of Memorial Avenue is approximately 770 feet long. The fence on the south side of Memorial Avenue is approximately 1,000 feet long in total (combined length of three segments). These fences would be upgraded to an 8-foot-tall, post-and-picket, steel security fence or an 8-foot-tall, anti-climb design, chain-link fence.

The Visitor Parking Garage area is bounded by a 6-foot-tall chain-link fence (Figure 2-7). The fences do not conform to security standards as they are too low and do not have an anti-climb design. This section of fencing is approximately 1,220 feet. The fence would be upgraded to an 8-foot-tall, post-and-picket, steel security fence.

Sections 69 and 70 feature a steel post-and-picket fence constructed on top of a masonry wall (Figure 2-8). The fence-and-wall combination barrier varies in height, depending on location, and reaches 6 feet tall at its southern (the Service Complex) and northern (Section 70) terminus. This section is approximately 1,760 feet long. This fence-and-wall barrier does not conform to security standards as it is too low. The post-and-picket topper piece of the fence would be upgraded so that the minimum total height is 8 feet tall along the entire length. Existing attachment sites would be reutilized to the extent possible to keep intact the integrity of the design, workmanship, and materials of the historic masonry wall. Where it is not possible to reuse existing attachment sites, posts would be located away from the edges of capstones and away from joints between adjacent capstones. The majority of the masonry wall would remain untouched.

Source: (Google Earth, 2017)

Figure 2-5. Memorial Avenue Chain-Link Fence
(south side, behind hedge shown)

Figure 2-6. View West on Memorial Avenue – Hedges on North and South Sides Backed by 6-Foot-Tall Chain-Link Fence

Source: **(Google Earth, 2021)**

Figure 2-7. Visitor Parking Garage Chain-Link Fence

Figure 2-8. Section 69 and 70 Boundary Wall/Fence

Sections 70/71 through 76 are bounded by the Niche Wall columbarium (Figure 2-9). This 6-foot-tall structure contains 6,573 compartments for cremated remains in a gray fieldstone wall. The Niche Wall is approximately 2,390 feet long and does not conform to security standards as it is too low and was not designed to be a security feature. An 8-foot-tall, post-and-picket steel security fence would be installed on the outside of the Niche Wall along its entire length. The fence would tie into Gate 110 and the Section 69 and 70 fence.

2.2.4 Bollard and Barrier Upgrades

Bollards and barriers at ANC are used to deter civilian vehicle traffic from entering certain areas. At present, ANC uses two types of bollards (17 bollards at 11 locations). These bollards use different keys/locking mechanisms and are not interchangeable. The bollards are aging and in varying states of disrepair. Due to their age and condition, some bollards cannot be removed as designed.

This project would replace all existing bollards at ANC as well as add additional bollards determined necessary for security. All bollards would be consistent, removable, and interchangeable. Upon completion, there would be 71 removable bollards at 35 locations. These locations have been selected by ANC security staff to provide the necessary security and flexibility for ANC operations and functions. Bollards would be emplaced and removed as needed. Bollards would be designed to blend into the overall landscape of ANC while still being visible to drivers. Figure 2-10 shows an example of an existing bollard at ANC.

Figure 2-9. Niche Wall

Figure 2-10. Existing Bollard

In addition, this project would include installation of 20 concrete planter barriers at the tram loading area and Columbarium and one mobile concrete bollard at the Welcome Center entrance on Memorial Avenue. Existing bollards are too spread out to prevent a vehicle from entering (Figure 2-11). Pedestrians gather in these areas, which are exposed to vehicles. The planter barriers would match existing concrete features (e.g., match color and texture of existing concrete structures), and the bollard would match three existing bollards at the Welcome Center. Figure 2-12 shows an example of a concrete planter barrier (note that this is an example, and final design selection would undergo a thorough review to ensure planter barriers meet ANC design guide specifications).

Figure 2-11. Welcome Center Concrete Bollards

Figure 2-12. Example Concrete Planter Barrier

2.3 Alternative 1 – Sections 52 and 53 Steel Post-and-Picket Fence with Easement

Alternative 1 would implement the Proposed Action as described in Section 2.2 (Proposed Action and Alternatives) with an additional fence upgrade for Sections 52 and 53 as described below.

Under Alternative 1, the security fence would be constructed of 8-foot-tall steel pickets and posts. It would be placed on the outside of the existing masonry wall. Placement would allow enough space from the wall for vegetation maintenance and removal of leaves and debris. The fence would match the fence currently emplaced on the perimeter of JBM-HH as well as match the fence on the west side of the Ord & Weitzel Drive Gate (Section 27) (Figure 2-13).

Figure 2-13. Example of Masonry Wall Fronted by Steel Fence (Section 27)

Where the masonry wall ends at Section 53, the fence would abut a matching post-and-picket fence that continues on to Memorial Avenue. An easement would be required from Arlington County and the Virginia Department of Transportation (VDOT) to install the fence on the section that features the masonry wall.

2.4 Alternative 2 – Sections 52 and 53 Steel Picket Fence Topper

Alternative 2 would implement the Proposed Action as described in Section 2.2 (Proposed Action and Alternatives) with the fence upgrade for Sections 52 and 53 as described below.

Under Alternative 2, the security fence would be constructed of 4-foot-tall, high-strength steel fence topper atop the existing masonry wall at Sections 52 and 53. This would bring the overall height of the wall and fence combined to 8 feet. The design would match the existing wall and fence combination that exists elsewhere at ANC (Figure 2-14).

Figure 2-14. Example of Masonry Wall with Steel Fence Topper

2.5 Alternative 3 – Sections 52 and 53 Steel Post-and-Picket Fence with Limited Easement

Alternative 3 would implement the Proposed Action as described in Section 2.2 (Proposed Action and Alternatives) with the fence upgrade for Sections 52 and 53 as described below.

Alternative 3 would be the same as described for Alternative 1 except that the fence along the masonry wall would be emplaced as close as possible to the wall instead of allowing space for maintenance. An easement would still be needed, but the easement area would be smaller.

2.6 Alternatives Screened from Further Consideration

The following alternative project iterations have been eliminated from further consideration because they do not conform to one or more of the screening criteria listed in Section 2.1 (Screening Criteria).

2.6.1 Flexible Operations Center in Building Other Than Welcome Center

While compliant with all screening criteria, after review by security officials and specialists, no other buildings at ANC were identified as available or capable of hosting an EOC due to their location and distance to emergency egress routes. Therefore, alternative EOC buildings were not considered further.

2.6.2 Visitor Parking Area Fence and Memorial Avenue Fence Upgrade (4-Foot Wall/4-Foot Topper)

Under this alternative, the fences in these areas would be a 4-foot-tall masonry wall with a 4-foot-tall steel fence topper, matching what is present in many areas of ANC. This alternative would not comply with the comparable cost screening criteria. Masonry wall construction with a high-strength, steel fence topper was estimated to cost almost three and a half times more per linear foot than steel fencing alone (using RS Means construction cost estimating software) (Kidder, 2021). Therefore, this alternative was not considered further.

2.6.3 Sections 71–76 Niche Wall Upgrade (2-Foot Wall Topper)

Under this alternative, the Niche Wall would be upgraded to feature a 2-foot-tall steel fence topper, bringing its total height to 8 feet. Because the Niche Wall is an active columbarium and not a security feature, with many internments already completed and funerals occurring regularly, this alteration of use and function would not be appropriate. Therefore, this alternative was not considered further.

2.7 No Action Alternative

Under the No Action Alternative, the Proposed Action would not occur, and ANC would remain noncompliant with security requirements and would potentially experience greater exposure to security threats. Thus, the No Action Alternative would not meet the purpose of and need for the Proposed Action. As required by NEPA, the No Action Alternative is carried forward for analysis in this EA and will be used to analyze the consequences of not implementing the Proposed Action—not simply to reach a conclusion of "no impact"—and serve as a comparative baseline for analysis.

2.8 Best Management Practices Included in Proposed Action

This section presents an overview of the best management practices (BMPs) that are incorporated into the Proposed Action as described in this EA. BMPs are existing policies, practices, and measures that ANC would adopt to reduce the impacts of the Proposed Action. Although BMPs reduce potential impacts by avoiding, minimizing or reducing/eliminating effects, BMPs are distinguished from potential mitigation measures because BMPs are (1) existing requirements for the Proposed Action, (2) ongoing, regularly occurring practices, or (3) not unique to this Proposed Action. In other words, the BMPs identified in this document are inherently part of the Proposed

Action and are not potential mitigation measures proposed as a function of the NEPA environmental review process for the Proposed Action. Table 2-1 lists BMPs included in this Proposed Action. Mitigation measures are discussed in Chapter 3.

Table 2-1. Best Management Practices

Resource	BMP Description	Impacts Reduced/Avoided
Water Quality/Soils	The contractor would implement measures included in the existing stormwater pollution prevention plan for erosion and sediment controls and stormwater BMPs. The contractor would install, maintain, and operate erosion and sediment control measures, such as silt fences, storm drain protection, soil retention blankets, etc., prior to the start of any work that could cause pollution to state waters. The contractor would keep paved roads, parking lots, and walkways clear of dirt, debris, and other materials. The contractor would immediately remove any dirt, debris, or materials deposited onto these surfaces. The contractor would furnish and use drip pans under equipment oil and fuel tanks and cover equipment when not in use and during rain events.	Reduce erosion, sedimentation, and stormwater pollution during construction.
Solid Waste	The contractor would recycle materials such as cardboard, paper, aluminum/metal cans, plastic and glass jars/bottles, scrap metal, concrete, and asphalt and manage solid waste generated during the project in accordance with federal and state laws and regulations.	Reduce solid waste generated and divert waste from landfill.
Air Quality	The contractor would use all necessary reasonable control measures to reduce air pollution from any material or equipment used during construction. This includes, but is not limited to, wetting down dry materials as necessary to prevent blowing dust and keeping waste and materials in covered containers. Contractor vehicles would be in good condition with up-to-date emissions inspections. Vehicle emissions inspections are required for certain vehicles registered or operated in northern Virginia. Contractor vehicles would not be idled longer than 3 minutes except when the vehicle's propulsion engine is providing auxiliary power for purposes other than heating and air conditioning.	Reduce air pollution.
Cultural Resources	During any soil-disturbing activities, if prehistoric or historic artifacts, human remains, buried features, or structural foundations are discovered, the contractor would be directed to stop work and contact the Cultural Resources/NEPA Manager immediately.	Reduce potential impacts on any unknown and undisturbed prehistoric or historic artifacts, human remains, buried features, or structural foundations.

BMP = best management practice; NEPA = National Environmental Policy Act

BMPs include actions required by federal or state law or regulation. The recognition of the general management measures prevents unnecessarily evaluating impacts that are unlikely to occur.

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3 Existing Conditions and Environmental Consequences

This chapter describes the environmental resources and baseline conditions that could be affected from implementing any of the alternatives.

All potentially relevant environmental resource areas were initially considered for analysis in this EA. In compliance with NEPA, CEQ, and Army requirements, the discussion of the affected environment (i.e., existing conditions) focuses on resource areas potentially subject to impacts. The level of detail used in describing a resource is proportionate with the expected level of potential environmental impact. Accordingly, this section provides a detailed examination of the potential effects of the Proposed Action and alternatives to cultural resources and air quality.

The potential impacts to the following resource areas are considered to be negligible or absent: water resources, geological resources, biological resources, utilities, infrastructure, land use, and the surrounding community. Therefore, these resource areas, briefly discussed below, are not analyzed in this EA.

Land use. The Proposed Action would not impact land use. There would be no changes to land use resulting from the Proposed Action.

Visual resources. The Proposed Action would result in impacts to visual resources; however, these impacts are analyzed in context to historic viewsheds and are analyzed in detail in Section 3.1 (Cultural Resources). Therefore, visual resources are not addressed as a stand-alone resource in this document.

Water resources. The Proposed Action would not impact water resources other than the installation of fence footers and bollard posts. At most, Alternatives 1 and 2 would result in approximately 812 square feet of total ground disturbance (using construction standards found in UFC 4-022-03 [0.8 square foot per fence post footer and 1.8 square feet per bollard footer]). This small disturbance area, approximately the size of five parking spaces, would be minor. There would be no meaningful increase in impervious surfaces at ANC as a result of the Proposed Action. New fence post footers would be installed subgrade with grass on top (planted or replaced as appropriate), and new bollards would be installed in previously paved areas.

Furthermore, the Proposed Action would not result in new point or non-point sources of water pollution. Clean Water Act permits would not be required for construction (e.g., Virginia Pollutant Discharge Elimination System [VPDES] permit for Stormwater Discharges from Construction Activities) or operation (e.g., VPDES permit for Industrial Activities) of Proposed Action activities. A Land Disturbing Activity/Stormwater Permit would not be required as the Proposed Action would not disturb 2,500 square feet or greater.

ANC operates a small municipal separate storm sewer system (MS4) under VPDES Permit Number VAR040139, effective November 1, 2018. ANC implements pollution prevention and good housekeeping practices throughout its facility to minimize and prevent pollutants from discharging to its MS4. Written procedures, a Stormwater Pollution Prevention Plan, a Nutrient

Management Plan, and training are key parts of ANC's pollution prevention and good housekeeping program. These documents are made available to construction contractors. The BMPs for water quality described in Section 2.8, which are included as requirements in ANC construction contracts, would be employed during construction.

No surface waters, wetlands, or floodplains occur within any Proposed Action areas. Appropriate best management practices would be implemented to ensure that contaminants are not introduced into water sources.

Geological resources (including topography and soils). The Proposed Action would not impact geology, topography, or soils. No unique geologic features (e.g., caves, cliffs, canyons, etc.) are present in Proposed Action areas. Geologic features that are present (e.g., mostly various types of sand and gravel sedimentary deposits) would not be impacted by Proposed Action activities, the most intrusive of which would consist of excavating fence post and bollard footers. The topography of the affected areas would remain unchanged (e.g., no leveling, cutting or filling of terrain). As noted in the discussion of water resources above, there would be very little ground disturbance under the Proposed Action and, consequently, the Proposed Action would not result in impacts to soils.

Biological resources. The Proposed Action would not impact biological resources. All Proposed Action activities occur on previously developed areas and/or maintained lawn or landscaped areas. Wildlife present during construction would be accustomed to human presence and activities. Migratory birds in the area would likely leave any area of disturbance. There would be no takes of migratory birds. Tree removal is not anticipated under the Proposed Action. The monarch butterfly (*Danaus plexippus*) is a species that may be seasonally present on ANC. This species is a candidate species for listing under the federal Endangered Species Act. Because the Proposed Action would not affect monarch butterfly habitat at ANC (milkweed [*Asclepias spp*.] and nectar-providing flowers), the Proposed Action would have no effect on the monarch butterfly.

Public health and safety: The Proposed Action would not impact public health and safety. All Proposed Action activities would occur on Army property, or an easement obtained by the Army. Work areas would be cordoned off and signed to prevent the public from accessing these areas during construction. Proposed Action construction contractors would abide by all Army and Occupational Safety and Health Administration requirements.

Infrastructure (including utilities). The Proposed Action would not impact infrastructure (e.g., roads, buildings, sidewalks) or utilities (potable water, sewer, electricity, etc.). The Proposed Action would not build, modify, or remove any infrastructure at ANC. Proposed Action activities would not result in an increased demand for any utility service at ANC. Prior to any construction, utilities would be located and marked so that they would be avoided and, therefore, service would not be interrupted during construction. Therefore, infrastructure is not addressed further in this document.

Noise. The Proposed Action would not result in noise impacts to people. Construction equipment associated with the Proposed Action would not consist of large heavy equipment such as pile drivers and bulldozers. Noise generated by the installation of fence upgrades and other Proposed Action activities would be temporary, localized, and similar to daily noise from ANC internment

operations, which utilize excavators and front-end loaders, as well as maintenance such as mowing, trimming, pruning, hydroseeding, and sod removal and installation.

Transportation. The Proposed Action would not result in impacts to transportation. Proposed Action activities would not require the shutdown or alteration of any roadways. Delivery of Proposed Action materials would not impact traffic in any measurable way and would add a negligible number of daily trips to total traffic at ANC. Ample areas exist to stage/laydown materials as well as perform work outside of roadways.

Surrounding community (including socioeconomics and environmental justice). The Proposed Action would not impact population, demographics, housing, community services and facilities, or income because the number of permanent employees within the project area would not change. During construction, there would be a temporary and minor beneficial impact associated with the use of local labor and supplies. Workers would likely be hired from the local workforce or would already be established employees of a contractor and would not be associated with any permanent in-migration of workers. Because Proposed Action activities are confined to ANC (as are the impacts, if any, to other resource areas), the Proposed Action would not result in impacts to minority or low-income populations.

Hazardous materials and wastes. The Proposed Action would not impact hazardous materials and wastes. Small amounts of hazardous materials would be used during the construction phase of Proposed Action activities. These may include paints, adhesives, solvents, etc. These materials would be handled in accordance with all applicable regulations. Correspondingly, small amounts of these materials may need to be disposed of as hazardous waste. These wastes would be disposed of in accordance with ANC's hazardous waste management program and all applicable regulations. The volume of hazardous waste generated by the Proposed Action would not exceed any U.S. Environmental Protection Agency (USEPA) generator thresholds and would not jeopardize ANC's status as a small-quantity generator of hazardous waste. There are no known sites regulated under the Comprehensive Environmental Response, Compensation, and Liability Act or Resource Conservation and Recovery Act within any of the Proposed Action areas.

3.1 Cultural Resources

3.1.1 Definition of Resource

Cultural resources include archaeological sites, structures, cultural landscapes, museum collections, and ethnographic resources. Significant cultural resources are identified as historic properties (as defined in 36 CFR 60.4) if they are either considered to be eligible for or listed in the National Register of Historic Places (NRHP).

Section 106 of the National Historic Preservation Act (NHPA) mandates that federal agencies consider the impact of their undertakings on historic properties within the project's area of potential effects (APE), illustrated in Figure 3-1. The APE for cultural resources consists of areas where physical disturbance (i.e., digging) would occur and areas where there would be a potential change to the visual setting of historic properties through the introduction of new physical elements (e.g., fencing, bollards). For the purposes of cultural resources analysis, the Proposed Action

region of influence (ROI) was considered equivalent to the APE, as defined by 36 CFR 800.16(d). If adverse effects on historic properties are identified, then agencies must attempt to avoid, minimize, or mitigate these impacts to resources considered important in our Nation's history.

3.1.2 Existing Conditions

3.1.2.1 Archaeological Resources

There are no known archaeological resources recorded in the APE for direct physical disturbance. The areas, and specific locations where the security barriers would be constructed have had repeated disturbances from cycles of construction and demolition and, as a result, have a very low potential for intact archaeological sites. For the portion of the APE within the cemetery, there is virtually no undisturbed ground in that part of the APE given the roadways, graves, and underground utilities filling the area. The likelihood of finding or identifying NRHP-eligible archaeological resources would be very small.

3.1.2.2 Buildings, Structures, and Landscape

The above-ground cultural resources in the APE include the Arlington National Cemetery Historic District and the Arlington Ridge Park Historic District, both of which are listed in the NRHP. The Arlington National Cemetery Historic District was established as a military cemetery during the Civil War and contains many contributing elements including the Tomb of the Unknown Soldier, the dead from the Nation's military conflicts, and the graves of many former U.S. presidents. ANC has a Programmatic Agreement (PA) with the Virginia State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) (Arlington National Cemetery, 2014). This PA streamlines Section 106 consultation for routine operation, maintenance, and repair activities at ANC. The Arlington Ridge Park Historic District is located immediately north of Sections 27 and 52 in the northeastern portion of ANC. The Arlington Ridge Park Historic District is an open-space memorial that includes the famous United States Marine Corps Memorial monumental sculpture and the Netherlands Carillon, one of the first examples of modern architecture used for a commemorative monument in the Nation's capital (VDHR, 2020).

3.1.3 Environmental Consequences – No Action Alternative

The No Action Alternative would have no effects to cultural resources. There would be no retrofit of the Welcome Center to create a FLEXOPS, no upgrades to ANC boundary fencing, and no bollard and barrier upgrades.

3.1.4 Environmental Consequences – Alternative 1

3.1.4.1 Security Screening Memorandum of Agreement with Joint Base Myer – Henderson Hall

Under the Proposed Action, a memorandum of agreement with JBM-HH would be developed to provide vehicle screening services. This agreement would allow for nonvetted drivers and vehicles to proceed through JBM-HH to be screened for admittance to ANC. This administrative action would have no effect on historic properties at ANC.

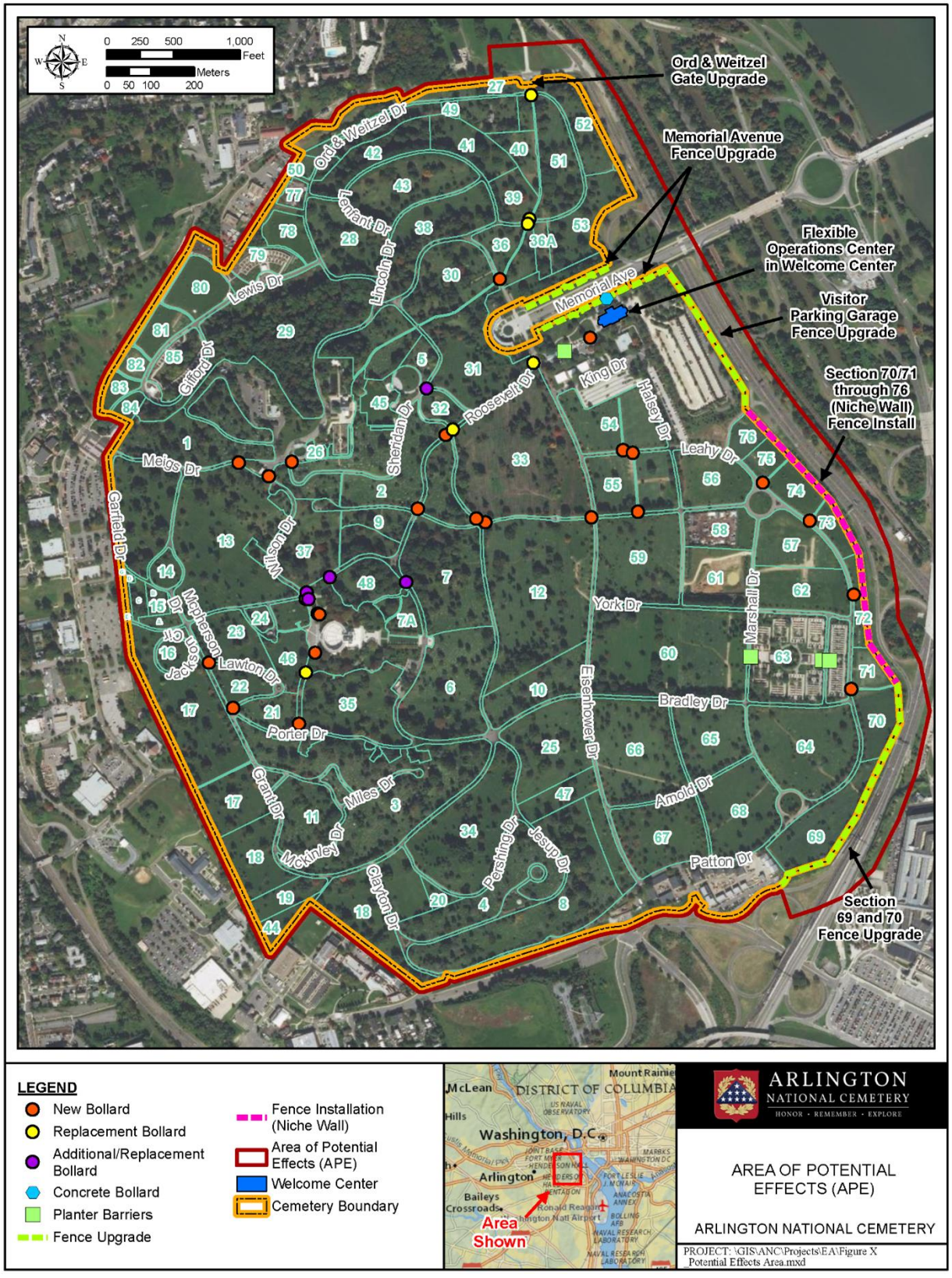

Figure 3-1. Area of Potential Effects

3.1.4.2 Flexible Operations Center in Welcome Center

The Proposed Action would include refitting a room in the Welcome Center for use as a FLEXOPS. The Welcome Center (constructed in 1988 and formerly known as the Visitor's Center) is a contributing element to the Arlington National Cemetery Historic District according to criteria in "National Register Eligibility of National Cemeteries – A Clarification of Policy" (Arlington National Cemetery, 2014). NRHP guidance on national cemeteries indicates that all active elements contribute to the historic significance on a continuing basis, even recent additions. Furthermore, the Welcome Center was created with a mission to enhance the ANC visitor experience.

ANC has a PA with the Virginia SHPO and the ACHP (Arlington National Cemetery, 2014). This PA streamlines Section 106 consultation for routine operation, maintenance, and repair activities at ANC. According to stipulations of the PA, certain interior work activities including "Rehabilitation in-kind/replacement in-kind of electrical wiring including lighting, fire alarms, smoke/heat detectors, fire suppression systems, telephones, and local area network are considered undertakings but have limited potential to adversely affect historic properties and therefore do not require further review under this Agreement." The refitting of a room within the Welcome Center for use as a FLEXOPS would primarily consist of electrical wiring and the installation of interior electronics, which are allowed under the conditions of the PA. Because the room selected for the FLEXOPS retrofit would be located in existing ANC office space, and would not displace, reduce, or eliminate existing visitor services, the retrofit would not affect the Welcome Center's established history of providing services and amenities for ANC visitors. Therefore, there would be no adverse effects on the Welcome Center or the Arlington National Cemetery Historic District from retrofitting the Welcome Center room to serve as a FLEXOPS.

3.1.4.3 Fence and Boundary Wall Upgrades

The Proposed Action would include upgrading the ANC boundary fencing and walls to meet security standards. This project addresses fencing and walls at the Ord & Weitzel Drive Gate, Sections 52 and 53, along Memorial Avenue, at the Visitor Parking Garage area, and at Sections 69 through 76.

The upgrade of the non-historic Ord & Weitzel Drive Gate would consist of replacing the steel pedestrian and vehicle gates with new 8-foot-tall gates and increasing the height of the existing sandstone gate piers to 10 feet tall. The existing gate pier capstones would be removed, and 3 feet of new matching red sandstone would be added. The original capstones would then be reinstalled, bringing the total height of the gate piers to 10 feet tall. The proposed gate would visually match the height and appearance of the existing 8-foot-high black metal picket fences located immediately to the west.

The security fence upgrade at Sections 52 and 53 would consist of adding an 8-foot-tall steel post-and-picket security fence. The new fence would be placed outside the existing masonry wall with enough room between the wall and the fence to allow maintenance activities (i.e., lawn mowing, debris cleanup). Each new fence post would require a 12-inch-diameter hole approximately 3 feet deep. Ground disturbance from the installation of 170 steel posts, each 3 inches in diameter, would total approximately 133 square feet. The proposed fence would visually match existing 8-foot-high black metal picket fences located between Section 53 and the

Route 110 on-ramp immediately to the south and along the northern boundary of Section 27, immediately west of Section 52.

Upgrades to the security fencing along Memorial Avenue and at the Visitor Parking Garage would replace the existing 6-foot-high chain-link fences with 8-foot-tall steel post-and-picket fences. The new fencing would total approximately 1,770 feet along Memorial Avenue and 1,220 feet at the Visitor Parking Garage. Each new fence post would require a 12-inch-diameter hole approximately 3 feet deep. Ground disturbance for these two projects from the installation of approximately 390 steel posts (each 3 inches in diameter) would total approximately 307 square feet. The fencing would visually match existing 8-foot-tall black metal picket fences currently in use in the immediate vicinity of the proposed upgrades, at the Route 110 on-ramp adjacent to the east of Memorial Avenue and just north of the Visitor Parking Garage.

The security fence upgrade at Sections 69 and 70 would involve placement of a new steel fence topper on the existing masonry wall. These sections currently feature a steel post-and-picket fence atop a masonry wall that, due to the height of the surrounding landscaping, do not reach the 8-foot security requirement. This upgrade would replace the current fence topper with one 8 feet in height along the entire length of Sections 69 and 70. The new fence topper would utilize the existing fence attachments on the current masonry walls and visually match the existing security fence of these sections as well as existing masonry walls with steel fence toppers along Southgate Road, immediately west of Section 69.

The security fence upgrade at Sections 70/71 through 76 would involve building an 8-foot-tall steel post-and-picket fence outside the Niche Wall along its entire length. Sections 70/71 through 76 are bounded by the Niche Wall columbarium, a 6-foot-tall structure containing compartments for cremated remains in a gray fieldstone wall. Each new fence post would require a 12-inch diameter hole approximately 3 feet deep. Ground disturbance from the installation of approximately 313 steel posts, each 3 inches in diameter, would total approximately 245 square feet. The proposed fencing would match existing 8-foot-high black metal picket fences currently in use at the Route 110 on-ramp at Memorial Avenue, north of Section 76, and elsewhere at the boundary of ANC.

No adverse effects to the Arlington National Cemetery Historic District or the Arlington Ridge Park Historic District would be anticipated from the proposed fence and boundary wall upgrades. The proposed upgrades at the Ord & Weitzel Drive Gate and the 8-foot-tall steel post-and-picket security fence upgrades for Sections 52, 53, Memorial Avenue, Visitor Parking Garage, and Sections 70/71 through 76 would introduce a change to the visual environment. These changes would not constitute an adverse effect. The new gate and fencing would visually match existing 8-foot-tall black metal picket fencing in use at the Route 110 on-ramp immediately northeast of Memorial Avenue and along Marshall Drive directly west of Section 153. The increase in the height of the sandstone piers at the Ord & Weitzel Drive Gate would be accomplished by adding new matching red sandstone and reutilizing the existing capstones, which would retain the appearance and character of the piers. The fence toppers proposed for Sections 69 and 70 would utilize existing fence attachments to the extent possible to keep intact the integrity of the design, workmanship, and materials of the historic masonry wall. These new fence toppers would match existing fence toppers nearby along the southern boundary of ANC, bordering Southgate Road. ANC would retain the historic views and vistas within the cemetery after completion of fence and

wall upgrades. The historic location and elements within the districts would be maintained. The historic boundary wall would be retained. Headstones and circulation patterns would remain unchanged. The cemetery would continue to convey its historic significance both as a military cemetery and through its landscape architecture and architecture. There would be no changes to the integrity of location, workmanship, feeling, or associations of ANC's historic district elements listed in or eligible for the NRHP.

The Arlington Ridge Park Historic District, a portion of which is within the APE, is north of the proposed fence upgrade to Section 52. The boundary wall with added picket fence would be visible from the southern portion of Arlington Ridge Park. The fence would be more apparent during winter months when leaves fall from surrounding trees and other plants are not in bloom. Nevertheless, this change would have no effect on the character of the park.

Effects on archaeological resources would not be anticipated. All construction would occur in areas of the APE that have been surveyed and found not to contain archaeological resources and/or have been disturbed through prior development of the cemetery or adjacent infrastructure. It would not be expected that undiscovered cultural resources would be found during fence and wall upgrades. In the event of an inadvertent discovery during ground-disturbing operations, all work would cease, the ANC Cultural Resources Manager would be contacted immediately to notify the appropriate agencies, (e.g., Virginia DHR), and standard procedures would be followed to protect the artifacts and determine their significance. Therefore, fence and wall upgrades would have no adverse effects on intact archaeological resources or the Arlington National Cemetery Historic District.

3.1.4.4 Bollard and Barrier Upgrades

The Proposed Action would include installation of 71 removable bollards at 35 locations within the ANC. Seventeen of these 71 bollards (at 11 locations) would be replacements for existing outdated bollards; the remaining 54 would be new bollards at 24 new locations. The installation of the bollards would require the excavation of holes up to 18 inches in diameter at a maximum depth of 12 inches. Total ground disturbance associated with the bollard installation would be approximately 125 square feet. In addition to the bollards, 20 concrete planter barriers would be placed at four locations on ANC, and a single concrete barrier would be placed at the Welcome Center pedestrian gate. The barriers would be installed on paved surfaces with no ground disturbance.

No adverse effects to the Arlington National Cemetery Historic District are anticipated from the bollard and barrier security features. The new bollard and barrier plan would establish a consistent design that is compatible with the historic character of the cemetery. An increase in the number of both bollards and barriers would change the visual environment, but historic views and vistas within the cemetery would be retained. The historic location and elements within the districts would be maintained. Headstones and circulation patterns would remain unchanged. The cemetery would continue to convey its historic significance both as a military cemetery and through its architecture and landscape architecture. There would be no changes to the integrity of location, workmanship, feeling, or associations of ANC's historic district elements listed in or eligible for the NRHP.

No effects to archaeological resources would be anticipated from the proposed bollard and barrier upgrades. There are no known archaeological sites in the APE where the bollards would be installed. All bollards would be installed on paved or concrete surfaces where prior ground disturbance from road construction and paving activities preclude intact archaeological deposits at the planned depth for bollard installation. The installation of concrete barrier planters and a concrete barrier at the Welcome Center would involve no ground disturbance. Therefore, bollard and barrier upgrades would not result in adverse effects on intact archaeological resources or the Arlington National Cemetery Historic District.

3.1.5 Environmental Consequences – Alternative 2

Alternative 2 would implement the Proposed Action with environmental consequences as described in Sections 3.1.4.1 through 3.1.4.3. Under Alternative 2, the fence upgrade at Sections 52 and 53 would consist of the addition of a 4-foot-tall, high-strength steel fence topper on the existing masonry wall instead of constructing a separate fence.

No adverse effects to the Arlington National Cemetery Historic District or the Arlington Ridge Park Historic District would be anticipated from the proposed fence and boundary wall upgrades. The proposed upgrades at the Ord & Weitzel Drive Gate and the 8-foot-tall steel post-and-picket security fence upgrades for Memorial Avenue, Visitor Parking Garage, and Sections 70/71 through 76 would introduce a change to the visual environment. These changes would not constitute an adverse effect because the new gate and fencing would visually match existing 8-foot-tall black metal picket fencing in use at the Route 110 on-ramp immediately northeast of Memorial Avenue and along Marshall Drive directly west of Section 52, and the increase in the height of the sandstone piers at the Ord & Weitzel Drive Gate would be accomplished by adding new matching red sandstone and reutilizing the existing capstones, which would retain the appearance and character of the piers. The fence toppers proposed for Sections 52, 53, 69, and 70 would utilize existing fence attachments to the extent possible to keep intact the integrity of the design, workmanship, and materials of the historic masonry wall. These new fence toppers would match existing fence toppers nearby along the southern boundary of ANC, bordering Southgate Road. This minor change to the visual environment would have no effect on the character of the Arlington National Cemetery Historic District, as described for Alternative 1.[1]

The Arlington Ridge Park Historic District, a portion of which is within the APE, is north of the proposed fence upgrade at Section 52. The boundary wall with added fence topper would be visible from the southern portion of Arlington Ridge Park. The fence would be more apparent during winter months when leaves fall from surrounding trees and other plants are not in bloom. Nevertheless, this minor change to the visual environment would have no effect on the character of the Arlington Ridge Park Historic District.

[1] Note that during the preparation of this EA, the Army, due to security concerns and after considering all alternatives, proceeded with the Alternative 2 option for Sections 52 and 53. The Army completed a Record of Categorical Exclusion and consulted with the DHR prior to proceeding. The DHR concurred with the Army's determination that the upgrades to Sections 52 and 53 will have an effect on historic resources but that the effect will not be adverse (Holma, 2022). The Army consulted with the DHR for the remaining projects.

Effects to archaeological resources would not be anticipated. All construction would occur in areas of the APE that have been surveyed and found not to contain archaeological resources and/or have been disturbed through prior development of the cemetery or adjacent infrastructure. It would not be expected that undiscovered cultural resources would be found during implementation of Alternative 2. In the event of an inadvertent discovery during ground-disturbing operations, all work would cease, the ANC Cultural Resources Manager would be contacted immediately to notify the appropriate agencies (e.g., Virginia DHR), and standard procedures would be followed to protect the artifacts and determine their significance. Therefore, under Alternative 2, there would be no adverse effects on intact archaeological resources or the Arlington National Cemetery Historic District.

3.1.6 Environmental Consequences – Alternative 3

Alternative 3 would implement the Proposed Action with the environmental consequences as described in Sections 3.1.4.1 through 3.1.4.3. Under Alternative 3, the fence upgrade at Sections 52 and 53 would consist of a separate 8-foot-tall steel post-and-picket security fence placed as close to the existing masonry wall as possible, without leaving space between the wall and the fence for maintenance activities.

Under Alternative 3, no adverse effects to the Arlington National Cemetery Historic District or the Arlington Ridge Park Historic District would be anticipated from the fence and boundary wall upgrades. The proposed upgrades at the Ord & Weitzel Drive Gate and the 8-foot-tall steel post-and-picket fence at Sections 52 and 53, along Memorial Avenue, at the Visitor Parking Garage, and at Sections 70/71 through 76 would introduce a change to the visual environment. These changes would not constitute an adverse effect because the new gate and fencing would visually match existing 8-foot-tall black metal picket fencing in use at the Route 110 on-ramp immediately northeast of Memorial Avenue and along Marshall Drive directly west of Section 52, and the increase in the height of the sandstone piers at the Ord & Weitzel Drive Gate would be accomplished by adding new matching red sandstone and reutilizing the existing capstones, which would retain the appearance and character of the piers. The fence toppers proposed for Sections 69 and 70 would utilize existing fence attachments to the extent possible to keep intact the integrity of the design, workmanship, and materials of the historic masonry wall. These new fence toppers would match existing fence toppers nearby along the southern boundary of ANC, bordering Southgate Road. This minor change to the visual environment would have no effect on the character of the Arlington National Cemetery Historic District, as described for Alternative 1.

The Arlington Ridge Park Historic District, a portion of which is within the APE, is north of the proposed fence upgrade to Section 52. The boundary wall with added picket fence would be visible from the southern portion of Arlington Ridge Park. The fence would be more apparent during winter months when leaves fall from surrounding trees and other plants are not in bloom. Nevertheless, this minor change to the visual environment would have no effect on the character of the Arlington Ridge Park Historic District.

Effects to archaeological resources would not be anticipated. All construction would occur in areas of the APE that have been surveyed and found not to contain archaeological resources and/or have been disturbed through prior development of the cemetery or adjacent infrastructure. It would not be expected that undiscovered cultural resources would be found during implementation of the

Proposed Action. In the event of an inadvertent discovery during ground-disturbing operations, all work would cease, the ANC Cultural Resources Manager would be contacted immediately to notify the appropriate agencies (e.g., Virginia DHR), and standard procedures would be followed to protect the artifacts and determine their significance. Therefore, under Alternative 3, there would be no adverse effects on intact archaeological resources or the Arlington National Cemetery Historic District with implementation of this element of the Proposed Action.

3.1.7 Discovery of Human Remains – All Alternatives

In case of unanticipated discovery of human remains or funerary objects not associated with ANC during the Proposed Action, construction and cemetery personnel would follow established policy and procedures in accordance with Section 106 of the NHPA and ACHP guidance.

The policies and procedures are guides for treating burial sites, human remains, and funerary objects in a respectful and sensitive manner while acknowledging public interest in the past. The policies are designed to guide federal agencies in making decisions about the identification and treatment of burial sites, human remains, and funerary objects encountered in the Section 106 process in those instances where federal or state law does not prescribe a course of action.

If unanticipated human remains are discovered during the Proposed Action, equipment operators or inspectors would immediately stop excavation and flag off the area to protect and secure the site. The construction supervisor would contact the cultural resources manager, who would then contact local law enforcement to investigate and identify the remains. Removal of the remains or associated grave goods would require a permit from the Virginia DHR in accordance with the Virginia Antiquities Act [Code of Virginia §10.1-2305 (2016)].

All human remains would remain on-site until permitting and coordination processes are completed, including those of local law enforcement, the medical examiner, Virginia DHR, and affected tribal organizations, as appropriate.

3.2 Air Quality

3.2.1 Definition of Resource

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the affected air basin, and the prevailing meteorological conditions. Pollutants such as ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter are considered criteria air pollutants for which an ambient air quality standard has been set.

The baseline standards for criteria pollutant concentrations are the National Ambient Air Quality Standards (NAAQS) and state air quality standards. These standards represent the maximum allowable atmospheric concentration that may occur and still protect public health and welfare. Based on measured ambient air pollutant concentrations, USEPA designates whether areas of the United States meet the NAAQS. Those areas demonstrating compliance with the NAAQS are considered “attainment” areas, while those not in compliance are known as “nonattainment” areas. Those areas that cannot be classified on the basis of available information for a particular pollutant are “unclassifiable” and are treated as attainment areas until proven otherwise.

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. These emissions are generated by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Climate projections for the United States indicate continued warming in all seasons, higher heat indices, increased drought, and more intense hurricanes (IPCC, 2007). USEPA has determined that the combined emissions of six GHGs (carbon dioxide [CO_2], methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) in the atmosphere may "reasonably" be anticipated to endanger public health and welfare (USEPA, 2009) and, thus, should be considered pollutants covered under the Clean Air Act. Currently, there are no standards similar to the NAAQS for GHGs.

3.2.2 Existing Conditions

An air emissions inventory qualitatively and quantitatively describes the amount of emissions from a facility or within an area. Emissions inventories are designed to locate pollution sources, define the type and size of the sources, characterize emissions from each source, and estimate total mass emissions generated over a period of time, normally 1 year. Inventory data establish relative contributions to air pollution concerns by classifying sources and determining the adequacy as well as the necessity of air regulations.

For comparison purposes, Table 3-1 presents the USEPA's 2017 National Emissions Inventory (NEI) data for Arlington County, Virginia (USEPA, 2022). The county data include emissions from point, area, and mobile sources. Point sources are stationary sources that can be identified by name and location. Area sources are point sources whose emissions are too small to track individually, such as a home or small office building or a diffuse stationary source, such as wildfires or agricultural tilling. Mobile sources are any kind of vehicle or equipment with gasoline or diesel engine, an aircraft, or a ship. Two types of mobile sources were considered: on-road and nonroad. On-road mobile sources consist of vehicles such as cars, light trucks, heavy trucks, buses, engines, and motorcycles. Nonroad sources are aircraft, locomotives, diesel and gasoline boats and ships, personal watercraft, lawn and garden equipment, agricultural and construction equipment, and recreational vehicles.

Table 3-1. Baseline Emissions Inventory for Arlington County

County	Emissions (tons/year)						
	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_x	VOCs	Pb
Arlington County	14,256	2,606	1,325	432	175	2,968	468

Source: (USEPA, 2022)
CO = carbon monoxide; NO_x = nitrogen oxides; Pb = lead; PM_{10} = particulate matter less than or equal to 10 micrometers in diameter; $PM_{2.5}$ = particulate matter less than or equal to 2.5 micrometers in diameter; SO_x = sulfur oxides; VOC = volatile organic compound

To provide for a more conservative analysis, Arlington County was selected as the ROI instead of the USEPA-designated Air Quality Control Region, which is a much larger area. To identify impacts, calculated air emissions were compared with the annual total emissions of the ROI as represented in the 2017 NEI. Arlington County is currently classified as being in nonattainment for 8-hour ozone [2015 standard (USEPA, 2021)]. Therefore, a General Conformity applicability assessment is required.

The six primary GHGs are carbon dioxide, methane, nitrous oxide, HFCs, PFCs, and sulfur hexafluoride. Only emissions of carbon dioxide, methane, and nitrous oxide are considered in this EA; the other constituents do not apply. Each GHG has an estimated global warming potential, which is a function of its atmospheric lifetime and its ability to absorb and radiate infrared energy emitted from the Earth's surface.

HFCs, PFCs, SF_6, and nitrogen trifluoride are generated in relatively very small quantities and most often by very specific niche industries, such as electronic component manufacturing. Therefore, CO_2, CH_4, and N_2O are the primary GHGs of concern. For the purposes of this EA, GHGs were calculated and analyzed in terms of carbon dioxide equivalent (CO_2e), which is a term that describes various GHGs in a common unit based on the amount of CO_2 that would have the equivalent warming potential.

Table 3-2 provides the current USEPA 2017 NEI GHG inventory for Arlington County. While there are currently no regulatory thresholds for GHGs, this provides a point of reference for evaluating the context and intensity of potential climate change impacts from implementation of the Proposed Action and alternatives within the scope of NEPA.

Table 3-2. Baseline Greenhouse Gas Emissions Inventory for Arlington County

County	Emissions (tons/year)			
	CO_2	CH_4	N_2O	CO_2e
Arlington County	1,213,174	51	19	1,220,208

CH_4 = methane; CO = carbon monoxide; CO_2e = carbon dioxide equivalent; N_2O = nitrous oxide

3.2.3 Environmental Consequences – No Action Alternative

Under the No Action Alternative, the security upgrades at Arlington National Cemetery would not be completed. Air emissions would remain at current baseline levels, and there would be no impact to air quality in the ROI.

3.2.4 Environmental Consequences – Alternative 1

Total net direct and indirect emissions associated with Alternative 1 were estimated using a DoD-developed software tool for assessing conformity (ACAM 5.0.17b) on a calendar-year basis for the start of the action through achieving "steady state" (i.e., net gain/loss upon action fully implemented) emissions. The ACAM analysis used the latest and most accurate emission estimation techniques available including algorithms, emission factors, and methodologies (USAF, 2020a; USAF, 2020b).

Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady-state" (net gain/loss upon action fully implemented) emissions. Table 3-3 provides the net emissions for Alternative 1 compared against the *de minimis* levels. A comparison to the ROI baseline NEI emissions is also provided to give another point of comparison for the context and intensity of the potential impacts. There are

currently no thresholds for GHGs, so GHG emissions are provided (as CO_2e) in comparison to regional baseline emissions only.

Table 3-3. Alternative 1 Emissions

	Annual Emissions (tons/year)							
	CO	**NO_x**	**PM_{10}**	**$PM_{2.5}$**	**SO_x**	**VOCs**	**Pb**	**CO_2e**
Alternative 1 emissions	3.61	2.38	0.19	0.09	0.01	0.45	0.00	824
***de minimis* threshold**	100	100	100	100	100	100	25	–
Exceedance?	No	No	No	No	No	No	No	–
ROI baseline emissions	14,256	2,606	1,325	432	175	2,968	468	1,220,208
Percentage of Baseline	*0.03%*	*0.09%*	*0.01%*	*0.02%*	*0.01%*	*0.02%*	*0.00%*	*0.07%*

– = not applicable; CO = carbon monoxide; CO_2e = carbon dioxide equivalent; NO_x = nitrogen oxides; Pb = lead; PM_{10} = particulate matter less than or equal to 10 micrometers in diameter; $PM_{2.5}$ = particulate matter less than or equal to 2.5 micrometers in diameter; SO_x = sulfur oxides; VOC = volatile organic compound

All criteria pollutant emissions would be well below the *de minimis* thresholds. General Conformity under the Clean Air Act, Section 1.76, has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B, and because total emissions are below *de minimis* levels, the General Conformity rule is not applicable. See Appendix B for the Record of Non-Applicability.

Emissions associated with security upgrades at Arlington National Cemetery would not generate significant quantities of any pollutant. Furthermore, these emissions would be temporary, only lasting the duration of the construction associated with upgrades. Once completed, emissions would return to baseline levels. Therefore, there would be no significant impacts to air quality under Alternative 1.

3.2.5 Environmental Consequences – Alternative 2

Air emissions are estimated based on the square footage of the footprint of construction. This is used to estimate the equipment used, hours of operation, and fuel consumption. Therefore, although there are minor differences in the proposed implementation under this alternative because the total footprint of construction/demolition would be the same, the emissions would be the same as under Alternative 1 and there would be no significant impacts to air quality.

3.2.6 Environmental Consequences – Alternative 3

Air emissions are estimated based on the square footage of the footprint of construction. This is used to estimate the equipment used, hours of operation, and fuel consumption. Therefore, although there are minor differences in the proposed implementation under this alternative, because the total footprint of construction/demolition would be the same, the emissions would be the same as under Alternative 1 and there would be no significant impacts to air quality.

3.3 Related Actions

The effects of actions that occur around the same time and place and that have a close causal relationship as the Proposed Action and alternatives are considered in this EA. These include Army actions located on and adjacent to ANC. Related actions selected for inclusion in this EA were completed within the past 5 years as well as those that have a reasonable probability of being completed in the next 5 years. Upcoming projects were identified from Army planning documents. Table 3-4 lists these projects, and Figure 3-2 depicts the location of these projects. Sections 3.3.1 and 3.3.2 analyze these projects for additive impacts in regard to the Proposed Action for cultural resources and air quality, respectively.

Because the Proposed Action would not impact other resource areas, no other resource areas were analyzed for additive impacts. Note that, similar to Proposed Action projects, impacts to water resources, geological resources, biological resources, utilities, infrastructure, land use, and the surrounding community from past actions at ANC were negligible to absent as the actions were small in scale and occurred on previously developed areas.

3.3.1 Additive Impacts of Related Actions – Cultural Resources

Projects under the Proposed Action would not result in adverse effects to cultural resources. Of the related actions listed in Table 3-4, 10 were determined to have no adverse effects to cultural resources, 2 of the associated actions were determined to have an adverse effect to cultural resources, and 18 are future projects or those with unknown effects. One past project, the security fence upgrade at JBM-HH resulted in an adverse effect on the Fort Myer Historic District and the Arlington National Cemetery Historic District from the removal of trees that contributed to the feeling and setting of these properties and the introduction of physical and visual elements (the security fence and associated gates) that are out of character with the properties. Section 106 consultation for this action resulted in a memorandum of agreement with the SHPO in 2018 to resolve the adverse effects.

A current project, the ANC Southern Expansion and Associated Roadway Alignment, will result in adverse effects from the removal of the boundary wall along Southgate Road and demolition of the Operations Complex. Section 106 consultation for this action resulted in a memorandum of agreement with the SHPO in 2019 to resolve the adverse effects.

All past, present, and reasonably foreseeable future actions would not be directly or indirectly affected by or cause an effect on the Proposed Action. Although there are past, present, and future adverse effects to cultural/historic properties, these effects are being or will be mitigated through the NHPA Section 106 consultation process. There would be no unmitigated or significant adverse additive impacts to historic properties.

Table 3-4. Related Actions

Map Reference Number	Past Actions	Brief Description	Cultural Resources Impacts	Air Quality Impacts
NA, installation-wide, not mapped for security purposes	Improve ANC CCTV Network	Installed closed-circuit television cameras along perimeter wall and associated infrastructure.	No adverse effects. NHPA Section 106 consultation completed.	None
1	Parking Garage Repair	Repaired nonhistorical ticketing booths and repaved parking area.	None. NHPA consultation not required.	None
2	Repair Perimeter Walls	Repaired perimeter walls in-kind along the southeast, north, and northeast sections of ANC.	No adverse effects. NHPA Section 106 consultation completed.	None
3	Retrofit Patton Gates with motorized hardware	Retrofit gates to facilitate motorized sliding operation.	None. NHPA consultation not required.	None
4	Replace Gate 110, Selfridge Gate, and radar gate	Replaced 110 and Selfridge gates with automated vehicle gates and replaced radar gate with new manual gate.	None. NHPA consultation not required.	None
5	Welcome Center Doors	Changed opening direction of doors and safety rails (move from outside to inside).	None. NHPA consultation not required.	None
6	ANC Wi-Fi Expansion	Extended the coverage of wireless internet access on ANC to the Memorial Amphitheater and external surrounding area, Service Complex and Columbarium courts and surrounding areas.	No adverse effects. NHPA Section 106 consultation completed.	None
7	ANC Portable Guard Booth on Memorial Avenue	Emplaced a trailer-mounted, non-permanent guard booth on Memorial Avenue for security purposes.	Section 106 streamlined activity covered under Programmatic Agreement.	None
8	New Guard Booth and Pedestrian Access at the 123 (Contractor) Entrance	Installed a pre-manufactured guard booth and pedestrian gate, modified existing boundary wall, reconfigured traffic islands, and installed ADA-compliant curbs.	Section 106 streamlined activity covered under Programmatic Agreement.	None
9	ANC Memorial Avenue Crosswalk	Installed a new crosswalk apron at the north side of Memorial Avenue, repaired the existing Welcome Center crosswalk apron at the south side of Memorial Avenue, and removed the small pedestrian crosswalk at the vehicle entry point on Memorial Avenue.	No adverse effects. NHPA Section 106 consultation completed.	None

Table 3-4. Related Actions

Map Reference Number	Past Actions	Brief Description	Cultural Resources Impacts	Air Quality Impacts
10	Southgate Fence Upgrade	Installed approximately 221 linear feet of 8-foot-high, pre-finished steel security fence along Southgate Road.	None. NHPA consultation not required.	None
11	McClellan Drive Automobile and Pedestrian Traffic Control Device Upgrade	Replaced existing bicycle racks on McClellan Drive with black stanchions with black chain that are more aesthetically pleasing and easier to move.	No adverse effects.	None
12	Access Control Point Enhancements with Common Access Card Enabled Gates	Enhanced nonhistorical automated gates that require after-hours access with CAC-reading capabilities.	None. NHPA consultation not required.	None
13	North Boundary Security Fence	Installed 1,200 linear feet of 8-foot-tall black powder-coated steel picket fence along Marshall Drive, parallel and to the north of ANC's stone boundary wall.	No adverse effects. NHPA Section 106 consultation completed.	None
14	Northeast Fence Upgrade	Removed existing nonhistorical chain-link fence and installed approximately 780 linear feet of 8-foot-high, powder-coated steel security fence.	None. NHPA consultation not required.	None
15	Joint Base Myers – Henderson Hall Security Fence Upgrade (U.S. Army, 2018)[1]	Installed a 2-mile-long, 8-foot-tall ornamental security fence, five vehicle entry points, and an intrusion detection system along the JBM-HH and ANC perimeter.	Adverse effects. Memorandum of agreement developed and signed to minimize and mitigate impacts.	Temporary and localized changes to air quality as a result of fugitive dust and vehicle emissions. No significant impacts.

Table 3-4. Related Actions

Map Reference Number	Present and Future Actions	Brief Description	Cultural Resources	Air Quality
16	ANC Southern Expansion (U.S. Army, 2019)[1]	Includes the closure and removal of Southgate Road, the construction of a new access road for traffic to/from JBM-HH, the realignment of Columbia Pike, the modification of the Route 27 interchange at Columbia Pike, the development of the space for cemetery use including integration of the Air Force Memorial, and the conversion of Patton Drive—from South Gate to Eisenhower Drive—to a pedestrian trail. The new access road would include traffic control (signage, speed limits, etc.) to meet Arlington County and Virginia Department of Transportation design standards. The undertaking also involves land acquisitions to accomplish the project. Expansion includes security measures.	Adverse effects. Memorandum of agreement developed and signed to minimize and mitigate impacts.	Air quality impacts during construction would be short-term and minor. Construction emissions would be below major source thresholds. Future emissions would not exceed NAAQS and would conform to the State Implementation Plan.
17	Develop Mobile Vehicle Screening Area on Memorial Avenue[2]	Mobile guard shack and associated infrastructure to accommodate 100% undercarriage vehicle screening capability for buses and vehicles entering ANC via Memorial Avenue. Project includes pavement of pull-off lane, pop-up bollards, associated utility lines, and infrastructure. Long-term plan should organize space for a rejection lane.	Actions to be analyzed in future NEPA document and separate NHPA Section 106 consultation.	Action to be analyzed in future NEPA document. Negligible to minor impacts anticipated based on scale of projects.
NA – Facility Wide	Enhance Unobstructed Space During New Construction[2]	Install bollard and chain assemblies, selective vegetation, etc., with varying standoff distance depending on controlled/uncontrolled status.		
NA – Facility Wide	Install Unidirectional Communications[2]	Placement of hard-wired emergency call boxes with a carefully designed appearance to complement other site fixtures at ANC and the cemetery landscape as a whole (may be combined with Wayfinding project described below).		

Table 3-4. Related Actions

Map Reference Number	Present and Future Actions	Brief Description	Cultural Resources	Air Quality
18	Upgrading Security at Perimeter Walls[2]	Retrofitting remaining walls not directly abutting JBM-HH that do not meet security standards to allow a consistent 8-foot-high enclosure across the complete ANC perimeter.	Actions to be analyzed in future NEPA document and separate NHPA Section 106 consultation	Action to be analyzed in future NEPA document. Negligible to minor impacts anticipated based on scale of projects.
19	Construct Vehicle Screening Facility at Visitor Parking Garage Entry with Associated Circulation[2]	Structure and associated infrastructure to accommodate 100% undercarriage vehicle screening capability for buses and vehicles entering the parking garage. Project includes pavement of pull-off lane, pop-up bollards, return lane, associated utility lines, and infrastructure.		
20	Install Memorial Avenue Improvements[2]	Reconfigure pedestrian plaza adjacent to north side of Welcome Center, close existing entry to north side of Welcome Center, infill hedgerow just north of Welcome Center to provide continuous visual theme from Memorial Avenue, define pedestrian circulation from Memorial Avenue into security screening facility.		
21	Collaborate with WIMSA Memorial Foundation, Inc. to Elevate WIMSA's Role and Visibility as a Museum and Attraction[2]	Renovate interior as needed, to accommodate interpretive space that more effectively links the building with the ANC mission. Improve WIMSA's visibility through signage, organized events and ceremonies, and improved access to guest amenities.		
22	ADA Improvements to Memorial Amphitheater Exterior[2]	Improve ramp and seating to comply with ADA.		
23	Rehabilitate Historians' Offices and Restrooms on Lower Level of Amphitheater[2]	Interior renovation of administrative, interpretive, and storage space and guest amenities.		

Table 3-4. Related Actions

Map Reference Number	Present and Future Actions	Brief Description	Cultural Resources	Air Quality
24	Convert North Parcel into Permanent Service Satellite[2]	Convert north parcel into permanent service satellite laydown/storage yard, using a design that allows for potential relocation of perimeter wall to integrate the parcel with the rest of ANC.	Actions to be analyzed in future NEPA document and separate NHPA Section 106 consultation	Action to be analyzed in future NEPA document. Negligible to minor impacts anticipated based on scale of projects.
NA – Facility Wide	Upgrade Benches and Water Fountains to ADA Compatibility[2]	Replace existing benches with new benches that meet ADA requirements (installation wide).		
NA – Facility Wide	Install Wayfinding[2]	Install kiosk-type devices to aid visitor experience at ANC (installation-wide; may be combined with unidirectional communications project described above).		
25	Ord & Weitzel Gateway Rehabilitation	Rehabilitation of the gateway on the north side of the cemetery and focus on reassembly of historic stone columns. Includes proposed single-story 15-foot × 12-foot security guard house with a hipped roof and an 8-foot roof overhang inside the cemetery, south of the existing boundary wall and east of the vehicular and pedestrian entries.	No adverse effects. NHPA Section 106 consultation completed.	Negligible to minor impacts anticipated.

ADA = Americans with Disabilities Act; ANC = Arlington National Cemetery; CCTV = closed-circuit television; JBM-HH = Joint Base Myer – Henderson Hall; NA = not applicable; NAAQS = National Ambient Air Quality Standards; NEPA = National Environmental Policy Act; NHPA = National Historic Preservation Act; WIMSA = Women in Military Service for America

1. Analysis summarized from NEPA environmental assessment (U.S. Army, 2018; U.S. Army, 2019).
2. Project identified in 2020 ANC Real Property Master Plan update and will be analyzed in future NEPA document prior to execution.

Figure 3-2. Related Actions

3.3.2 Additive Impacts of Related Actions – Air Quality

The Proposed Action in combination with the related actions listed in Table 3-4 are not expected to contribute to significant effects to air quality or result in exceedances of the NAAQS. GHG emissions would occur under all Proposed Action alternatives. Approximately 824 CO_2e tons would be emitted temporarily during construction/installation activities. This represents approximately 0.07 percent of Arlington County's annual GHG emissions and a nominal increase in U.S. emissions.

Climate change impacts include weather and other natural events that could impact future ANC operations, such as increased extensive, violent storms (IPCC, 2014). The Proposed Action would be resilient in the face of increased storms and heavy rainfall. They would not cause or be subject to erosion.

While related actions and the Proposed Action would contribute GHGs to the atmosphere, these would be minor and temporary, only being emitted during construction and renovation due to operation of fossil fuel combusting equipment. Climate change is a global phenomenon caused at least in part, by increasing concentrations of GHG emissions. While climate change results from the incremental addition of GHG emissions from millions of individual sources, the significance of an individual source alone is impossible to assess on a global scale beyond the overall need for global GHG emission reductions to avoid catastrophic global outcomes. The GHG emissions from this project would be both minor and temporary and would not cause a significant increase in overall GHG emissions and climate change. It is important to note that the Army Climate Strategy calls for large overall reductions in emissions, and that these would tend to offset the effects of the emissions associated with this action.

3.4 Other NEPA Considerations

3.4.1 Relationship of Short-Term Uses and Long-Term Productivity

NEPA requires an analysis of the relationship between a project's short-term impacts on the environment and the effects that these impacts may have on the maintenance and enhancement of the long-term productivity of the affected environment. Impacts that narrow the range of beneficial uses of the environment are of particular concern. This refers to the possibility that choosing one development site reduces future flexibility in pursuing other options or that using a parcel of land or other resources often eliminates the possibility of other uses at that site.

Because the Proposed Action would occur in areas that are previously developed and would upgrade existing features at ANC, there would be no short-term impacts on the environment. The Proposed Action would not result in any impacts that would reduce environmental productivity or narrow the range of beneficial uses of the environment as the productivity and uses would remain the same.

3.4.2 Regulatory Compliance

Table 3-5 lists the environmental protection statutes and other environmental requirements and the Proposed Action's compliance with those.

Table 3-5. Proposed Action Compliance with Applicable Regulations

Federal Statute	Status of Compliance
Clean Air Act (42 U.S.C. section 7401 et seq.)	Compliant. See Section 3.2 (Air Quality) and Appendix B (Air Quality Supporting Information and Record of Non-Applicability).
Clean Water Act (33 U.S.C. section 1251 et seq.)	Compliant. See Chapter 3 (paragraph on water resources, page 3-1) and Appendix C (Coastal Consistency Determination).
Coastal Zone Management Act (16 U.S.C. section 1451 et seq.)	Compliant. Consistent to the maximum extent practicable. See Appendix C Appendix C(Coastal Consistency Determination).
National Historic Preservation Act (54 U.S.C. section 300101 et seq.)	Compliant; no adverse effects. See Section 3.1 (Cultural Resources) and Appendix A (Cultural Resources Documentation and NHPA Section 6 Consultation).
Endangered Species Act (16 U.S.C. section 1531 et seq.)	Compliant. See Chapter 3 (paragraph on biological resources, page 3-2). The Proposed Action would not result in takes of listed species.
Migratory Bird Treaty Act (16 U.S.C. section 703 et seq.)	Compliant. See Chapter 3 (paragraph on biological resources, page 3-2). The Proposed Action would not result in takes of migratory birds.
EO 11988, Floodplain Management	Compliant. See Chapter 3 (paragraph on water resources, page 3-1). There are no FEMA-designated 100-year or 500-year floodplains within the Proposed Action areas.
EO 12088, Federal Compliance with Pollution Control Standards	Compliant. The Proposed Action would comply with all applicable pollutions control standards including the management of hazardous materials and wastes and stormwater pollution prevention.
EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations	Compliant. See Chapter 3 (paragraph on surrounding community, page 3-3). Proposed Action impacts are confined to ANC. The Proposed Action would have no impacts to minority or low-income populations.

ANC = Arlington National Cemetery; EO = Executive Order; FEMA = Federal Emergency Management Agency; U.S.C. = United States Code

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4 Agencies and Organizations Consulted

This chapter identifies the agencies and organizations consulted in the preparation and review of this EA. These agencies are listed below. Appendix D contains related correspondence.

- Joint Base Myer Henderson-Hall
- Washington Headquarters Services, Facilities Services Directorate
- George Washington Memorial Parkway - National Park Service
- Virginia Department of Environmental Quality
- Virginia Department of Transportation
- Arlington County
- Washington Metropolitan Area Transit Authority

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5 Preparers

This EA was prepared collaboratively between Department of Defense and contractor staff.

U.S. Department of Defense

Name	Branch/Organization	Role
Stacey Rosenquist	Arlington National Cemetery	Environmental Manager
Caitlin Smith	Arlington National Cemetery	Cultural Resources Manager
Julie Darsie	Naval Facilities Engineering Command	Cultural Resources Program Manager
Brian Cleven	Naval Facilities Engineering Command	Regional Archaeologist
Nik Tompkins-Flagg	Naval Facilities Engineering Command	NEPA Program Manager/Environmental Assessment Project Manager

Contractors

Name	Role	Years of Experience	Degree(s)
LEIDOS			
Brad Boykin	Air Quality	17	M.S., Biotechnology B.S., Biomedical Science
Chris Calabretta, Ph.D.	Geographical Information Systems Analysis	20	B.S., Biology Ph.D., Oceanography
Jennifer Combs	Editor	30+	B.S., Communications, Journalism
Peggy Farrell, PMP, QEP, CHMM	Senior QA/QC	30+	M.S., Natural Sciences and Environmental Studies B.A., Biology and Environmental Studies
Joseph Jimenez, RPA	Cultural Resources	30+	M.A., Anthropology B.A., Anthropology
Andrew Lissner, Ph.D.	Senior Management Review	30+	Ph.D., Biology B.S., Biology
Vincent Passaro, QEP, CESM	Project Manager	21	M.S., Environmental Science B.S., Fisheries and Wildlife Science
Chris Wildt	Cultural Resources	24	B.S., Anthropology

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Appendix A
Cultural Resources Documentation and NHPA Section 106 Consultation

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COMMONWEALTH of VIRGINIA

Department of Historic Resources

Travis A. Voyles
Acting Secretary of Natural and Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

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Director
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MEMORANDUM

DATE: 9 May 2022

DHR File # 2022-3867
DEQ Project # 22-060F

TO: Ms Caitlin E. Smith
ANC

FROM: Marc E. Holma, Architectural Historian (804) 482-6090
Review and Compliance Division

PROJECT: Security Upgrades, Arlington National Cemetery
Arlington County

_X_ This project will have an effect on historic resources. Based on the information provided, the effect will not be adverse.

____ This project will have an adverse effect on historic properties. Further consultation with DHR is needed under Section 106 of the NHPA.

___ Additional information is needed before we will be able to determine the effect of the project on historic resources. **Please see below.**

____ No further identification efforts are warranted. No historic properties will be affected by the project. Should unidentified historic properties be discovered during implementation of the project, please notify DHR.

____ We have previously reviewed this project. Attached is a copy of our correspondence.

___ Other (Please see comments below)

COMMENTS: **C: Mr. John Fisher, DEQ**

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033

Eastern Region Office
2801 Kensington Avenue
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

From: Smith, Caitlin E CIV USARMY HQDA ANC OSA (USA)
To: Rosenquist, Stacey M CIV USARMY HQDA ANC OSA (USA); TOMPKINS-FLAGG, Nicole Marie (Nik) CIV USN NAVFAC WASHINGTON DC (USA)
Subject: FW: Security Upgrades, Arlington National Cemetery (DHR File No. 2022-3737) | e-Mail #01205
Date: Wednesday, April 20, 2022 6:09:25 PM
Attachments: image001.png
ePIX Application 2022 3737.pdf

FYSA: DHR submission complete.

V/r,

Caitlin Smith, AIC PA
Cultural Resource Program Manager / Conservator
Arlington National Cemetery
1 Memorial Avenue
Arlington, VA 22211
e: caitlin.e.smith36.civ@army.mil
o: 703-614-1121
c: 703-963-9327

From: ePIX System <ePIX@dhr.virginia.gov>
Sent: Wednesday, April 20, 2022 6:06 PM
To: Smith, Caitlin E CIV USARMY HQDA ANC OSA (USA) <caitlin.e.smith36.civ@army.mil>
Subject: [Non-DoD Source] Security Upgrades, Arlington National Cemetery (DHR File No. 2022-3737) | e-Mail #01205

Dear Caitlin Smith:

Thank you for submitting your application through the ePIX system andrequesting the comments of the Department of Historic Resources on thereferenced project. Your application isbeing processed and our 30-day review period will start on the next businessday after submission. You will benotified if your application is insufficient or if additional materials arerequired for our review.

You may view the submitted application and track our review of thisproject through your ePIX account under "My Projects" (https://epix.dhr.virginia.gov). When our review is complete, comments will beemailed to you and attached to the application in your ePIX account. No project activities that have the potentialto impact historic properties should take place until the lead agency hasprovided a notice to proceed.

If you wish or are asked to submit additional materials in support ofyour application, documents must be submitted electronically to the appropriatereviewer. Submissions with a total sizeof less than 10mb may be submitted via email. Submissions larger than 10mb must

be made through VITA's Large FileTransfer Application (https://lft.virginia.gov/). Contact your reviewer for instructions.

Please reference the assigned DHR File Number on all futurecorrespondence.

If you have any questions concerning the review process or if we mayprovide any further assistance, please do not hesitate to contact me. We look forward to working with you on thisproject.

Sincerely,

Marc Holma
Review and Compliance Division

Print

Create New Application

This electronic form is to be used for the submission of new projects only. If you wish to submit addtional information in support of an existing project, please contact the reviewer assigned to that project.

Before using this form, please understand that the information being requested is important to our review. Incomplete information may lead to delays in the review of your project. Please read all questions carefully and respond as completely as possible. For security purposes, *your ePIX session will timeout after 20 minutes of inactivity* and any unsaved changes will be discarded. To ensure that no information is lost, we recommend saving your application after the completion of each section. If you have questions concerning the completion of this application, please contact DHR staff at ePIX@dhr.virginia.gov.

SECTION I. CONTACT INFORMATION

Submitted By

```
Ms. Caitlin Smith
1 Memorial Avenue
Arlington, Virginia 22211
703-963-9327
caitlin.e.smith36.civ@army.mil
```

Please indicate what your role in this project is:

Applicant Role Employee of federal or state agency responsible for compliance

If Other, please specify

SECTION II. GENERAL PROJECT INFORMATION

Project Name Security Upgrades, Arlington National Cemetery

Agency Project Number

Associated DHR File Number

Project Street Address

Independent Cities and/or Counties (multiple cities/counties are allowed):

City/County Name
Arlington

Town/Locality, if applicable

Agency Involvement

Please select one of the following options as they relate to the project you are submitting:

◉ My project involves a federal or state agency and requires review by DHR under the National Historic Preservation Act (Sections 106 or 110), Virginia Environmental Impact Reports Act or other provision of state or federal law.

○ I am seeking Technical Assistance from DHR in the assessment of potential impacts of my project on historic resources (e.g. federal or state involvement anticipated, initial project scoping, local government proffer or ordinance).

It is important that you know the nature of the federal or state involvement in your project. Please note that there are a number of state-managed programs that are federally funded (e.g. Transportation Enhancement Grants, some recreational trail grant programs, and many DHCD programs). Understanding the involvement of the agency and the program is helpful for our review.

In some cases there are multiple agencies involved in a project. In these cases, there is generally a "lead" agency. In order to help clarify this, please list the agencies in the order of their involvement in the project. If, for example, there are two agencies providing funding, please provide the contact information for the primary source of federal funding first.

Please select the agency, relationship, contact and click the **Select** button:

Agency	Relationship
Army	Federally Funded

SECTION III. PROJECT DESCRIPTION and CURRENT AND PAST LAND USE

We need to know as much as possible about the project that is being proposed as well as the current condition of the property. In the fields below, you will be required to provide descriptions that are no longer than 2000 characters. Additional and more detailed information can be uploaded and attached at the end of the application.

Overview and existing conditions

Please provide a general description of the project.

Arlington National Cemetery (ANC) proposes to upgrade security measures to meet antiterrorism and force protection (AT/FP) standards for federal facilities. This project identifies physical and operational security upgrades required to address deficiencies and improve the overall AT/FP posture of ANC. These include a memorandum of agreement (MOA) between ANC and Joint Base Myer – Henderson Hall for security services, establishing an on-site flexible operations center (FLEXOPS), upgrading perimeter fencing and boundaries, and upgrading interior bollards and barriers. ANC is currently preparing an Environmental Assessment (EA) to analyze the environmental consequences of the Proposed Action. The EA will analyze three action alternatives and a no action alternative. The three action alternatives all include the development of a MOA for security services, the establishment of a FLEXOPS, and the upgrades to interior bollards and barriers. The three alternatives only differ in the type of security fence upgrades to ANC Sections 52 and 53. Note that ANC is conducting separate Section 106 consultation for ANC Sections 52 and 53 (Department of Historic Resources File # 2021-5130, Northeast Boundary Wall Security Modifications Arlington National Cemetery), and this project Project Description component is not addressed in this package.

How many acres does the project encompass?

Number of Acres 639

Please describe the current condition and/or land use of the project area (e.g. paved parking lot, plowed field).

Current land use is a cemetery, arboretum, and public site, containing boundary walls, security fencing, bollards, paved roads, walkways, plazas, and contributing resources within the historic district. The proposed undertaking would include upgrade of ANC boundary fencing and walls to meet security standards along Memorial Avenue, at the Visitor Parking Garage area, at Sections 69 through 76, and the Ord & Weitzel Drive Gate. This element of the Proposed Action would install 71 removable bollards at 35 locations within the ANC. Seventeen of these 71 bollards (at 11 locations) would be replacements for existing outdated bollards (Enclosure Current Condition 2, Figure 1). The remaining 54 would be new bollards at 24 new locations.

Please describe any previous modifications to the property, including ground disturbance.

The areas are developed sites with previous ground disturbance caused by construction of cemetery buildings, roads, walkways, and walls. The area is classified as moderately to severe disturbances in the "Archaeological Potential & Past Ground Disturbance Map" from Attachment D, Application of National Register of Historic Places Criteria" for Arlington Previous Modifications National Cemetery.

Work involving buildings or structures

Does the project involve the rehabilitation, addition to, alteration, or demolition of any building structure over 50 years of age?

Buildings Over 50 YearsYes

If yes, please describe the work that is proposed in detail. Current photographs of affected building or structure, architectural or engineering drawings, project specifications and maps may be uploaded at the end of the application.

Ord & Weitzel Drive Gate (post-1966) does not comply with security standards. This non-historic gate features a hinged 4-foot-tall pedestrian gate, two 7-foot-tall (total height) red sandstone gate piers, and an automated sliding vehicle entry gate that is 5 feet, 6 inches tall. This gate would be upgraded to comply with security standards. This would be accomplished by replacing the steel pedestrian and vehicle gates with new 8-foot-tall gates and increasing the height of the existing sandstone gate piers to 10 feet tall. The existing gate pier capstones would be removed, and 3 feet of new matching red sandstone would be added. The original capstones would then be reinstalled, bringing the total height of the gate piers to 10 feet tall. The Section 69 and 70 security fence upgrades would consist of the construction of a new steel fence topper on the existing masonry wall. Sections 69 and 70 currently feature a steel post-and-picket fence constructed on top of a masonry wall (cs. 1968-1973), which due to the height of the surrounding landscaping, does not reach the 8-foot security requirement. This fence upgrade would replace the current fence topper with one that is 8 feet high along the entire length of Sections 69 and 70. The fence topper would visually match the existing security fence of these sections as well as existing masonry walls with steel fence toppers in use along Southgate Road, immediately west of Section 69. Existing attachment sites would be reutilized to the extent possible to keep intact the integrity of the design, workmanship, and materials of the historic masonry wall. Where not possible, posts would be located away from the edges of capstones and away from joints between adjacent capstones. The majority

Details of the masonry wall would remain untouched.

Work involving ground disturbance

Is there any ground-disturbance that is part of this project?

Ground DisturbanceYes

If yes, describe the nature and horizontal extent of ground-disturbing activities, including construction, demolition, and other proposed disturbance. Plans, engineering drawings, and maps may be uploaded on the next page at the end of the application.

The installation of the bollards would require the excavation of holes up to 18 inches in diameter, each as deep as 12 inches. Total ground disturbance associated with the bollard installation would be approximately 125 square feet. Installation of replacement fencing along Memorial Avenue & the Visitor Parking Area: Each new fence post would require a 12-inch-diameter hole approximately 3 feet deep. Ground disturbance from the installation of approximately 390 steel posts (each 3 inches in diameter) for these two projects would total approximately 307 square feet. Installation of fencing outside the niche wall along Sections 70/71 through 76: Each new fence post would require a 12-inch-diameter hole approximately 3 feet deep. Ground disturbance from the installation of approximately 313 steel posts (each 3 inches in diameter) would total approximately 245 square

Extent of Activities feet.

What is the depth of the ground disturbance? If there are several components to the project, such as new building, utility trenches, and parking facilities, provide the approximate depth of each component.

The installation of the bollards would require the excavation of holes up to 18 inches in diameter, each as deep as 12 inches. Total ground disturbance associated with the bollard installation would be approximately 125 square feet. Installation of replacement fencing along Memorial Avenue & the Visitor Parking Area: Each new fence post would require a 12-inch-diameter hole approximately 3 feet deep. Ground disturbance from the installation of approximately 390 steel posts (each 3 inches in diameter) for these two projects would total approximately 307 square feet. Installation of fencing outside the niche wall along Sections 70/71 through 76: Each new fence post would require a 12-inch-diameter hole approximately 3 feet deep. Ground disturbance from the installation of approximately 313 steel posts (each 3 inches in diameter) would total approximately 245 square
Depth feet.

How large is the area where ground-disturbing activities will take place? (in acres)

Area Size 0.02

SECTION IV. AREA OF POTENTIAL EFFECT (APE)

The Area of Potential Effects (APE) is defined as the geographic area or areas within which a project may directly or indirectly cause changes in the character or use of historic properties, if they exist. It is not necessary for an historic property to be present in order to define an APE.

An example of a direct effect is the demolition of an historic building while an indirect effect would be the alteration of an historic setting resulting from the construction of a communications tower or the introduction of noise as the result of the construction of factory. An area such as the footprint of a proposed building is obviously within the APE, but you must also consider visual effects on the property and the limits of all ground-disturbing activity. So, any project may have two APEs - one for direct effects and one for indirect effects.

Please see our guidance on Defining Your APE for more detailed information on defining direct and indirect APEs. If you are using DHR's Data Sharing System, you should indicate the APE on the DSS map. For instructions on how to do this, consult the DSS general use guidelines.

Please provide a brief summary of and justification for the APE and upload your APE map at the end of the application. The written boundary description must match the submitted APE map.

The APE includes Arlington National Cemetery, locations where physical disturbance (i.e. digging) would occur, and areas where there would be a potential to change the visual setting, in this case the distance from the northern, eastern, and southern boundary walls where modifications from the fencing upgrades can be seen. There are no known archaeological resources recorded in the APE for direct physical disturbance. The above-ground cultural resources in the APE include the Arlington National Cemetery Historic District and the Arlington Ridge Park Historic District,
APE both of which are listed in the NRHP.

SECTION V. CONSULTING PARTIES AND PUBLIC INVOLVEMENT

The views of the public, Indian tribes and other consulting parties (e.g. local governments, local historical societies, affected property owners, etc.) that may have an interest in historic properties that may be affected by the project are essential to informed decision-making. In some cases, the public involvement necessary for other environmental reviews such as that under the National Environmental Policy Act

(NEPA) may be sufficient for the Section 106 process, but the manner in which the public is involved must reflect the nature and complexity of the proposed project and its effects on historic resources.

What consulting parties have you identified that have an interest in this project? Please describe your previous and future efforts to involve consulting parties.

Concurrent with submission of this application, we are inviting the National Park Service, George Washington Memorial Parkway, VDEQ, VDOT, Arlington County, JBMHH, and WMATA to be consulting parties. Concurrent with submission of this application, we are posting a notification package on the official ANC website (http://www.arlingtoncemetery.mil)for public review and comment. ANC will host a public meeting to provide information and solicit comments on the Draft EA per NEPA and Section 106 of the National Historic Preservation Act and The Programmatic Agreement with ANC, Virginia State Historic Preservation Officer, and the Advisory Council on Historic Preservation for the Operation, Maintenance, and Repair Activities at ANC. The meeting will be an open house format with informative displays and materials available for public review. ANC staff will be present to answer general questions on the proposed security measures, the Draft EA, and Section 106 of the National Historic Preservation Act. You may arrive anytime during the open house. Date: Tuesday, May 3, 2022 Address: ANC Welcome Center 1 Memorial Avenue Arlington, VA 22211 Time: 3:00 p.m. – 5:00 p.m. Comments on the Draft EA or Section 106 may be submitted in writing at the public meeting or by email, NAVFACWASHNEPA1@NAVY.MIL, during the 30-day public comment Consulting Parties period, April 20 through May 20, 2022.

Please provide information on any previous or future efforts to involve the public, including public hearings, public notices, and other efforts.

Concurrent with submission of this application, we are posting a notification package on the official ANC website (http://www.arlingtoncemetery.mil)for public review and comment. ANC will host a public meeting to provide information and solicit comments on the Draft EA per NEPA and Section 106 of the National Historic Preservation Act and The Programmatic Agreement with ANC, Virginia State Historic Preservation Officer, and the Advisory Council on Historic Preservation for the Operation, Maintenance, and Repair Activities at ANC. The meeting will be an open house format with informative displays and materials available for public review. ANC staff will be present to answer general questions on the proposed security measures, the Draft EA, and Section 106 of the National Historic Preservation Act. You may arrive anytime during the open house. Date: Tuesday, May 3, 2022 Address: ANC Welcome Center 1 Memorial Avenue Arlington, VA 22211 Time: 3:00 p.m. – 5:00 p.m. Comments on the Draft EA or Section 106 may be submitted in writing at the public meeting or by email, NAVFACWASHNEPA1@NAVY.MIL, during the 30-day public comment Public Involvement period, April 20 through May 20, 2022.

SECTION VI. PREVIOUSLY IDENTIFIED HISTORIC RESOURCES

In order for this application to be considered complete, you must determine if there are any known historic resources in the APE and provide this information to us. This step is generally referred to as a DHR

Archives Search. More information on how to acquire this information can be found in our guidance document Obtaining an Archives Search.

Has any portion of the APE been previously surveyed for archaeological and/or architectural resources?

SurveysYes

If yes, describe and provide the names of any reports that you are aware of.

-Virginia Department of Historic Resources, Historic District Inventory, Arlington National Cemetery, Arlington, Virginia. -National Register of Historic Places Nomination Form, Arlington National Cemetery, Arlington, Virginia. April 2014. -Historic Resources Inventory for Arlington National Cemetery, Arlington, Virginia, May 2012. -Application of National Register of Historic Places Criteria for Archaeology, John Haynes U.S. Survey Reports Army Corps of Engineers, Norfolk District, March 2013.

Are there any previously recorded archaeological sites or architectural resources, including historic districts or battlefields within the APE?

Recorded ResourcesYes

You must upload in Section VIII of this application the Archives Search Map showing previously recorded resources in the APE and the DSS reports for all previously recorded resources.

SECTION VII. ADDITIONAL CONTACTS TO THE APPLICATION

Last Name	First Name	Organization
Smith	Caitlin	Army

SECTION VIII. UPLOAD FILES FOR THE APPLICATION

Document Name	File Name	Note
Other - Project overview letter	ANC Security Upgrades S106 Letter SHPO_220420.pdf	Letter contains overview of project, project description, determination of effects, & description of enclosures.
Other - Project description, APE, & supporting documents	Revised Final ANC Security Upgrades S106 Letter SHPO_Enclosures.pdf	Enclosure contains: project description, APE description and maps, assessments of effects, maps of archaeological potential, photographs and drawings.
Environmental Assessment/Impact Statement	Public DEA ANC SU April 2022.pdf	

Appendix B
Air Quality Supporting Information and Record of Non-Applicability

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General Information

- Action Location
Base: ARLINGTON NATIONAL CEMETARY
State: Virginia
County(s): Arlington
Regulatory Area(s): Washington, DC-MD-VA

- Action Title: Security Upgrades Arlington National Cemetery

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2023

- Action Purpose and Need:
The purpose of the Proposed Action is to upgrade security at ANC. The Proposed Action is needed to remedy deficiencies and improve the overall security posture at ANC. As an installation under the jurisdiction of the United States Army—and one of unparalleled meaning to the Nation—the safety and security of its resources and visitors are of upmost importance.

- Action Description:
The Proposed Action comprises the following projects described in The Environmental Assessment Sections 2.2.1 through 2.2.4. These projects were identified to address deficiencies in security that can be implemented within the next 5 years at ANC. Figure 2-1 shows the locations of these projects.

- Point of Contact
Name: Brad Boykin
Title: CTR
Organization: Leidos
Email: boykinb@leidos.com
Phone Number: 979-575-3552

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Security Upgrades

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources. The purpose of these guides is to provide authoritative documentation for National Environmental Policy Act and General Conformity analyses.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location
County: Arlington
Regulatory Area(s): Washington, DC-MD-VA

- Activity Title: Security Upgrades

- Activity Description:
Total ground disturbance 843.77 square feet for fence upgrades.
- Activity Start Date

Start Month: 1
Start Month: 2023

- Activity End Date
Indefinite: False
End Month: 12
End Month: 2023

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.451649
SO_x	0.008632
NO_x	2.377562
CO	3.604709
PM 10	0.188547

Pollutant	Total Emissions (TONs)
PM 2.5	0.090374
Pb	0.000000
NH_3	0.001689
CO_2e	823.5

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 6
Number of Days: 0

2.1.2 Demolition Phase Assumptions

- General Demolition Information
Area of Building to be demolished (ft^2): 843.77
Height of Building to be demolished (ft): 7

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0382	0.0006	0.2766	0.3728	0.0127	0.0127	0.0034	58.549
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1830	0.0024	1.2623	0.7077	0.0494	0.0494	0.0165	239.49
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.282	000.002	000.220	003.283	000.007	000.006		000.023	00323.276
LDGT	000.358	000.003	000.388	004.597	000.009	000.008		000.024	00417.298
HDGV	000.706	000.005	001.021	015.119	000.022	000.019		000.045	00770.239
LDDV	000.112	000.003	000.133	002.524	000.004	000.004		000.008	00313.527
LDDT	000.253	000.004	000.380	004.330	000.007	000.006		000.008	00445.483
HDDV	000.493	000.013	004.921	001.743	000.169	000.155		000.028	01496.485
MC	002.436	000.003	000.747	012.951	000.027	000.024		000.054	00397.607

2.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (0.00042 * BA * BH) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
0.00042: Emission Factor (lb/ft^3)
BA: Area of Building to be demolished (ft^2)
BH: Height of Building to be demolished (ft)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building being demolish (ft^2)

BH: Height of Building being demolish (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)
0.25: Volume reduction factor (material reduced by 75% to account for air space)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 12
Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information
Area of Site to be Trenched/Excavated (ft^2): 843.77
Amount of Material to be Hauled On-Site (yd^3): 8.12
Amount of Material to be Hauled Off-Site (yd^3): 8.12

- Trenching Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipment Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.634	000.007	000.676	005.626	000.017	000.015		000.033	00364.981
LDGT	000.819	000.010	001.163	008.688	000.019	000.017		000.034	00487.852
HDGV	001.292	000.015	002.999	025.303	000.045	000.040		000.045	00760.330
LDDV	000.265	000.003	000.321	003.488	000.007	000.006		000.008	00370.175
LDDT	000.567	000.005	000.859	007.093	000.008	000.008		000.008	00577.145
HDDV	000.970	000.014	009.604	003.036	000.373	000.343		000.031	01589.614
MC	002.482	000.008	000.828	015.260	000.029	000.026		000.051	00398.308

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase
$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase
$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment

WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2023

- Phase Duration
Number of Month: 12
Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft^2): 843.77
Height of Building (ft): 8
Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0754	0.0013	0.5027	0.3786	0.0181	0.0181	0.0068	128.79
Forklifts Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0258	0.0006	0.1108	0.2145	0.0034	0.0034	0.0023	54.454
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0364	0.0007	0.2127	0.3593	0.0080	0.0080	0.0032	66.879

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e

LDGV	000.282	000.002	000.220	003.283	000.007	000.006		000.023	00323.276
LDGT	000.358	000.003	000.388	004.597	000.009	000.008		000.024	00417.298
HDGV	000.706	000.005	001.021	015.119	000.022	000.019		000.045	00770.239
LDDV	000.112	000.003	000.133	002.524	000.004	000.004		000.008	00313.527
LDDT	000.253	000.004	000.380	004.330	000.007	000.006		000.008	00445.483
HDDV	000.493	000.013	004.921	001.743	000.169	000.155		000.028	01496.485
MC	002.436	000.003	000.747	012.951	000.027	000.024		000.054	00397.607

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase
$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft^3 to trips (0.42 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

VMT_{VT} = BA * BH * (0.38 / 1000) * HT

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft^3 to trips (0.38 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

1. General Information: The Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the General Conformity Rule (GCR, 40 CFR 93 Subpart B). ACAM is a computer model developed by the U.S. Air Force that is used in the determination of General Conformity applicability for proposed actions in nonattainment or maintenance designated areas. This report provides a summary of the ACAM analysis.

a. Action Location:

Base: ARLINGTON NATIONAL CEMETARY
State: Virginia
County(s): Arlington
Regulatory Area(s): Washington, DC-MD-VA

b. Action Title: Security Upgrades Arlington National Cemetery

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2023

e. Action Description:

The Proposed Action comprises the following projects described in The Environmental Assessment Sections 2.2.1 through 2.2.4. These projects were identified to address deficiencies in security that can be implemented within the next 5 years at ANC. Figure 2 1 shows the locations of these projects.

f. Point of Contact:

Name: Brad Boykin
Title: CTR
Organization: Leidos
Email: boykinb@leidos.com
Phone Number: 979-575-3552

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

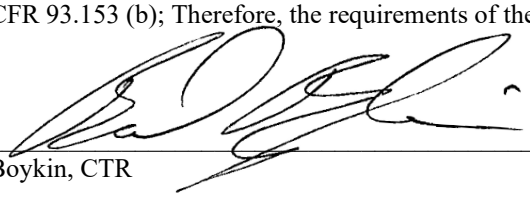
2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Washington, DC-MD-VA			
VOC	0.452	50	No
NOx	2.378	100	No
CO	3.605	100	No
SOx	0.009		
PM 10	0.189		
PM 2.5	0.090		
Pb	0.000		
NH3	0.002		
CO2e	823.5		

2024 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Washington, DC-MD-VA			
VOC	0.000	50	No
NOx	0.000	100	No
CO	0.000	100	No
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.



Brad Boykin, CTR

27 JAN 2022
DATE

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Appendix C
Coastal Zone Management Act
Coastal Consistency Determination

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Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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www.deq.virginia.gov

Travis A. Voyles
Acting Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

June 15, 2022

Ms. Stacey Rosenquist
Arlington National Cemetery
1 Memorial Avenue
Arlington, Virginia 22211
Via email. stacey.m.rosenquist.civ@army.mil

RE: Draft Environmental Assessment and Federal Consistency Determination, Security Upgrades, Arlington National Cemetery, Department of the Army, Arlington County, (DEQ 22-060F)

Dear Ms. Rosenquist:

The Commonwealth of Virginia has completed its review of the above-referenced project. The Department of Environmental Quality is responsible for coordinating Virginia's review of federal environmental documents submitted under the National Environmental Policy Act (NEPA) and responding to appropriate federal officials on behalf of the Commonwealth. DEQ is also responsible for coordinating Virginia's review of federal consistency documents submitted pursuant to the Coastal Zone Management Act (CZMA) and providing the state's response. This is in response to the April 2022 Draft Environmental Assessment (EA) and Federal Consistency Determination (FCD) (received April 20, 2022) submitted for the proposed project by the Department of the Army. The following agencies participated in the review of this proposal:

Department of Environmental Quality
Virginia Marine Resources Commission
Department of Wildlife Resources
Department of Conservation and Recreation
Department of Health
Department of Historic Resources

In addition, Arlington County and the Northern Virginia Regional Commission were invited to comment on the proposal.

Security Upgrades, Arlington National Cemetery
DEA and FCD, DEQ 22-060F

PROJECT DESCRIPTION

The Department of the Army (Army or applicant) proposes to make security upgrades at Arlington National Cemetery (ANC) in Arlington County, Virginia. The Army proposes to upgrade security to meet antiterrorism and force protection (AT/FP) standards for federal facilities. Physical and operational security upgrades (Proposed Action) have been identified to address deficiencies and improve the overall security posture of ANC. The Proposed Action projects include a memorandum of agreement (MOA) with Joint Base Myer-Henderson Hall (JBM-HH) for security screening services, retrofit of a room in the Welcome Center as a flexible operations center, fence and boundary wall upgrades, and interior bollard and barrier upgrades. Specifically, the Proposed Action would include:

- construction of a Flexible Operations Center in the ANC Welcome Center;
- fence and boundary wall upgrades;
- Ord & Weitzel Drive Gate upgrades;
- improvements to the section 52 and 53 wall;
- upgrades to the Memorial Avenue fence;
- visitor parking garage fence improvements;
- upgrades to the section 69 and 70 wall;
- replacement of the section 70/71 through 76 fence; and
- bollard and barrier upgrades.

CONCLUSION UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

Provided activities are performed in accordance with the recommendations which follow in the Environmental Impacts and Mitigation section of this report, the Proposed Action is unlikely to have significant effects on ambient air quality, important farmland, forest resources, and wetlands. It is unlikely to adversely affect species of plants or insects listed by state agencies as rare, threatened, or endangered.

ENVIRONMENTAL IMPACTS AND MITIGATION

1. Surface Waters and Wetlands. The EA (page 3-2) finds that no surface waters or wetlands occur within any Proposed Action areas. Appropriate best management practices would be implemented to ensure that contaminants are not introduced into water sources.

1(a) Agency Jurisdiction.

(i) Department of Environmental Quality

The State Water Control Board promulgates Virginia's water regulations covering a variety of permits to include the Virginia Pollutant Discharge Elimination System Permit regulating point source discharges to surface waters, Virginia Pollution Abatement Permit regulating sewage sludge, storage and land application of biosolids, industrial

wastes (sludge and wastewater), municipal wastewater, and animal wastes, the Surface and Groundwater Withdrawal Permit, and the Virginia Water Protection (VWP) Permit regulating impacts to streams, wetlands, and other surface waters. The VWP permit is a state permit which governs wetlands, surface water, and surface water withdrawals and impoundments. It also serves as §401 certification of the federal Clean Water Act §404 permits for dredge and fill activities in waters of the U.S. The VWP Permit Program is under the Office of Wetlands and Stream Protection, within the DEQ Division of Water Permitting. In addition to central office staff that review and issue VWP permits for transportation and water withdrawal projects, the six DEQ regional offices perform permit application reviews and issue permits for the covered activities:

- Clean Water Act, §401;
- Section 404(b)(i) Guidelines Mitigation Memorandum of Agreement (2/90);
- State Water Control Law, Virginia Code section 62.1-44.15:20 *et seq.*; and
- State Water Control *Regulations*, 9 VAC 25-210-10.

(ii) Virginia Marine Resources Commission

The Virginia Marine Resources Commission (VMRC) regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to Virginia Code §28.2-1200 through 1400. For nontidal waterways, VMRC states that it has been the policy of the Habitat Management Division to exert jurisdiction only over the beds of perennial streams where the upstream drainage area is 5 square miles or greater. The beds of such waterways are considered public below the ordinary high water line.

1(b) Agency Findings.

(i) Department of Environmental Quality

The VWP Permit program at the DEQ Northern Regional Office (NRO) did not indicate that surface waters and wetlands under its jurisdiction would be impacted by the Proposed Action.

(ii) Virginia Marine Resources Commission

VMRC finds that there are no tidal wetlands under its jurisdiction in close proximity to the project area. Accordingly, a permit from VMRC will not be required.

1(c) Recommendations. The review of National Wetland Inventory maps or topographic maps for locating wetlands or streams may not be sufficient to identify jurisdictional waters that may be impacted; there may need to be a site-specific review of the site by a qualified professional. Even if there will be no intentional placement of fill material in jurisdictional waters, potential water quality impacts resulting from construction site surface runoff must be minimized. This can be achieved by using Best Management Practices (BMPs). Should it be determined that construction activities will occur in or along any streams (perennial, intermittent, or ephemeral), open water or

wetlands, the applicant should contact DEQ-NRO VWPP staff to determine the need for any permits prior to commencing work that may impact surface waters or wetlands.

1(d) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the tidal and nontidal wetlands enforceable policy of the Virginia Coastal Zone Management (CZM) Program (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

For additional information, contact DEQ-NRO, Trisha Beasley at (703) 583-3940 or trisha.beasley@deq.virginia.gov and/or VMRC, Mark Eversole at (757) 247-8028 or mark.eversole@mrc.virginia.gov.

2. State Subaqueous Lands. According to the EA (page 3-2), there are no surface waters within any Proposed Action areas.

2(a) Agency Jurisdiction. The Virginia Marine Resources Commission (VMRC) regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to Virginia Code §28.2-1200 through 1400. For nontidal waterways, VMRC states that it has been the policy of the Habitat Management Division to exert jurisdiction only over the beds of perennial streams where the upstream drainage area is 5 square miles or greater. The beds of such waterways are considered public below the ordinary high water line.

2(b) Agency Findings. VMRC concurs that there are no state owned submerged lands in close proximity to the project area. Accordingly, a VMRC permit is not required. As proposed, VMRC has no objection to the consistency findings provided by the applicant.

2(c) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the subaqueous lands enforceable policy of the Virginia CZM Program (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

For additional information, contact VMRC, Mark Eversole at (757) 247-8028 or mark.eversole@mrc.virginia.gov.

3. Point Source Discharges. The EA does not indicate that the Proposed Action would result in point source discharges under the jurisdiction of the Virginia Pollutant Discharge Elimination program administered by DEQ.

3(a) Agency Jurisdiction. The Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) program to limit pollutants getting into streams, rivers and bays. DEQ administers the program as the Virginia Pollutant Discharge Elimination System (VPDES). The agency issues permits for: all point source discharges to surface waters, dischargers of stormwater from Municipal Separate Storm Sewer Systems (MS4s), and dischargers of stormwater from Industrial Activities.

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3(b) Agency Findings. The VPDES program at DEQ-NRO notes that the construction project may require coverage under a General Permit for Discharges from Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests (VAG83), for any dewatering during construction if petroleum contamination is encountered.

3(c) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the point source water pollution enforceable policy of the Virginia Coastal Zone Management (CZM) Program, provided a VPDES permit is obtained prior to construction, if applicable (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

4. Erosion and Sediment Control and Stormwater Management. According to the EA (page 2-14), the contractor would implement measures included in the existing stormwater pollution prevention plan for erosion and sediment controls and stormwater BMPs. The contractor would install, maintain, and operate erosion and sediment control measures, such as silt fences, storm drain protection, soil retention blankets, etc., prior to the start of any work that could cause pollution to state waters.

4(a) Agency Jurisdiction. The DEQ Office of Stormwater Management (OSWM) administers the following laws and regulations governing construction activities:

- Virginia Erosion and Sediment Control (ECS) Law (§ 62.1-44.15:51 *et seq.*) and Regulations (9 VAC 25-840);
- Virginia Stormwater Management Act (§ 62.1-44.15:24 *et seq.*);
- Virginia Stormwater Management Program (VSMP) regulation (9 VAC 25-870); and
- 2014 General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities (9 VAC 25-880).

In addition, DEQ is responsible for the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Construction Activities related to Municipal Separate Storm Sewer Systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program (9 VAC 25-890-40).

4(b) Requirements.

(i) Erosion and Sediment Control and Stormwater Management Plans

The applicant and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R) and Virginia Stormwater Management Law and Regulations (VSWML&R), including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities,

installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the total land disturbance of equal to or greater than 10,000 square feet (2,500 square feet in Chesapeake Bay Preservation Area) would be regulated by VESCL&R. Accordingly, the applicant must prepare and implement an Erosion and Sediment Control (ESC) Plan to ensure compliance with state law and regulations.

Land-disturbing activities that result in the total land disturbance of equal to or greater than 1 acre (2,500 square feet in Chesapeake Bay Preservation Area) would be regulated by VSWML&R. Accordingly, the applicant must prepare and implement a Stormwater Management (SWM) Plan to ensure compliance with state law and regulations.

The ESC and SWM Plans are submitted to the DEQ Northern Regional Office (NRO) that serves the area where the project is located for review for compliance. The applicant is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL 62.1-44.15 *et seq.*]

(ii) General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10)

The owner or operator of projects involving land-disturbing activities of equal to or greater than one acre is required to apply for registration coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). Construction activities requiring registration also include land disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan of development will collectively disturb equal to or greater than one acre.

- The SWPPP must be prepared prior to submission of the registration statement for coverage under the General Permit.
- The SWPPP must address water quality and quantity in accordance with the *VSMP Permit Regulations*.

General information and registration forms for the General Permit are available on Construction General Permit webpage. [Reference: Virginia Stormwater Management Act 62.1-44.15 *et seq.*; VSMP Permit Regulations 9 VAC 25-880 *et seq.*].

4(c) Recommendations. DEQ-NRO recommends the use of permeable paving for parking areas and walkways where appropriate, and denuded areas should be promptly revegetated following construction work.

4(d) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the nonpoint source water pollution enforceable policy of the

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Virginia Coastal Zone Management (CZM) Program, provided all required erosion and sediment control and stormwater management permits and approvals are obtained from DEQ-NRO prior to construction (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

5. Chesapeake Bay Preservation Areas. The EA does not discuss potential project impacts on lands analogous to Chesapeake Bay Preservation Areas at Arlington Cemetery. However, the Federal Consistency Determination (page 6), states that Chesapeake Bay Preservation Areas have not been designated on ANC by Arlington County, and that the Proposed Action would not result in development of any Chesapeake Bay Preservation Areas designated by Arlington County.

5(a) Agency Jurisdiction. The DEQ Office of Watersheds and Local Government Assistance Programs (OWLGAP) administers the Chesapeake Bay Preservation Act (Virginia Code §62.1-44.15:67 *et seq.*) and *Chesapeake Bay Preservation Area Designation and Management Regulations* (9 VAC 25-830-10 *et seq.*). Each Tidewater locality must adopt a program based on the Bay Act and *Regulations*. The Act and *Regulations* recognize local government responsibility for land use decisions and are designed to establish a framework for compliance without dictating precisely what local programs must look like. Local governments have flexibility to develop water quality preservation programs that reflect unique local characteristics and embody other community goals. Such flexibility also facilitates innovative and creative approaches in achieving program objectives. The regulations address nonpoint source pollution by identifying and protecting certain lands called Chesapeake Bay Preservation Areas. The regulations use a resource-based approach that recognizes differences between various land forms and treats them differently.

5(b) Chesapeake Bay Preservation Areas. In Arlington County, the areas protected by the Chesapeake Bay Preservation Act (Bay Act), as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the locality. RPAs include:

- tidal wetlands;
- certain non-tidal wetlands;
- tidal shores; and
- a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow.

All areas of the county not included in the RPA are designated as RMA.

5(c) Agency Findings. DEQ-OWLGAP notes that while lands analogous to RPA are not present on the project site, Arlington County's jurisdiction-wide RMA means that lands analogous to RMAs are present within the proposed project area.

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While Chesapeake Bay Preservation Areas (CBPA) are not locally designated on federal lands, this does not relieve a federal agency's responsibility to be consistent with the Chesapeake Bay Preservation Area enforceable policy of the Virginia Coastal Zone Management Program. Accordingly, federal agency activities on federal lands within Virginia's designated coastal zone are required to be consistent with the performance criteria of the *Regulations* (9 VAC 25-830-10 *et seq.*) on lands analogous to locally designated CBPAs (see Federal Consistency under the CZMA (pages 18 through 19) for additional information).

5(d) Requirements.

(i) General Performance Criteria

Proposed land-disturbing activities must be conducted consistent with the general performance criteria at 9 VAC 25-830-130 of the *Regulations*, including requirements to:

- minimize land disturbance (including access and staging areas);
- retain indigenous vegetation; and
- minimize post-development impervious surfaces.

For land disturbance over 2,500 square feet, the project must comply with:

- the requirements of the *Virginia Erosion & Sediment Control Handbook*, *Third Edition, 1992*; and
- stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations* (9 VAC 25-870-10).

(ii) Federal Agencies' Chesapeake Ecosystem Unified Plan

The 1998 *Federal Agencies' Chesapeake Ecosystem Unified Plan* (Plan) calls for the signatories of that Plan to cooperate with local and state governments in carrying out actions to comply with stormwater management regulations. The Plan further encourages low impact development practices that minimize the loss of natural areas and reduce impervious surfaces on federal facilities, as well as other best management practices to address stormwater management, and sediment and erosion control.

(iii) Chesapeake 2000

The *Chesapeake 2000* agreement committed government agencies to sound land use and stormwater quality controls. The signatories additionally committed the agencies to lead by example with respect to controlling nutrient, sediment and chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued *Directive No. 01-1: Managing Storm Water on State, Federal and District-owned Lands and Facilities*, which includes specific commitments for agencies to lead by example with respect to stormwater control.

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5(e) Conclusion. DEQ-OWLGAP concludes that, provided adherence to the above requirements, the proposed activity would be consistent with the Bay Act and the *Regulations*.

5(f) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the Chesapeake Bay Preservation Areas enforceable policy of the Virginia Coastal Zone Management (CZM) Program, provided the applicant complies with the above requirements (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

6. Floodplain Management. The EA (page 3-23) states that there are no FEMA-designated 100-year or 500-year floodplains within the Proposed Action areas.

6(a) Agency Jurisdiction. The DCR Division of Dam Safety and Floodplain Management (DSFM) is the lead coordinating agency for the Commonwealth's floodplain management program and the National Flood Insurance Program (Executive Oder 45). The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency (FEMA), and communities who elect to participate in this voluntary program manage and enforce the program on the local level through that community's local floodplain ordinance. Each local floodplain ordinance must comply with the minimum standards of the NFIP, outlined in 44 CFR 60.3; however, local communities may adopt more restrictive requirements in their local floodplain ordinance, such as regulating the 0.2% annual chance flood zone (shaded Zone X).

6(b) Requirements. All development within a Special Flood Hazard Area (SFHA) or floodplain, as shown on the locality's Flood Insurance Rate Map (FIRM), must be permitted and comply with the requirements of the local floodplain ordinance. Projects conducted by federal agencies within the SFHA must comply with federal Executive Order 11988: Floodplain Management.

DCR's Floodplain Management Program does not have regulatory authority for projects in the SFHA. The applicant/developer must contact the local floodplain administrator for an official floodplain determination and comply with the community's local floodplain ordinance, including receiving a local permit. Failure to comply with the local floodplain ordinance could result in enforcement action from the locality. The Army is encouraged to reach out to the local floodplain administrator to ensure compliance with the local floodplain ordinance.

6(c) Recommendations. DCR recommends the applicant access the Virginia Flood Risk Information System (VFRIS) to find flood zone information.

For additional information, contact DCR-DSFM, Angela Davis at (804) 371-6135 or angela.davis@dcr.virginia.gov.

9

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7. Air Pollution Control. The EA (page ES-2) finds that air emissions associated with security upgrades at ANC would not generate significant quantities of any pollutants. Furthermore, these emissions would be temporary, only lasting the duration of the upgrading construction process. Once completed, emissions would return to baseline levels. Therefore, no significant impacts to air quality would occur.

7(a) Agency Jurisdiction. The DEQ Air Division, on behalf of the State Air Pollution Control Board, is responsible for developing regulations that implement Virginia's Air Pollution Control Law (Virginia Code §10.1-1300 *et seq.*). DEQ is charged with carrying out mandates of the state law and related regulations as well as Virginia's federal obligations under the Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate DEQ regional office is directly responsible for the issuance of necessary permits to construct and operate all stationary sources in the region as well as monitoring emissions from these sources for compliance.

The Air Division regulates emissions of air pollutants from industries and facilities and implements programs designed to ensure that Virginia meets national air quality standards. The most common regulations associated with major State projects are:

- Open burning: 9 VAC 5-130 *et seq.*
- Fugitive dust control: 9 VAC 5-50-60 *et seq.*
- Permits for fuel-burning equipment: 9 VAC 5-80-1100 *et seq.*

7(b) Agency Findings. According to the DEQ Air Division, the project site is located in a designated ozone nonattainment area and an emission control area for the control of oxides of nitrogen (NO_x) and volatile organic compounds (VOCs).

7(c) Recommendation. The Army should take all reasonable precautions to limit emissions of NO_x and VOCs, principally by controlling or limiting the burning of fossil fuels.

7(d) Requirements.

(i) Fugitive Dust

During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the *Regulations for the Control and Abatement of Air Pollution*. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;

- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

(ii) Asphalt Paving

In accordance with 9 VAC 5-45-780, there are limitations on the use of "cut-back" (liquefied asphalt cement, blended with petroleum solvents) that may apply to paving activities associated with the project. Moreover, there are time-of-year restrictions on its use during the months of April through October in VOC emission control areas.

(iii) Open Burning

If project activities include the open burning of construction or demolition material or the use of special incineration devices, this activity must meet the requirements under 9 VAC 5-130 *et seq.* of the *Regulations* for open burning, and may require a permit. The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. The Army should contact Arlington County fire officials to determine what local requirements, if any, exist.

7(e) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the point source air pollution enforceable policy of the Virginia Coastal Zone Management (CZM) Program, provided all required permits and/or authorizations are obtained prior to construction (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

8. Solid and Hazardous Wastes and Hazardous Materials. According to the EA (page 2-14), the contractor would recycle materials such as cardboard, paper, aluminum/metal cans, plastic and glass jars/bottles, scrap metal, concrete, and asphalt and manage solid waste generated during the project in accordance with federal and state laws and regulations. The EA (page 3-3) finds that the Proposed Action would not impact hazardous materials and wastes. Small amounts of hazardous materials would be used during the construction phase of Proposed Action. Hazardous wastes would be disposed of in accordance with ANC's hazardous waste management program and all applicable regulations.

8(a) Agency Jurisdiction. On behalf of the Virginia Waste Management Board, the DEQ Division of Land Protection and Revitalization (DEQ-DLPR) is responsible for carrying out the mandates of the Virginia Waste Management Act (Virginia Code §10.1-1400 *et seq.*), as well as meeting Virginia's federal obligations under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation Liability Act (CERCLA), commonly known as Superfund. DEQ-DLPR also administers laws and regulations on behalf of the State Water Control Board governing Petroleum Storage Tanks (Virginia Code §62.1-44.34:8 *et seq.*), including Aboveground Storage Tanks (9 VAC 25-91 *et seq.*) and Underground Storage Tanks (9 VAC 25-580 *et seq.* and 9 VAC 25-580-370 *et seq.*), also known as 'Virginia

Tank Regulations', and § 62.1-44.34:14 *et seq*. which covers oil spills.

Virginia:

- Virginia Waste Management Act, Virginia Code § 10.1-1400 *et seq.*
- *Virginia Solid Waste Management Regulations*, 9 VAC 20-81 (9 VAC 20-81-620 applies to asbestos-containing materials)
- *Virginia Hazardous Waste Management Regulations*, 9 VAC 20-60 (9 VAC 20-60-261 applies to lead-based paints)
- *Virginia Regulations for the Transportation of Hazardous Materials*, 9 VAC 20-110.

Federal:

- Resource Conservation and Recovery Act, 42 U.S. Code sections 6901 *et seq.*
- U.S. Department of Transportation *Rules for Transportation of Hazardous Materials*, 49 *Code of Federal Regulations*, Part 107
- Applicable rules contained in Title 40, *Code of Federal Regulations*.

8(b) Agency Findings. DEQ-DLPR conducted a search of the project area of solid and hazardous waste databases (including petroleum releases) to identify waste sites in close proximity (200-foot radius) to the project site. The search identified one RCRA Small Quantity Generator and ten petroleum release sites within the project area which might impact the project. See DEQ-DLPR comments attached for details on the identified waste sites.

8(c) Requirements.

(i) Solid and Hazardous Waste Management

Any soil, sediment or groundwater that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations. All construction waste must be characterized in accordance with the *Virginia Hazardous Waste Management Regulations* prior to management at an appropriate facility.

(ii) Petroleum Contamination

If evidence of a petroleum release is discovered during construction, it must be reported to DEQ-NRO in accordance with Virginia Code § 62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq*. Petroleum-contaminated soils and groundwater that is generated during project implementation must be characterized and disposed of properly.

(iii) Asbestos-Containing Materials and Lead-Based Paint

All structures being demolished, renovated, or removed should be checked for

asbestos-containing materials (ACM) and lead-based paint (LBP) prior to demolition. If ACM or LBP are found, in addition to the federal waste-related regulations mentioned above, state regulations 9 VAC 20-81-620 (ACM) and 9 VAC 20-60-261 (LBP) must be followed.

8(d) Recommendations.

(i) Petroleum Release Sites

The identified Pollution Complaint (PC) cases should be further evaluated by the Army to establish the exact location, nature and extent of the petroleum releases and their potential to impact the proposed project. The Army should also contact the Tanks Program at DEQ-NRO at (703) 583-3800, for further information about the PC cases.

(ii) Pollution Prevention

DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

Questions or requests for further information regarding the above waste comments may be directed to DEQ-DLPR, Carlos Martinez at (804) 350-9962 or carlos.martinez@deq.virginia.gov.

9. Pesticides and Herbicides. DEQ recommends that the use of herbicides or pesticides for construction or landscape maintenance should be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used to the extent feasible. Contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information.

10. Natural Heritage Resources. The EA does not discuss potential project impacts on natural heritage resources.

10(a) Agency Jurisdiction.

(i) The Virginia Department of Conservation and Recreation's (DCR) Division of Natural Heritage (DNH).

DNH's mission is conserving Virginia's biodiversity through inventory, protection and stewardship. The Virginia Natural Area Preserves Act (Virginia Code §10.1-209 through 217), authorizes DCR to maintain a statewide database for conservation planning and project review, protect land for the conservation of biodiversity, and protect and ecologically manage the natural heritage resources of Virginia (the habitats of rare,

threatened and endangered species, significant natural communities, geologic sites, and other natural features).

(ii) The Virginia Department of Agriculture and Consumer Services (VDACS).

The Endangered Plant and Insect Species Act of 1979 (Virginia Code Chapter 39 §3.1-1020 through 1030) authorizes VDACS to conserve, protect and manage endangered and threatened species of plants and insects. Under a Memorandum of Agreement established between VDACS and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species.

10(b) Agency Findings.

(i) Natural Heritage Resources

DCR-DNH searched its Biotics Data System (Biotics) for occurrences of natural heritage resources from the project area. According to the information currently in Biotics, natural heritage resources have not been documented within the project boundary including a 100 foot buffer; although a predictive model identifying potential habitat for natural heritage resources intersects the project boundary. However, based on DCR biologist's review of the proposed project, a survey is not recommended for the resource.

(ii) State-listed Plant and Insect Species

DCR-DNH finds that the Proposed Action will not affect any documented state-listed threatened and endangered plant or insect species.

(iii) State Natural Area Preserves

DCR finds that there are no State Natural Area Preserves under the agency's jurisdiction in the project vicinity.

10(c) Recommendation. Contact DCR-DNH to secure updated information on natural heritage resources if the scope of the project changes and/or six months passes before the project is implemented, since new and updated information is continually added to the Biotics Data System.

10(d) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the commonwealth lands enforceable policy of the Virginia Coastal Zone Management (CZM) Program under DCR's jurisdiction (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

11. Wildlife Resources and Protected Species. According to the EA (page 3-2), the Proposed Action would not impact biological resources. All activities occur on previously developed areas and/or maintained lawn or landscaped areas. Wildlife present during

construction would be accustomed to human presence and activities. Migratory birds in the area would likely leave any area of disturbance. There would be no takes of migratory birds. Tree removal is not anticipated under the Proposed Action. The monarch butterfly (*Danaus plexippus*) is a species that may be seasonally present on ANC. This species is a candidate species for listing under the federal Endangered Species Act. Because the Proposed Action would not affect monarch butterfly habitat at ANC (milkweed [*Asclepias spp*.] and nectar-providing flowers), the Proposed Action would have no effect on the monarch butterfly.

11(a) Agency Jurisdiction. The Virginia Department of Wildlife Resources (DWR) (formerly the Department of Game and Inland Fisheries), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state- or federally-listed endangered or threatened species, but excluding listed insects (Virginia Code, Title 29.1). DWR is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S. Code §661 *et seq*.) and provides environmental analysis of projects or permit applications coordinated through DEQ and several other state and federal agencies. DWR determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce or compensate for those impacts. For more information, see the DWR website.

11(b) Agency Findings. DWR does not anticipate the Proposed Action to result in significant adverse impacts upon listed species or designated resources under its jurisdiction based on the scope and location of the proposed work.

11(c) Recommendations. The following general recommendations should be considered to minimize the impact of project construction on wildlife resources:

- Avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable. Avoidance and minimization of impact may include relocating stream channels as opposed to filling or channelizing as well as using, and incorporating into the development plan, a natural stream channel design and forested riparian buffers.
- Maintain undisturbed naturally vegetated buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams.
- Maintain wooded lots to the fullest extent possible.
- Design stormwater controls to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of Low Impact Development (LID). They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes.
- Adhere to a time-of-year restriction (TOYR) for tree removal and ground clearing

that is protective of resident and migratory songbird nesting from March 15 through August 15 of any year.
- Adhere to erosion and sediment controls during ground disturbance.
- Use matting made from natural/organic materials such as coir fiber, jute, and/or burlap to minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting.

11(d) CZMA Federal Consistency. The Proposed Action consistent to the maximum extent practicable with the wildlife and inland fisheries and commonwealth lands enforceable policies of the Virginia CZM Program under DWR's jurisdiction, provided project activities adhere to erosion and sediment controls (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

12. Public Water Supply. According to the EA (page 3-1), the Proposed Action would not impact water resources other than the installation of fence footers and bollard posts. The Proposed Action would not impact water or sewer infrastructure nor would it result in an increased demand for any utility service at ANC (EA, page 3-2).

12(a) Agency Jurisdiction. The Virginia Department of Health (VDH) Office of Drinking Water (ODW) reviews projects for the potential to impact public drinking water sources (groundwater wells, springs and surface water intakes). VDH administers both federal and state laws governing waterworks operation.

12(b) Agency Findings. VDH-ODW finds that there are no public groundwater wells located within a 1-mile radius of the project site and no surface water intakes located within a 5-mile radius of the project site. The proposed project is not within the watershed of any public surface water intakes. VDH-ODW did not indicate that the Proposed Action would involve the installation of septic systems under its jurisdiction.

12(c) Conclusion. VDH-ODW concludes that there are no apparent impacts to public drinking water sources due to this project.

12(d) CZMA Federal Consistency. The Proposed Action consistent to the maximum extent practicable with the shoreline sanitation enforceable policy of the Virginia CZM Program (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).

For additional information, contact VDH-ODW, Arlene Fields Warren at (804) 864-7781 or arlene.warren@vdh.virginia.gov.

13. Historic Resources. According to the EA (page 3-4), there are no known archaeological resources recorded in the area of potential effect (APE) for direct physical disturbance. The above-ground cultural resources in the APE include the Arlington National Cemetery Historic District and the Arlington Ridge Park Historic District, both of which are listed in the National Register of Historic Places (NRHP).

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13(a) Agency Jurisdiction. The Virginia Department of Historic Resources (DHR) conducts reviews of both federal and state projects to determine their effect on historic properties. Under the federal process, DHR is the State Historic Preservation Office, and ensures that federal undertakings-including licenses, permits, or funding-comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation at 36 CFR Part 800. Section 106 requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. The DHR Review and Compliance Division has additional information on applicable state and federal laws and how to submit an application for review.

13(b) Agency Findings. DHR finds that the project will have an effect on historic resources. However, based on the information provided, the effect will not be adverse.

For additional information, contact DHR, Marc Holma at (804) 482-6090 or marc.holma@dhr.virginia.gov.

14. Pollution Prevention. DEQ advocates that principles of pollution prevention be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source.

14(a) Recommendations. We have several pollution prevention recommendations that may be helpful in the construction of this project and in the operation of the facility:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the Army is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and it recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into utility maintenance and operation, to include the following: inventory control (record-keeping and centralized storage for hazardous materials), product substitution (use of non-toxic cleaners), and source reduction (fixing leaks, energy-efficient HVAC and equipment).

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Maintenance facilities should be designed with sufficient and suitable space to allow for effective inventory control and preventative maintenance.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and EMS. For more information, contact DEQ's Office of Pollution Prevention, Meghann Quinn at (804) 774-9076 or meghann.quinn@deq.virginia.gov.

15. Water Conservation. The following recommendations will result in reduced water use associated with the operation of the facility:

- Grounds should be landscaped with hardy native plant species to conserve water as well as lessen the need to use fertilizers and pesticides.
- Convert turf to low water-use landscaping such as drought resistant grass, plants, shrubs and trees.
- Low-flow toilets should be installed in new facilities.
- Consider installing low flow restrictors and aerators to faucets.
- Improve irrigation practices by:
  - upgrading sprinkler clock; water at night, if possible, to reduce evapotranspiration (lawns need only 1 inch of water per week, and do not need to be watered daily; overwatering causes 85% of turf problems);
  - installing a rain shutoff device; and
  - collecting rainwater with a rain bucket or cistern system with drip lines.
- Check for and repair leaks (toilets and faucets) during regular routine maintenance activities.

FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT

Pursuant to the Coastal Zone Management Act of 1972, as amended, and federal consistency regulations (15 CFR Part 930, Sub-part C, § 930.30 *et seq*.), all federal agency activities affecting any coastal use or resource will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management (CZM) Program. The Virginia CZM Program consists of a network of programs administered by several agencies. DEQ coordinates the review of Federal Consistency Determinations with agencies administering the enforceable policies and advisory policies of the Virginia CZM Program. In order to be consistent with the Virginia CZM Program, all the applicable permits and approvals listed under the enforceable policies must be obtained prior to commencing the project.

A Federal Consistency Determination for the Proposed Action was submitted that includes an analysis of the enforceable policies of the Virginia CZM Program. Pursuant to 15 CFR §930.41(a), DEQ is allowed up to sixty days to conduct a coordinated review and respond to submitted consistency determinations. The sixty-day review period for the Army's FCD began April 20, 2022 and ends June 17, 2022.

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FEDERAL CONSISTENCY PUBLIC PARTICIPATION

In accordance with Title 15, Code of Federal Regulations (CFR), §930.2, the public was invited to participate in the review of the FCD submitted for the proposal. Public notice of this proposed action was published in OEIR's Program Newsletter and on the DEQ website from May 2, 2022 through May 13, 2022. No public comments were received in response to the notice.

FEDERAL CONSISTENCY ANALYSIS

According to information provided in the FCD and EA, the construction and operation of the Proposed Action would have no effect on the following enforceable policies: tidal and nontidal wetlands, subaqueous lands, dunes and beaches, marine fisheries, wildlife and inland fisheries, plant pests and noxious weeds, commonwealth lands, point source water pollution, and shoreline sanitation. The state agencies responsible for the administration of the enforceable policies of the Virginia CZM Program generally agree with the findings of the FCD. The Army must ensure that the Proposed Action is consistent with the aforementioned policies. In addition, in accordance with 15 CFR, Subpart C, §930.39(c), DEQ encourages the Army to consider project impacts on the advisory policies of the Virginia CZM Program.

FEDERAL CONSISTENCY CONCURRENCE

Based on our review of the FCD, EA and the comments and recommendations submitted by agencies administering the enforceable policies of the Virginia CZM Program, DEQ concurs that the Proposed Action is consistent with the Virginia CZM Program, provided the Army obtains and complies with all applicable permits and approvals associated with the enforceable policies of the Virginia CZM Program. If, prior to construction, project activities should change significantly and any of the enforceable policies of the Virginia CZM Program would be affected, pursuant to 15 CFR §930.46(a), the Army must submit supplemental consistency determination to DEQ for review and concurrence. Other state approvals which may apply to this project are not included in this FCD. Therefore, the Army must ensure that the Proposed Action is constructed and operated in accordance with all applicable federal, state, and local laws and regulations.

REGULATORY AND COORDINATION NEEDS

1. Point Source Discharges. Contact DEQ-NRO, Bryant Thomas at (804) 396-5846 or bryant.thomas@deq.virginia.gov, to determine whether authorization may be required under VAG83 the General Permit for Discharges from Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests.

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2. Erosion and Sediment Control and Stormwater Management.

2(a) Erosion and Sediment Control and Stormwater Management. The Proposed Action must comply with Virginia's *Erosion and Sediment Control Law* (Virginia Code § 62.1-44.15:61) and *Regulations* (9 VAC 25-840-30 *et seq*.) and *Stormwater Management Law* (Virginia Code § 62.1-44.15:31) and *Regulations* (9 VAC 25-870-210 *et seq*.) as administered by DEQ. Activities that disturb 2,500 square feet or more in CBPAs would be regulated by *VESCL&R* and *VSWML&R*. Erosion and sediment control, and stormwater management requirements should be coordinated with DEQ-NRO, Mark Miller at 571-866-6487 or mark.miller@deq.virginia.gov.

2(b) General Permit for Stormwater Discharges from Construction Activities (VAR10). For land-disturbing activities of equal to or greater than one acre, the applicant is required to apply for registration coverage under the Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities (9 VAC 25-880-1 *et seq.*). Specific questions regarding the Stormwater Management Program requirements should be directed to DEQ-NRO, Mark Miller at 571-866-6487 or mark.miller@deq.virginia.gov

3. Chesapeake Bay Preservation Areas. The Proposed Action must be constructed and operated in a manner consistent with the *Chesapeake Bay Preservation Act* (Virginia Code §§ 10.1-2100 through 10.1-2114) and *Chesapeake Bay Preservation Area Designation and Management Regulations* (Virginia Code 9 VAC 25-830-10 *et seq*.) as administered by DEQ. The Proposed Action is subject to the general performance criteria of 9 VAC 25-830-130 for construction in lands analogous to RMA. To ensure project consistency with the Chesapeake Bay Preservation Areas enforceable policy of the Virginia CZM Program, contact DEQ-OWLGAP, Daniel Moore at (804) 774-9577 or daniel.moore@deq.virginia.gov.

4. Floodplain Management. The Proposed Action must comply with the local floodplain ordinance. Local floodplain administrator contact information may be found in DCR's Local Floodplain Management Directory.

5. Air Emissions. This project is subject to air regulations administered by DEQ. The following sections of the Code of Virginia and Virginia Administrative Code are applicable:

- fugitive dust and emissions control (9 VAC 5-50-60 *et seq*.);
- asphalt paving operations (9 VAC 5-45-780 *et seq*.) and
- open burning restrictions (9 VAC 5-130).

Contact Arlington County fire officials for information on any local requirements pertaining to open burning. For more information and coordination contact DEQ-NRO, Justin Wilkinson at (571) 408-1651 or justin.wilkinson@deq.virginia.gov.

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6. Solid and Hazardous Wastes.

6(a) Solid and Hazardous Waste Management Regulations. All solid waste, hazardous waste, and hazardous materials must be managed in accordance with all applicable federal, state, and local environmental regulations. For additional information concerning location and availability of suitable waste management facilities in the project area or if free product, discolored soils, or other evidence of contaminated soils are encountered, contact DEQ-NRO, Richard Doucette at (571) 866-6063 or richard.doucette@deq.virginia.gov.

6(b) Asbestos-Containing Material. The owner or operator, prior to the commencement of the activity, is responsible to thoroughly inspect affected structures for the presence of asbestos, including Category I and Category II nonfriable asbestos containing material (ACM). Upon classification as friable or non-friable, all waste ACM shall be disposed of in accordance with the Virginia Solid Waste Management Regulations (9 VAC 20-80-640), and transported in accordance with the Virginia regulations governing Transportation of Hazardous Materials (9 VAC 20-110-10 et seq.). Contact the DEQ-TRO, Sean Priest at (757) 763-9866 or jonathan.priest@deq.virginia.gov and the Department of Labor and Industry, Doug Wiggins (540) 562-3580 ext. 131 for additional information.

6(c) Lead-Based Paint. This project must comply with the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) regulations, and with the Virginia Lead-Based Paint Activities Rules and Regulations. For additional information regarding these requirements, contact the Department of Professional and Occupational Regulation at (804) 367-8500.

6(d) Petroleum Contamination. In accordance with Virginia Code §§ 62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq*., site activities involving excavation or disturbance of petroleum contaminated soils and or groundwater must be reported to DEQ-NRO, Randy Chapman at (571) 866-6517 or randy.chapman@deq.virginia.gov.

7. Natural Heritage Resources. Contact DCR-DNH, Rene Hypes at (804) 371-2708 or rene.hypes@dcr.virginia.gov, to secure updated information on natural heritage resources if the scope of the project changes and/or six months passes before the project is implemented, since new and updated information is continually added to the Biotics Data System.

8. Wildlife Resources and Protected Species. Contact DWR, Amy Martin at (804) 367-2211 or amy.martin@dwr.virginia.gov, for guidance on the implementation of appropriate mitigation measures for the protection of wildlife resources.

Thank you for the opportunity to review the Environmental Assessment and Federal Consistency Determination for the Arlington National Cemetery Security Upgrades in Arlington County. Detailed comments of reviewing agencies are attached for your

review. Please contact me at (804) 659-1915 or John Fisher at (804) 659-1919 for clarification of these comments.

Sincerely,

Bettina Rayfield, Program Manager
Environmental Impact Review and Long-Range Priorities

Enclosures

Ec: Amy Martin, DWR
Kristal McKelvey, DCR
Claire Gorman, VMRC
Arlene Warren, VDH
Roger Kirchen, DHR
Mark Schwartz, Arlington County
Robert Lazaro, NVRC

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

Fwd: NEW PROJECT Army Arlington National Cemetery Security Upgrades, DEQ 22-060F

1 message

Miller, Mark <mark.miller@deq.virginia.gov> Thu, May 12, 2022 at 10:00 AM
To: John Fisher <john.fisher@deq.virginia.gov>

Northern Regional Office comments regarding the Federal Consistency Determination request for *Army Arlington National Cemetery Security Upgrades, DEQ 22-060F* are as follows:

Land Protection Division – The project manager is reminded that if any solid or hazardous waste is generated/encountered during construction, the project manager would follow applicable federal, state, and local regulations for their disposal.

Air Compliance/Permitting - The project manager is reminded that during the construction phases that occur with this project; the project is subject to the Fugitive Dust/Fugitive Emissions Rule 9 VAC 5-50-60 through 9 VAC 5-50-120. In addition, should any open burning or use of special incineration devices be employed in the disposal of land clearing debris during demolition and construction, the operation would be subject to the Open Burning Regulation 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100.

Virginia Water Protection Permit (VWPP) Program – The project manager is reminded that a VWP permit from DEQ may be required should impacts to surface waters be necessary. Measures should be taken to avoid and minimize impacts to surface waters and wetlands during construction activities. The disturbance of surface waters or wetlands may require prior approval by DEQ and/or the U.S. Army Corps of Engineers. The Army Corps of Engineers is the authority for an official confirmation of whether there are federal jurisdictional waters, including wetlands, which may be impacted by the proposed project. DEQ may confirm additional waters as jurisdictional beyond those under federal authority. Review of National Wetland Inventory maps or topographic maps for locating wetlands or streams may not be sufficient; there may need to be a site-specific review of the site by a qualified professional. Even if there will be no intentional placement of fill material in jurisdictional waters, potential water quality impacts resulting from construction site surface runoff must be minimized. This can be achieved by using Best Management Practices (BMPs). If construction activities will occur in or along any streams (perennial, intermittent, or ephemeral), open water or wetlands, the applicant should contact DEQ-NRO VWPP staff to determine the need for any permits prior to commencing work that could impact surface waters or wetlands. Upon receipt of a Joint Permit Application for the proposed surface water impacts, DEQ VWP Permit staff will review the proposed project in accordance with the VWP permit program regulations and current VWP permit program guidance. VWPP staff reserve the right to provide comment upon receipt of a permit application requesting authorization to impact state surface waters, and at such time that a wetland delineation has been conducted and associated jurisdiction determination made by the U.S. Army Corps of Engineers.

Erosion and Sediment Control, Storm Water Management – DEQ has regulatory authority for the Virginia Pollutant Discharge Elimination System (VPDES) programs related to municipal separate storm sewer systems (MS4s) and construction activities. Erosion and sediment control measures are addressed in local ordinances and State regulations. Additional information is available at http://www.deq.virginia.gov/Programs/Water/StormwaterManagement.aspx. Non-point source pollution resulting from this project should be minimized by using effective erosion and sediment control practices and structures. Consideration should also be given to using permeable paving for parking areas and walkways where appropriate, and denuded areas should be promptly revegetated following construction work. If the total land disturbance exceeds 10,000 square feet, an erosion and sediment control plan will be required. Some localities also require an E&S plan for disturbances less than 10,000 square feet. A stormwater

management plan may also be required. For any land disturbing activities equal to one acre or more, you are required to apply for coverage under the VPDES General Permit for Discharges of Storm Water from Construction Activities. The Virginia Stormwater Management Permit Authority may be DEQ or the locality.

Other VPDES Permitting – A construction project may require coverage under the VAG83 permit for discharges from petroleum contaminated sites, groundwater remediation, and hydrostatic tests for any hydrostatics tests on any new piping installed, or for any potential dewatering during construction if petroleum contamination is encountered.

Mark Miller
Environmental Manager II
Enforcement/Pollution Response/Environmental Review
VDEQ-NRO
13901 Crown Ct, Woodbridge, VA 22193
Main# 703.583.3800; Cell# 571.866.6487
Email: mark.miller@deq.virginia.gov-

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

Re: NEW PROJECT Army Arlington National Cemetery Security Upgrades, DEQ 22-060F

1 message

Gavan, Lawrence <larry.gavan@deq.virginia.gov> Tue, Apr 26, 2022 at 1:51 PM
To: "Fisher, John" <john.fisher@deq.virginia.gov>

(a) Agency Jurisdiction. The Department of Environmental Quality (DEQ) administers the *Virginia Erosion and Sediment Control Law and Regulations* (*VESCL&R*) and *Virginia Stormwater Management Law and Regulations* (*VSWML&R*).

(b) Erosion and Sediment Control and Stormwater Management Plans. The Applicant and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with *VESCL&R* and *VSWML&R*, including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the total land disturbance of equal to or greater than 10,000 square feet (2,500 square feet in Chesapeake Bay Preservation Area) would be regulated by *VESCL&R*. Accordingly, the Applicant must prepare and implement an erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. Land-disturbing activities that result in the total land disturbance of equal to or greater than 1 acre (2,500 square feet in Chesapeake Bay Preservation Area) would be regulated by *VSWML&R*. Accordingly, the Applicant must prepare and implement a Stormwater Management (SWM) plan to ensure compliance with state law and regulations. The ESC/SWM plan is submitted to the DEQ Regional Office that serves the area where the project is located for review for compliance. The Applicant is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL 62.1-44.15 et seq.]

(c) General Permit for Stormwater Discharges from Construction Activities (VAR10). DEQ is responsible for the issuance, denial, revocation, termination and enforcement of the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Construction Activities related to municipal separate storm sewer systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program.

The owner or operator of projects involving land-disturbing activities of equal to or greater than 1 acre is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific Stormwater Pollution Prevention Plan. Construction activities requiring registration also include land disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan of development will collectively disturb equal to or greater than one acre The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the *VSMP Permit Regulations*.
[Reference: Virginia Stormwater Management Act 62.1-44.15 et seq.; VSMP Permit Regulations 9VAC25-880 *et seq.]*

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482 FAX (804) 698-4178
www.deq.virginia.gov

Travis A. VoylesMichael S. Rolband, PE, PWD, PWS Emeritus
Acting Secretary of Natural and Historic ResourcesDirector
(804) 698-4020

MEMORANDUM

TO: John Fisher, DEQ Environmental Impact Review Coordinator

FROM: Daniel Moore, DEQ Principal Environmental Planner

DATE: May 2, 2022

SUBJECT: DEQ #22-060F: US Army – Security Upgrades, Arlington National Cemetery, Arlington County, Virginia

We have reviewed the Federal Consistency Determination for the above-referenced project and offer the following comments regarding consistency with the provisions of the *Chesapeake Bay Preservation Area Designation and Management Regulations* (Regulations):

In Arlington County, the areas protected by the *Chesapeake Bay Preservation Act*, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by each locality. RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores. RPAs also include a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. All areas of the County not included in the RPA are designated as RMAs.

The proposed project involves the installation of specific security enhancements in order to upgrade ANC to required antiterrorism and force protection (AT/FP) standards. Proposed fence and boundary wall improvements include the following:

- Ord & Weitzel Drive gate upgrades
- Sections 52 & 53 fence upgrades
- Sections 68 & 69 fencing upgrades
- Sections 70 & 71 fencing installation
- Flexible Operation Center (within the existing Welcome Center)
- Visitors Parking Garage fence update

While lands analogous to RPA are not present on site, Arlington County's jurisdiction-wide RMA means that lands analogous to RMAs are present within the proposed project area.

Pursuant to the *Coastal Zone Management Act of 1972*, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be conducted in a manner "consistent to the maximum extent practicable" and be consistent with Virginia's Coastal Zone Management Program (CZM Program) (see § 307(c)(1) of the Coastal Zone Management Act and 15 CFR Part 930, sub-part C of the *Federal Consistency Regulations*).

While Chesapeake Bay Preservation Areas (CBPA) are not locally designated on federal lands, this does not relieve federal agencies of their responsibility to be consistent with the provisions of the Regulations, § 9 VAC 25-830-10 et seq., as one of the enforceable programs of the CZM Program. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated CBPAs. Projects that include land disturbing activity must adhere to the general performance criteria, especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation and minimizing impervious cover. For land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992. Additionally, stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations* shall be satisfied.

The 1998 *Federal Agencies' Chesapeake Ecosystem Unified Plan* (Plan) calls for the signatories of that Plan to cooperate with local and state governments in carrying out actions to comply with stormwater management regulations. The Plan further encourages low impact development practices that minimize the loss of natural areas and reduce impervious surfaces on federal facilities, as well as other best management practices to address stormwater management, and sediment and erosion control. In addition, the *Chesapeake 2000* agreement committed the government agencies to sound land use and stormwater quality controls. The signatories additionally committed the agencies to lead by example with respect to controlling nutrient, sediment and chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued *Directive No. 01-1: Managing Storm Water on State, Federal and District-owned Lands and Facilities*, which includes specific commitments for agencies to lead by example with respect to stormwater control.

Provided adherence to the above requirements, the proposed activity would be consistent with the *Chesapeake Bay Preservation Act* and the Regulations.

COMMONWEALTH of VIRGINIA

Department of Historic Resources

Travis A. Voyles
Acting Secretary of Natural and Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director
Tel: (804) 482-6446
Fax: (804) 367-2391
www.dhr.virginia.gov

MEMORANDUM

DATE: 9 May 2022

DHR File # 2022-3867
DEQ Project # 22-060F

TO: Ms Caitlin E. Smith
ANC

FROM: Marc E. Holma, Architectural Historian (804) 482-6090
Review and Compliance Division

PROJECT: Security Upgrades, Arlington National Cemetery
Arlington County

__X__ This project will have an effect on historic resources. Based on the information provided, the effect will not be adverse.

____ This project will have an adverse effect on historic properties. Further consultation with DHR is needed under Section 106 of the NHPA.

___ Additional information is needed before we will be able to determine the effect of the project on historic resources. **Please see below.**

____ No further identification efforts are warranted. No historic properties will be affected by the project. Should unidentified historic properties be discovered during implementation of the project, please notify DHR.

____ We have previously reviewed this project. Attached is a copy of our correspondence.

___ Other (Please see comments below)

COMMENTS: **C: Mr. John Fisher, DEQ**

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033

Eastern Region Office
2801 Kensington Avenue
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

ESSLog# 42096_22-060F_Arlington National Cemetery Security Upgrade_DWR_HLB20220517

1 message

Brann, LEE <lee.brann@dwr.virginia.gov> Tue, May 17, 2022 at 3:06 PM
To: John Fisher <john.fisher@deq.virginia.gov>
Cc: Tamara Doucette <tamara.doucette@dwr.virginia.gov>, "Martin, Amy" <amy.martin@dwr.virginia.gov>

Mr. Fisher,

We have reviewed the project that proposes to perform security upgrades to features at Arlington National Cemetery. Based on the scope and location of the proposed work, we do not anticipate it to result in significant adverse impacts upon listed species or designated resources under our jurisdiction.

However, to minimize overall impacts to wildlife and our natural resources, we offer the following comments about development activities: we recommend that the applicant avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable. Avoidance and minimization of impact may include relocating stream channels as opposed to filling or channelizing as well as using, and incorporating into the development plan, a natural stream channel design and forested riparian buffers. We recommend maintaining undisturbed naturally vegetated buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams. We recommend maintaining wooded lots to the fullest extent possible. We generally do not support proposals to mitigate wetland impacts through the construction of stormwater management ponds, nor do we support the creation of in-stream stormwater management ponds.

We recommend that the stormwater controls for this project be designed to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of Low Impact Development (LID). They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes.

We recommend that all tree removal and ground clearing adhere to a time of year restriction (TOYR) protective of resident and migratory songbird nesting from March 15 through August 15 of any year.

We recommend adherence to erosion and sediment controls during ground disturbance. To minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting, we recommend use of matting made from natural/organic materials such as coir fiber, jute, and/or burlap.

Assuming strict adherence to best management practices for erosion and sediment control is maintained, we find this project to be consistent with the Wildlife and Inland Fisheries and Commonwealth Lands Enforceable Policies of the Coastal Zone Management Program.

Thank you,

--

VIRGINIA DWR

Lee Brann
Environmental Services Biologist
Wildlife Information and Environmental Services
he/him/his
P 804.367.1295
Department of Wildlife Resources
CONSERVE. CONNECT. PROTECT.
A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228
www.VirginiaWildlife.gov

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

Re: NEW PROJECT Army Arlington National Cemetery Security Upgrades, DEQ 22-060F

1 message

Warren, Arlene <arlene.warren@vdh.virginia.gov> Thu, Apr 28, 2022 at 8:26 AM
To: John Fisher <john.fisher@deq.virginia.gov>
Cc: rr Environmental Impact Review <eir@deq.virginia.gov>

Project Name: Arlington National Cemetery Security Upgrades
Project #: 22-060 F
UPC #: N/A
Location: Arlington County

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.**

There are no public groundwater wells within a 1-mile radius of the project site.

There are no surface water intakes located within a 5-mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

There are no apparent impacts to public drinking water sources due to this project.

The Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

Best Regards,

Arlene F. Warren
GIS Program Support Technician
Virginia Department of Health, Office of Drinking Water
109 Governor Street, 6th Floor
Richmond, VA 23219
804-356-6658 (office/cell/text)

COMMONWEALTH of VIRGINIA

Marine Resources Commission
380 Fenwick Road
Bldg 96
Fort Monroe, VA 23651-1064

Justin D. Worrell
Acting Commissioner

May 17, 2022

Department of Environmental Quality
Attn: John Fisher
1111 East Main Street
Richmond, VA 23219

Re: Arlington National Cemetery Security Upgrades, DEQ #22-060F

Dear Mr. Fisher,

This will respond to the request for comments regarding the Federal Consistency Determination for the Arlington National Cemetery Security Upgrades project (DEQ #22-060F), prepared by the U.S. Army. Specifically, the U.S. Army has proposed a memorandum of agreement with Joint Base Myer – Henderson Hall for security screening services, the installation and retrofit of a room in the Welcome Center as a flexible operations center, upgrades to fence and boundary walls, and interior bollard and barrier upgrades. The project is located in Arlington County, Virginia.

We reviewed the provided documents and found the proposed project is outside the jurisdictional areas of the Virginia Marine Resources Commission (VMRC) and will not require a permit from this agency.

Please be advised that the VMRC pursuant to Chapters 12, 13, and 14 of Title 28.2 of the Code of Virginia administers permits required for submerged lands, tidal wetlands, and beaches and dunes. The VMRC administers the enforceable policies of fisheries management, subaqueous lands, tidal wetlands, and coastal primary sand dunes and beaches, which comprise some of Virginia's Coastal Zone Management Program. VMRC staff has reviewed the submittal and offers the following comments:

Fisheries and Shellfish: None in close proximity to the project area.

Submerged Lands: None in close proximity to the project area.

Tidal Wetlands: None in close proximity to the project area.

Beaches and Coastal Primary Sand Dunes: None in close proximity to the project area.

As such, this project has no foreseeable impact on the VMRC's enforceable policies. As proposed, we have no objection to the consistency findings provided by the applicant. Should the proposed project change, a new review by this agency may be required relative to these jurisdictional areas.

An Agency of the Natural Resources Secretariat
www.mrc.virginia.gov
Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

Department of Environmental Quality
May 17, 2022
Page Two

Please contact me at (757) 247-8028 or by email at mark.eversole@mrc.virginia.gov if you have questions. Thank you for the opportunity to comment.

Sincerely,

Mark Eversole
Environmental Engineer, Habitat Management

ME/cg
HM

Matthew S. Wells
Director

Frank N. Stovall
Deputy Director for Operations

Darryl Glover
Deputy Director for Dam Safety, Floodplain Management and Soil and Water Conservation

Laura Ellis
Interim Deputy Director for Administration and Finance

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: May 20, 2022

TO: John Fisher

FROM: Kristal McKelvey, Environmental Impact Review Coordinator

SUBJECT: DEQ 22-060F Arlington National Cemetery Security Upgrades

Division of Planning and Recreation Resources

The Department of Conservation and Recreation (DCR), Division of Planning and Recreational Resources (PRR), develops the *Virginia Outdoors Plan* and coordinates a broad range of recreational and environmental programs throughout Virginia. These include the Virginia Scenic Rivers program; Trails, Greenways, and Blueways; Virginia State Park Master Planning and State Park Design and Construction. PRR also administers the Land & Water Conservation Fund (LWCF) program in Virginia.

Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

600 East Main Street, 24th Floor | Richmond, Virginia 23219 | 804-786-6124

State Parks • Soil and Water Conservation • Outdoor Recreation Planning
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation

The VDWR maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from http://vafwis.org/fwis/ or contact Amy Martin at (804-367-2211) or amy.martin@dwr.virginia.gov.

Division of State Parks

DCR's Division of State Parks is responsible for acquiring and managing, state parks. Park development and master planning are managed by the Division of Planning and Recreation Resources. Master plans are required prior to a parks opening and are updated every ten years (Virginia Code § 10.1-200 *et seq.*).

Division of Dam Safety and Floodplain Management

Dam Safety Program:
The Dam Safety program was established to provide proper and safe design, construction, operation and maintenance of dams to protect public safety. Authority is bestowed upon the program according to *The Virginia Dam Safety Act*, Article 2, Chapter 6, Title 10.1 (10.1-604 et seq) of the Code of Virginia and Dam Safety Impounding Structure Regulations (Dam Safety Regulations), established and published by the Virginia Soil and Water Conservation Board (VSWCB).

Floodplain Management Program:
The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency (FEMA), and communities who elect to participate in this voluntary program manage and enforce the program on the local level through that community's local floodplain ordinance. Each local floodplain ordinance must comply with the minimum standards of the NFIP, outlined in 44 CFR 60.3; however, local communities may adopt more restrictive requirements in their local floodplain ordinance, such as regulating the 0.2% annual chance flood zone (Shaded X Zone).

All development within a Special Flood Hazard Area (SFHA), as shown on the locality's Flood Insurance Rate Map (FIRM), must be permitted and comply with the requirements of the local floodplain ordinance.

State Agency Projects Only
Executive Order 45, signed by Governor Northam and effective on November 15, 2019, establishes mandatory standards for development of state-owned properties in Flood-Prone Areas, which include Special Flood Hazard Areas, Shaded X Zones, and the Sea Level Rise Inundation Area. These standards shall apply to all state agencies.

1. Development in Special Flood Hazard Areas and Shaded X Zones
    A. All development, including buildings, on state-owned property shall comply with the locally-adopted floodplain management ordinance of the community in which the state-owned property is located and any flood-related standards identified in the Virginia Uniform Statewide Building Code.
    B. If any state-owned property is located in a community that does not participate in the NFIP, all development, including buildings, on such state-owned property shall comply with the NFIP requirements as defined in 44 CFR §§ 60.3, 60.4, and 60.5 and any flood-related standards identified in the Virginia Uniform Statewide Building Code.
        (1) These projects shall be submitted to the Department of General Services (DGS), for review and approval.

(2) DGS shall not approve any project until the State NFIP Coordinator has reviewed and approved the application for NFIP compliance.
(3) DGS shall provide a written determination on project requests to the applicant and the State NFIP Coordinator. The State NFIP Coordinator shall maintain all documentation associated with the project in perpetuity.

C. No new state-owned buildings, or buildings constructed on state-owned property, shall be constructed, reconstructed, purchased, or acquired by the Commonwealth within a Special Flood Hazard Area or Shaded X Zone in any community unless a variance is granted by the Director of DGS, as outlined in this Order.

The following definitions are from Executive Order 45:

Development for NFIP purposes is defined in 44 CFR § 59.1 as "Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

The Special Flood Hazard Area may also be referred to as the 1% annual chance floodplain or the 100-year floodplain, as identified on the effective Flood Insurance Rate Map and Flood Insurance Study. This includes the following flood zones: A, AO, AH, AE, A99, AR, AR/AE, AR/AO, AR/AH, AR/A, VO, VE, or V.

The Shaded X Zone may also be referred to as the 0.2% annual chance floodplain or the 500-year floodplain, as identified on the effective Flood Insurance Rate Map and Flood Insurance Study.

The Sea Level Rise Inundation Area referenced in this Order shall be mapped based on the National Oceanic and Atmospheric Administration Intermediate-High scenario curve for 2100, last updated in 2017, and is intended to denote the maximum inland boundary of anticipated sea level rise.

"State agency" shall mean all entities in the executive branch, including agencies, offices, authorities, commissions, departments, and all institutions of higher education.

"Reconstructed" means a building that has been substantially damaged or substantially improved, as defined by the NFIP and the Virginia Uniform Statewide Building Code.

Federal Agency Projects Only

Projects conducted by federal agencies within the SFHA must comply with federal Executive Order 11988: Floodplain Management.

DCR's Floodplain Management Program does not have regulatory authority for projects in the SFHA. The applicant/developer must reach out to the local floodplain administrator for an official floodplain determination and comply with the community's local floodplain ordinance, including receiving a local permit. Failure to comply with the local floodplain ordinance could result in enforcement action from the locality. For state projects, DCR recommends that compliance documentation be provided prior to the project being funded. For federal projects, the applicant/developer is encouraged reach out to the local floodplain administrator and comply with the community's local floodplain ordinance.

To find flood zone information, use the Virginia Flood Risk Information System (VFRIS):
www.dcr.virginia.gov/vfris

To find community NFIP participation and local floodplain administrator contact information, use DCR's Local Floodplain Management Directory: www.dcr.virginia.gov/dam-safety-and-floodplains/floodplain-directory

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: John Fisher

We thank **OEIR** for providing DEQ-AIR an opportunity to review the following project: Accordingly, I am providing following comments for consideration.

Document Type: Environmental Assessment/Federal Consistency Determination
Project Sponsor: USDOD/U.S. Army
Project Title: Arlington National Cemetery Security Upgrades
Location: Arlington County
Project Number: DEQ #22-060F

PROJECT LOCATION: **X OZONE NON ATTAINMENT AND EMISSION CONTROL AREA FOR NOX & VOC**

REGULATORY REQUIREMENTSMAY BE APPLICABLE TO: **X CONSTRUCTION** ☐ OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

1. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E – STAGE I
2. ☐ 9 VAC 5-45-760 et seq. – Asphalt Paving operations
3. **X** **9 VAC 5-130 et seq. – Open Burning**
4. **X** **9 VAC 5-50-60 et seq. Fugitive Dust Emissions**
5. ☐ 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to_____
6. ☐ 9 VAC 5-60-300 et seq. – Standards of Performance for Toxic Pollutants
7. ☐ 9 VAC 5-50-400 Subpart____, Standards of Performance for New Stationary Sources, designates standards of performance for the_____
8. ☐ 9 VAC 5-80-1100 et seq. of the regulations – Permits for Stationary Sources
9. ☐ 9 VAC 5-80-1605 et seq. Of the regulations – Major or Modified Sources located in PSD areas. This rule may be applicable to the _____
10. ☐ 9 VAC 5-80-2000 et seq. of the regulations – New and modified sources located in non-attainment areas
11. ☐ 9 VAC 5-80-800 et seq. Of the regulations – State Operating Permits. This rule may be applicable to _____

COMMENTS SPECIFIC TO THE PROJECT:

All precautions are necessary to restrict the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x).

K. S. Narasimhan

(Kotur S. Narasimhan)
Office of Air Data Analysis **DATE: April 29, 2022**

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMORANDUM

TO: John Fisher, DEQ/EIR Environmental Program Planner

FROM: Carlos A. Martinez, Division of Land Protection & Revitalization Review Coordinator

DATE: May 12, 2022

COPIES: Sanjay Thirunagari, Division of Land Protection & Revitalization Review Manager; file

SUBJECT: Environmental Impact Review: 22-060F Arlington National Cemetery Security Upgrades in Arlington County, Virginia.

The Division of Land Protection & Revitalization (DLPR) has completed its review of the USDOD/U.S. Army's April 26, 2022 EIR for Arlington National Cemetery Security Upgrades in Arlington County, Virginia.

DLPR staff conducted a search (200 ft. radius) of the project area of solid and hazardous waste databases (including petroleum releases) to identify waste sites in close proximity to the project area. DLPR identified one (1) RCRA Small Quantity Generator and ten (10) petroleum release sites within the project area which might impact the project.

DLPR staff has reviewed the submittal and offers the following comments:

Hazardous Waste/RCRA Facilities *One (1) RCRA Small Quantity Generator in close proximity to the project area*

1. *RegistryID: 110006883435, Arlington National Cemetery, State Hwy 110 & Memorial Dr, Arlington, Virginia 22211.*

CERCLA Sites *– none in close proximity to the project area*

Formerly Used Defense Sites (FUDS) *– none in close proximity to the project area.*

Solid Waste *– none in close proximity to the project area*

***Virginia Remediation Program (VRP)** – none in close proximity to the project area*

***Petroleum Releases** – Four (4) found in close proximity to the project area.*

2. ***PC Number 20163207, Joint Base Myer-Henderson Hall 105 Fenton Cir, Washington Blvd and Arlington Blvd, Arlington, Virginia, Release Date: 05/10/2016, Status: Closed.***

3. ***PC Number 19930065, Fort Myer – Building 305 – Tank 24, Washington Blvd and Arlington Blvd, Arlington, Virginia, Release Date: 07/07/1992, Status: Closed.***

4. ***PC Number 19930673, Fort Myer Building 305 Tank 24, Washington Blvd and Arlington Blvd, Arlington, Virginia, Release Date: 09/29/1992, Status: Closed.***

5. ***PC Number 19920578, Fort Myer – Building 323 – Tank 30, Washington Blvd and Arlington Blvd, Arlington, Virginia, Release Date: 09/26/1991, Status: Closed.***

6. ***PC Number 19940580, Arlington National Cemetery – Building 107, Various Buildings, Arlington, Virginia, Release Date: 10/04/1993, Status: Closed.***

7. ***PC Number 19921775, Arlington National Cemetery – Building 103, Various Buildings, Arlington, Virginia, Release Date: 03/09/1992, Status: Closed.***

8. ***PC Number 19900437, Arlington National Cemetery Building 102, Various Buildings, Arlington, Virginia, Release Date: 10/09/1989, Status: Closed.***

9. ***PC Number 19940579, Arlington National Cemetery – Building 113, Various Buildings, Arlington, Virginia, Release Date: 10/04/1993, Status: Closed.***

10. ***PC Number 20073119, Arlington National Cemetery Columbarium Site, Various Buildings, Arlington, Virginia, Release Date: 12/04/2006, Status: Closed.***

Please note that the DEQ's Pollution Complaint (PC) cases identified should be further evaluated by the project engineer or manager to establish the exact location, nature and extent of the petroleum release and the potential to impact the proposed project. In addition, the project engineer or manager should contact the DEQ's Northern Regional Office at (703) 583-3800 (Tanks Program) for further information about the PC cases.

PROJECT SPECIFIC COMMENTS

None

GENERAL COMMENTS

Soil, Sediment, Groundwater, and Waste Management

Any soil, sediment or groundwater that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-81); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous Materials, 49 CFR Part 107.

Asbestos and/or Lead-based Paint

All structures being demolished/renovated/removed should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP) prior to demolition. If ACM or LBP are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-81-620 for ACM and 9VAC 20-60-261 for LBP must be followed. Questions may be directed to Richard Doucette at the DEQ's Northern Regional Office at (703) 583-3800.

Pollution Prevention – Reuse - Recycling

Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Carlos A. Martinez by phone at (804) 350-9962 or email Carlos.Martinez@DEQ.Virginia.Gov.

From:	Rosenquist, Stacey M CIV USARMY HQDA ANC OSA (USA)
To:	BETTINA.RAYFIELD@DEQ.VIRGINIA.GOV
Cc:	TOMPKINS-FLAGG, Nicole Marie (Nik) CIV USN NAVFAC WASHINGTON DC (USA); Smith, Caitlin E CIV USARMY HQDA ANC OSA (USA); Sullivan, Agnes K CIV USARMY HQDA ANC OSA (USA)
Subject:	Federal Coastal Consistency Determination - Arlington National Cemetery
Date:	Wednesday, April 20, 2022 4:18:37 PM
Attachments:	ANC Security Upgrades Final CCD APR2022 signed.pdf
Importance:	High

Dear Ms. Rayfield:

The United States Army proposes to upgrade security measures to meet antiterrorism and force protection (AT/FP) standards for federal facilities at Arlington National Cemetery (ANC). Physical and operational security upgrades have been identified to address deficiencies and improve the overall AT/FP posture of ANC. These include a memorandum of agreement for security screening services, establishing an on-site emergency operations center, upgrading perimeter fencing, and upgrading interior bollards and barriers. The Army is evaluating these projects through an Environmental Assessment per the National Environmental Policy Act. As part of this process, the Army is also conducting a consultation with the Virginia Department of Historic Resources and interested parties in accordance with Section 106 of the National Historic Preservation Act.

The enclosed Federal Coastal Consistency Determination and associated figures are being submitted in accordance with Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972 as amended. The Army has determined that the proposed federal agency action is not reasonably likely to affect a land use, water use, or natural resources of the Commonwealth of Virginia's coastal zone. Nonetheless, the Army will conduct the proposed activity at ANC in a manner that will be consistent, to the maximum extent practicable, with the applicable enforceable policies of the Virginia Coastal Zone Management Program.

Please contact me with any questions or concerns.

Sincerely,

Stacey M. Rosenquist
Environmental Compliance Program Manager
Arlington National Cemetery
703-614-0520 (o)
703-963-9465 (c)

Coastal Consistency Determination

ARLINGTON NATIONAL CEMETERY

SECURITY UPGRADES

APRIL 2022

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Coastal Consistency Determination
ARLINGTON NATIONAL CEMETERY SECURITY UPGRADES

Introduction

This document provides the Commonwealth of Virginia with the U.S. Department of the Army's Consistency Determination under Section 307(c)(1) of the federal Coastal Zone Management Act (CZMA) of 1972, as amended, and Title 15 Code of Federal Regulations (CFR) Part 930, Subpart C, for the Army's proposed security upgrades at Arlington National Cemetery (ANC).

The CZMA, codified in 16 United States Code Section 1451 et seq. and administered by the Secretary of Commerce through the Office of Coastal Resources Management of the National Oceanic and Atmospheric Administration (NOAA), established a comprehensive regulatory scheme for effective management, beneficial use, protection, and development of the coastal zone and its natural resources. The CZMA encourages coastal states to develop, obtain federal approval for, and implement a broad-based coastal management program and provides a mechanism for them to do so.

Pursuant to the CZMA, NOAA approved the Virginia Coastal Zone Management (CZM) Program in 1986. Accordingly, federal activities that are reasonably likely to affect any land or water use, or natural resources of Virginia's designated coastal resources management area must be consistent with the enforceable policies of the CZM Program.

ANC is located within Arlington County. Arlington County is part of Virginia's designated Coastal Management Area. ANC, as federal land, is statutorily excluded from Virginia's coastal zone. The exclusion of federal lands does not remove federal agencies from the obligation of complying with the consistency provisions of Section 307 of the CZMA when federal actions on these excluded lands have spillover impacts that affect any land or water use or natural resource of the coastal zone.

Installation Background

ANC serves as the most hallowed burial ground of our Nation's fallen; to date, over 400,000 have been laid to rest there. ANC is an active military cemetery, with an average of 150 veterans or family members interred each week. ANC memorializes history, as it is the final resting place for the military heroes and patriots who built, preserved, and protected our Nation, from the Revolutionary War to the wars in Afghanistan and Iraq. Over 3 million people visit ANC each year. The graves, memorials, and landscape provide an important sense of peace and beauty for visitors.

ANC's 639 acres are located west of Washington, D.C., in Arlington, Virginia. The cemetery lies at the west end of Memorial Avenue, directly across the Arlington Memorial Bridge from the Lincoln Memorial (Figure 1). (See Enclosure 2 for all figures.) ANC is under the jurisdiction of the Department of the Army.

Proposed Action

ANC proposes to upgrade security to meet antiterrorism and force protection (AT/FP) standards for federal facilities. ANC's current security does not meet AT/FP (hereafter referred to as "security") standards for federal facilities. Physical and operational security upgrades (i.e., the Proposed Action) have been identified to address deficiencies and improve the overall security posture of ANC.

Internal and external assessments of security at ANC identified deficiencies in meeting established security criteria of the Department of Defense, Army, and Unified Facilities Criteria. Based on the assessments, ANC identified various projects to address these deficiencies and improve the overall security posture. The federal agency activity (e.g., Proposed Action) for this Consistency Determination comprises a subset of these projects.

The Army is evaluating these projects through an Environmental Assessment (EA) per the National Environmental Policy Act. As part of this process, the Army is also conducting a consultation with the Virginia Department of Historic Resources and interested parties in accordance with Section 106 of the National Historic Preservation Act. These documents and consultations will be made available to the public at https://www.arlingtoncemetery.mil/About/Policies-and-Public-Notices/Public-Notices.

The Proposed Action projects include a memorandum of agreement with Joint Base Myer – Henderson Hall (JBM-HH) for security screening services, retrofit of a room in the Welcome Center as a flexible operations center, fence and boundary wall upgrades, and interior bollard and barrier upgrades. These projects are summarized below. Figure 2 shows the locations of these projects.

Memorandum of Agreement with Joint Base Myer – Henderson Hall for Security Screening Services

A memorandum of agreement with JBM-HH would be developed to provide vehicle screening services for commercial delivery and service vehicles. The memorandum would also clarify emergency operations center (EOC) functions for ANC grounds. At present, ANC only accepts vetted commercial drivers on ANC. This agreement would allow for nonvetted drivers and vehicles to proceed through JBM-HH to be screened for admittance to ANC.

Flexible Operations Center in Welcome Center

This project would retrofit a room in the ANC Welcome Center (Figure 3) as a flexible operations center, which would function as an EOC. Currently, emergency operations are handled at a dedicated EOC at JBM-HH. ANC needs its own EOC in case the EOC at JBM-HH is compromised or unable to provide coverage for the cemetery.

Fence and Boundary Wall Upgrades

This project would upgrade ANC boundary fencing and walls to meet security standards at the Ord & Weitzel Drive Gate, at Sections 52 and 53, along Memorial Avenue, at the Visitor Parking Garage area, and at Sections 69 through 76.

Ord & Weitzel Drive Gate – The Ord & Weitzel Drive Gate (Figure 4) does not comply with security standards. This nonhistoric gate features a hinged 4-foot-tall pedestrian gate, two 7-foot-tall (total height) red sandstone gate piers, and an automated sliding vehicle entry gate that is 5 feet, 6 inches tall. This gate would be upgraded to comply with security standards. This would be accomplished by replacing the steel pedestrian and vehicle gates with new 8-foot-tall gates and increasing the height of the existing sandstone gate piers to 10 feet tall. The existing gate pier capstones would be removed, and 3 feet of new matching red sandstone would be added. The original capstones would then be reinstalled, bringing the total height of the gate piers to 10 feet tall.

Section 52 and 53 Wall – Sections 52 and 53 are bounded by an approximately 4-foot-tall masonry wall (Figure 5) that is approximately 1,300 feet long. It does not conform to security standards as it is too low. The EA is evaluating three alternatives for the upgrades to the wall at Sections 52 and 53, described below. During the preparation of this CCD, the Army implemented Alternative 2 for upgrades to the fence and boundary wall at Sections 52 and 53 due to security needs. The Army considered both Alternatives 1 and 2 for these upgrades and selected Alternative 2.

- Under Alternative 1, an 8-foot-tall, post-and-picket, steel security fence would be placed in front of the existing masonry wall with enough distance from the masonry wall to allow for vegetation maintenance and debris removal.
- Under Alternative 2, a steel post-and-picket "topper" would be installed directly on top of the masonry wall that would bring the total height to 8 feet.
- Under Alternative 3, an 8-foot-tall, post-and-picket, steel security fence would be placed in front of the existing masonry wall as close as possible to the masonry wall (almost flush with the wall).

Memorial Avenue Fence – Memorial Avenue is bounded by 6-foot-tall chain-link fences to the north and south. These fences are located behind large, maintained hedges (Figure 6 and Figure 7). The fence on the north side of Memorial Avenue is approximately 770 feet long. The fence on the south side of Memorial Avenue is approximately 1,000 feet long in total (combined length of three segments). The fences do not conform to security standards as they are too low and do not have an anti-climb design. These fences would be upgraded to an 8-foot-tall, post-and-picket, steel security fence or an 8-foot-tall, anti-climb design, chain-link fence.

Visitor Parking Garage Fence – The Visitor Parking Garage area is bounded by a 6-foot-tall chain-link fence (Figure 8). This section of fencing is approximately 1,220 feet long and does not conform to security standards as it is too low and does not have an anti-climb design. The fence would be upgraded to an 8-foot-tall, post-and-picket, steel security fence.

Section 69 and 70 Wall – Sections 69 and 70 feature a steel picket-and-post fence constructed on top of a masonry wall (Figure 9). The fence-and-wall combination barrier varies in height, depending on location and reaches 6 feet tall at its southern end (the Service Complex) and northern end (Section 70). This section is approximately 1,760 feet long. This fence-and-wall

barrier does not conform to security standards as it is too low. The post-and-picket topper piece of the fence would be upgraded so that the minimum total height is 8 feet tall along the entire length.

Section 70/71 through 76 Fence – Sections 70/71 through 76 are bounded by the Niche Wall (Figure 10). This 6-foot-tall structure contains 6,573 compartments for cremated remains in a gray fieldstone wall. The Niche Wall is approximately 2,390 feet long and does not conform to security standards as it is too low and was not designed as a security feature. An 8-foot-tall, post-and-picket, steel security fence would be installed on the outside of the Niche Wall along its entire length. The fence would tie into Gate 110 and the Section 69 and 70 fence.

Bollard and Barrier Upgrade

Bollards and barriers are used internally at ANC to deter civilian vehicle traffic from entering certain areas. At present, ANC has two types of bollards in use (17 bollards at 11 locations). These bollards use different keys/locking mechanisms and are not interchangeable. The bollards are aging and in varying states of disrepair. Due to their age and condition, some are not able to be removed as designed.

This project would replace all bollards at ANC with one design that is removable and interchangeable. Upon completion, there would be 71 removable bollards at 35 locations. These locations have been selected by ANC security staff to provide the necessary security and flexibility for ANC operations and functions. Bollards would be emplaced and removed as needed. They would be designed to blend into the overall landscape of ANC while still being visible to drivers. Figure 11 shows an example of an existing bollard at ANC.

This project would also install 20 concrete planter barriers at the tram loading area and Columbarium and one mobile concrete bollard at the Welcome Center entrance on Memorial Avenue. (Existing bollards are too spread out to prevent a vehicle from entering.) Pedestrians gather in these areas, which are exposed to vehicles. The planter barriers would match existing concrete features (e.g., match color and texture of existing concrete structures), and the bollard would would be consistent with the overall landscape of ANC. Figure 12 shows an example of a concrete planter barrier, and Figure 13 shows the existing concrete bollards at the Welcome Center.

Effects Determination

The Army has analyzed the Proposed Action for spillover effects to Virginia coastal uses and resources. The Proposed Action would require the use of fossil-fuel powered construction vehicles and mobile construction equipment that produce air emissions. These emissions would have the potential to spill over from ANC to Virginia's coastal zone. Temporary, negligible impacts to Virginia coastal zone air quality would result from the use of construction vehicles and mobile construction equipment and from fugitive dust. These local, short-term impacts would be well below Clean Air Act General Conformity *de minimis* values. The use of best management practices during construction would minimize impacts from fugitive dust.

As detailed above, the Army has determined that the Proposed Action would have spillover effects to air resources of Virginia's Coastal Zone. All other effects would be confined to ANC. Therefore, the Army has prepared this Consistency Determination rather than a negative determination. Based on the following information, data, and analysis, the Army finds that the Proposed Action is

consistent to the maximum extent practicable with the enforceable policies of the Virginia CZM Program.

Analysis of Enforceable Policies

The 12 enforceable policies of the Virginia CZM Program are (I) Tidal and Non-Tidal Wetlands, (II) Subaqueous Lands, (III) Dunes and Beaches, (IV) Chesapeake Bay Preservation Areas, (V) Marine Fisheries, (VI) Wildlife and Inland Fisheries, (VII) Plant Pests and Noxious Weeds, (VIII) Commonwealth Lands, (IX) Point Source Air Pollution, (X) Point Source Water Pollution, (XI) Nonpoint Source Water Pollution, and (XII) Shoreline Sanitation. Analysis for each of these policies is provided in the following table.

ANC Security Upgrades
CZMA Consistency Determination

April 2022

Enforceable Policy	Brief Description of Enforceable Policy	Consistency Analysis
I. Tidal and Non-Tidal Wetlands	This enforceable policy pertains to the preservation and protection of tidal and non-tidal wetlands as well as streams.	This policy is not applicable to the Proposed Action. There are no tidal or non-tidal wetlands (including streams) at any of the Proposed Action project areas.
II. Subaqueous Lands	This enforceable policy pertains to the use of commonwealth-owned subaqueous lands.	This policy is not applicable to the Proposed Action. There are no state-owned subaqueous lands at any of the Proposed Action project areas.
III. Dunes and Beaches	This policy pertains to the preservation and protection of coastal primary sand dunes and beaches.	This policy is not applicable to the Proposed Action. There are no dunes or beaches at any of the Proposed Action project areas.
IV. Chesapeake Bay Preservation Areas	This policy pertains to the protection and improvement of the Chesapeake Bay, its tributaries, and other state waters by minimizing the effect of human activity on these waters. To that end, the Commonwealth will ensure that land use and development performance criteria and standards are implemented in Chesapeake Bay Preservation Areas, which if improperly used or developed may result in substantial damage to the water quality of the Chesapeake Bay and its tributaries.	Chesapeake Bay Preservation Areas have not been designated on ANC by Arlington County. The Proposed Action would not result in development of any Chesapeake Bay Preservation Areas designated by Arlington County. The Proposed Action would be consistent to the maximum extent practicable with the Chesapeake Bay Preservation Areas policy of the Virginia CZM Program.
V. Marine Fisheries	This policy pertains to the conservation and promotion of the seafood and marine resources of the commonwealth, including fish, shellfish and marine organisms, and management of the fisheries to maximize food production and recreational opportunities within the commonwealth's territorial waters.	This policy is not applicable to the Proposed Action. The Proposed Action would occur entirely on land and would have no interaction with marine fisheries.
VI. Wildlife and Inland Fisheries	This policy pertains to the conservation and protection of fish and wildlife, including threatened and endangered species, as well as the prohibition on the release of predatory, undesirable, or aquatic nuisance species. This policy also prohibits drugging vertebrate wildlife unless it is done in a manner that is not harmful.	The Proposed Action would occur entirely in previously developed areas. No natural habitat would be disturbed. No threatened or endangered species occur in Proposed Action areas. The Proposed Action would not result in the take of any wildlife. The Proposed Action would not release any of predatory, undesirable, or aquatic nuisance species. The Proposed Action would not drug any vertebrate wildlife. The Proposed Action is consistent to the maximum extent practicable with this enforceable policy.

Enclosure 1

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ANC Security Upgrades
CZMA Consistency Determination
April 2022

Enforceable Policy	Brief Description of Enforceable Policy	Consistency Analysis
VII. Plant Pests and Noxious Weeds	This policy pertains to the quarantine, importation, sale, bartering, movement, transportation, etc., of plant pests within the commonwealth.	This policy is not applicable to the Proposed Action. The Proposed Action would not involve or incorporate the importation, sale, bartering, movement, transportation, etc., of plant pests.
VIII. Commonwealth Lands	This policy pertains to lands held by or under the purview of the Department of Game and Inland Fisheries and the Department of Conservation and Recreation.	This policy is not applicable to the Proposed Action. The Proposed Action would occur entirely at ANC. The Proposed Action would not occur on or affect commonwealth lands.
IX. Point Source Air Pollution	This policy pertains to the abatement, control, and prohibition of air pollution, in particular that generated by asphalt paving operations, open burning, fugitive dust, stationary sources, and new regulated stationary sources.	The Proposed Action does not include asphalt paving, open burning, or existing/new stationary sources. Best management practices would be implemented, if necessary, to minimize any fugitive dust generated from ground disturbance associated with the construction associated with the security fence upgrades. Therefore, the Proposed Action is consistent to the maximum extent practicable with this enforceable policy.
X. Point Source Water Pollution	This policy pertains to the protection of and existing high quality and the restoration of all other state waters to such condition of quality that any such waters will permit all reasonable public uses and support the propagation and growth of all aquatic life, including game fish, that might reasonably be expected to inhabit them; safeguard the clean waters of the commonwealth from pollution; prevent any increase in pollution; reduce existing pollution; promote and encourage the reclamation and reuse of wastewater in a manner protective of the environment and public health; and promote water resource conservation, management, and distribution and encourage water consumption reduction in order to provide for the health, safety, and welfare of the present and future citizens of the commonwealth.	The Proposed Action would not result in new point sources of water pollution. Other than the installation of fence footers and bollard posts (approximately 812 square feet total [0.8 square foot per each of 874 fence post footers and 1.8 square feet per each of 71 bollard footers]), there would be no land disturbance under the Proposed Action. Clean Water Act permits would not be required for construction (e.g., VPDES permit for Stormwater Discharges from Construction Activities) or operation (e.g., VPDES permit for Industrial Activities) under the Proposed Action. For footers that may be placed outside of ANC property (on VDOT easement), a Land Disturbing Activity/Stormwater permit would not be required as the Proposed Action would not disturb 2,500 square feet or greater. The Proposed Action would be fully consistent with the coastal lands management policy of the Virginia CZM Program. Therefore, the Proposed Action is consistent to the maximum extent practicable with this enforceable policy.
XI. Nonpoint Source Water Pollution	This policy pertains to the control of stormwater runoff to protect the quality and quantity of state waters from the potential harm of unmanaged stormwater; to control soil	ANC operates a Small Municipal Separate Storm Sewer System under VPDES Permit Number VAR040139, effective November 1, 2018.

Enclosure 1
7

ANC Security Upgrades
CZMA Consistency Determination
April 2022

Enforceable Policy	Brief Description of Enforceable Policy	Consistency Analysis
	erosion and sediment deposition in order to prevent unreasonable degradation of properties, stream channels, state waters, and other natural resources; and to otherwise act to control nonpoint source water pollution to ensure the general health, safety, and welfare of the citizens of the commonwealth.	There would be no meaningful increase in impervious surfaces at ANC as a result of the Proposed Action. New fence post footers would be installed subgrade with grass planted/replaced on top. Therefore, the Proposed Action would be consistent to the maximum extent practicable with this enforceable policy.
XII. Shoreline Sanitation	It is the policy of the Commonwealth for sewage to be disposed of in a safe and sanitary manner that protects the public health and welfare and the environment.	This policy is not applicable to the Proposed Action. The Proposed Action does not involve sewerage or septic systems.

ANC = Arlington National Cemetery; CZM = Coastal Zone Management; VDOT = Virginia Department of Transportation; VPDES = Virginia Pollutant Discharge Elimination System

Enclosure 1 **8**

Conclusion

Based on the foregoing analysis, the Army finds the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the Virginia CZM Program.

Pursuant to 15 CFR Section 930.41, the Virginia Coastal Zone Management Program has 60 days from the receipt of this letter in which to concur with or object to this Consistency Determination, or to request an extension under 15 CFR Section 930.41(b). Virginia's concurrence will be presumed if its response is not received by Arlington National Cemetery on the 60th day from receipt of this determination.

SULLIVAN.AGNES.K.1258782379 Digitally signed by SULLIVAN.AGNES.K.1258782379 Date: 2022.04.20 15:43:52 -04'00'

Agnes Sullivan
Deputy Director of Engineering

Date

The State's response should be sent to:

Stacey Rosenquist
Arlington National Cemetery
1 Memorial Avenue
Arlington, VA 22211

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Figures

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ANC Security Upgrades
CZMA Consistency Determination **April 2022**

Figure 1. Location of Arlington National Cemetery

ANC Security Upgrades
CZMA Consistency Determination **April 2022**

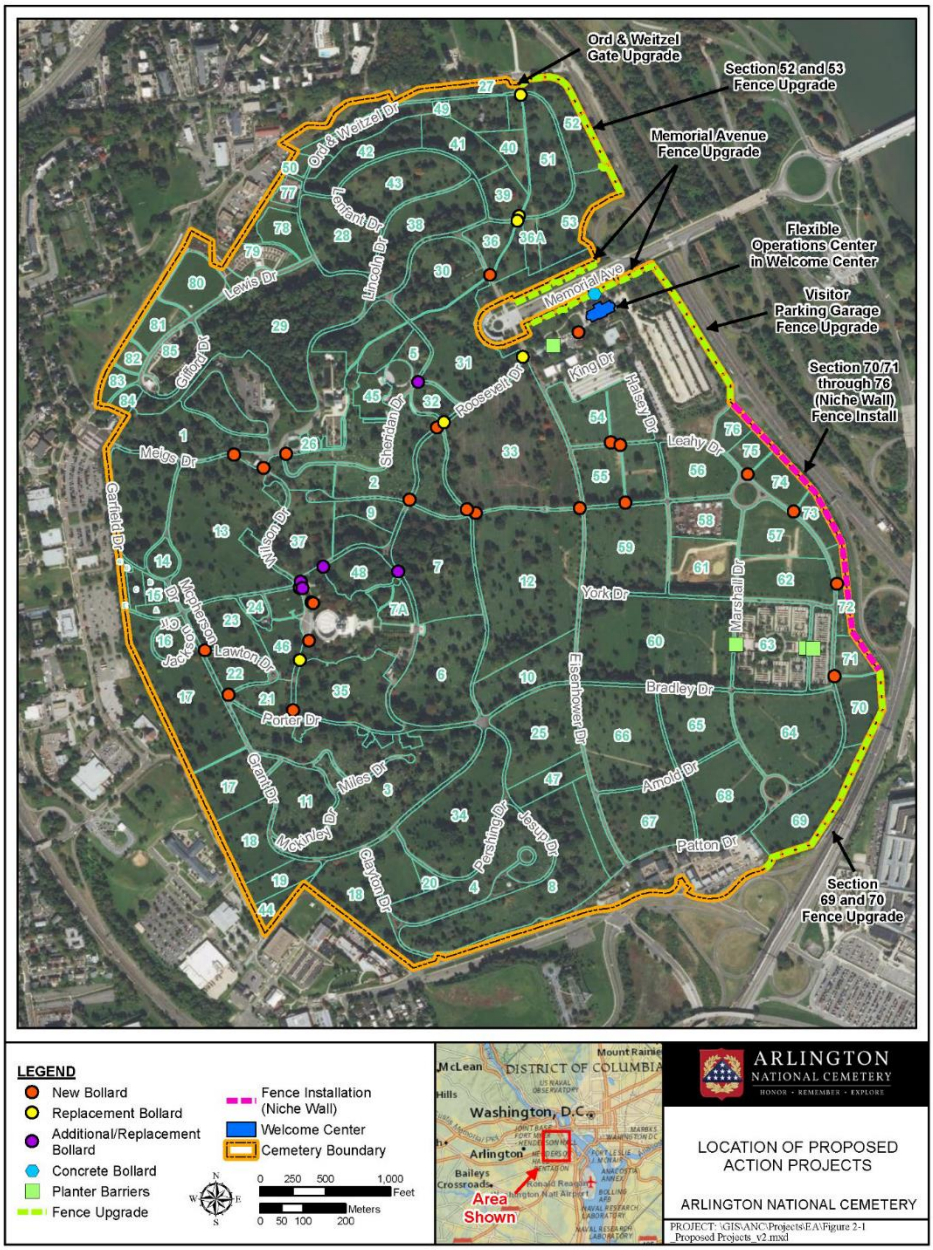

Figure 2. Location of Proposed Action Projects

Figure 3. Arlington National Cemetery Welcome Center

Figure 4. Ord & Weitzel Drive Gate

Figure 5. Section 52 Masonry Wall

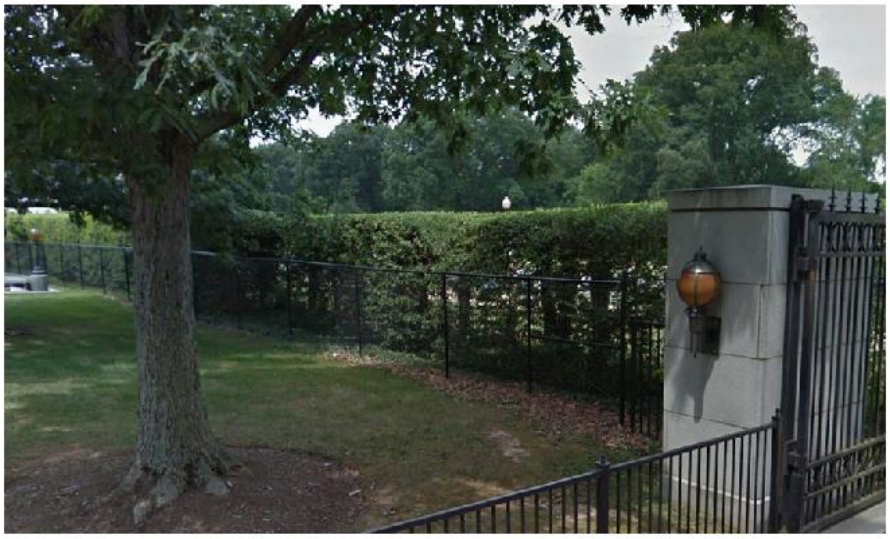

Figure 6. Memorial Avenue Chain-Link Fence

Figure 7. View West on Memorial Avenue – Hedges on North and South Sides Backed by 6-Foot-Tall Chain-Link Fence

Source: Google Earth 2021

Figure 8. Visitor Parking Garage Chain-Link Fence

Figure 9. Section 69 and 70 Boundary Wall/Fence

Figure 10. Niche Wall

Figure 11. Example Existing Bollard

Figure 12. Example Concrete Planter Barrier

Figure 13. Welcome Center Concrete Bollards

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Appendix D
Public Involvement

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NOTICE OF AVAILABILITY

for the Draft Environmental Assessment and Public Open House Meeting for Security Upgrades at **Arlington National Cemetery, Arlington Virginia**

Arlington National Cemetery (ANG), in accordance with the National Environmental Policy Act, has prepared a Draft Environmental Assessment (EA) analyzing proposed upgrades to security. ANG proposes to upgrade security measures to meet antiterrorism and force protection (AT/FP) standards for federal facilities. Physical and operational security upgrades have been identified to address security deficiencies and improve the overall AT/FP posture of ANG. These include a security screening memorandum of agreement with Joint Base Myer - Henderson Hall, establishing an on-site flexible operations center, upgrading perimeter fencing, and upgrading interior bollards and barriers.

The Draft EA summarizes the potential environmental effects of the Proposed Action on cultural resources, water resources, biological resources, air quality, utilities, infrastructure, land use, and the surrounding community.

ANC's Cultural Resource Manager assessed the effects of the proposed undertaking using the criteria of adverse effects (36 Code of Federal Regulations 800.5(a)(1)) and determined the project will have No Adverse Effect on the characteristics which qualify ANG, Arlington Ridge Park National Register District, and the Memorial Amphitheater for listing in the National Register of Historic Places.

An electronic copy of the Draft EA can be obtained at: https://www.arlingtoncemetery.mil/About/Policies-and-Public-Notices/PublicNotices

ANG will host a public meeting to provide information and solicit comments on the Draft EA per NEPA and Section 106 of the National Historic Preservation Act and The Programmatic Agreement with ANG, Virginia State Historic Preservation Officer, and the Advisory Council on Historic Preservation for the Operation, Maintenance, and Repair Activities at ANG.

The meeting will be an open house format with information displays and materials available for public review. There will be no formal presentation. ANG staff will be present to answer general questions on the proposed security upgrades, the Draft EA, and Section 106 of the National Historic Preserv tion Act. You may arrive anytime during the open house.

Tuesday, May 3, 2022
3:00 p.m. - 5:00 p.m.

Arlington National Cemetery
Welcome Center
1 Memorial Avenue
Arlington, VA 22211

Comments may be submitted in writing at the meeting or by email at: NAVFACWASHNEPA 1@NAVY.MIL

Comments will be accepted during the meeting or by email during the 30-day public comment period from April 20 through May 20, 2022.

News

Bunny Hop 5K for Bridges to Independence

Clarendon United Methodist Church will hold its fifth annual Arlington Bunny Hop 5K Run/Walk for Arlington Charities on Saturday, April 23, 2022 at 8 am. The event will start at the Church at 606 N. Irving Street, Arlington, Va. 22201.

For the fifth year, Bridges to Independence, a local leader in housing and support services for families experiencing homelessness, will be the primary beneficiary.

See Bunny Hop 5K, Page 10

Bridges Bash

From Page 5

tee, co-chaired by Bailey Hamilton and Zakiya Worthey."

Heavy hors d'oeuvres and open bar are included in the ticket price. Tickets are available through the Bridges' website. https://bridges2.org/event/bridges-bash/.

About Bridges: Bridges to Independence, founded in 1985 as the Arlington Alexandria Coalition for the Homeless, is a local leader in housing and support services for families and neighbors facing systemic poverty. Its mission is to "lead individuals and families out of homelessness into stable, independent futures." Bridges' operates the largest family homeless shelter in Arlington county, a community services center in Green Valley, a housing program, and workforce development and development programs. Learn more: https://bridges2.org/

Calendar

NOW THRU APRIL 29
Art Unmasked. 10 a.m. to 6 p.m. At Gallery Underground, 2100 Crystal Drive, Arlington. Gallery Underground's Focus Gallery presents Art Unmasked, a group show led by Hernan Murno. Murno joins Lesley Clark, Beverly Ryan, and Marsha Staiger for an exciting mixed media show. Hernan describes the show as "Four artists that approach art making in very different ways, but, at the same time, all fueled by a desire to express themselves with paint, ink, collage, wax and more, on paper, wood, and canvas. In this exhibit, for this short period of time, the viewer will be able to find relationships that transcend the individual styles and themes." Additionally, our Main Gallery features new works by our gallery members, in media including oil, acrylic, pastel, watermedia, sculpture, glass, and ceramics.

NOW THRU MAY 31
Jane Franklin Dance Presents Forty+ Project. 11:45 a.m.-1 p.m. At 3700 S. Four Mile Run Drive, Arlington. Featuring: Choreographer Emily Crews. Enroll: $160. Forty+ Projects explore movement and performance technique within a creative premise. Get invaluable health benefits from exercise including improved strength, physical function. Each project celebrates the collective creativity of people past the age of 40 and each project is directed by a different choreographer. This project culminates with performances at Theatre on the Run in June. Call 703-933-1111.

APRIL 20 AND APRIL 28
Washington-Liberty PINK Games. 5:30-9 p.m. At Washington-Liberty High School, 1301 N. Stafford Street, Arlington. W-L girls' soccer is turning PINK for Doorways. Join the players in supporting survivors of domestic and sexual violence as well as families and youth experiencing homelessness. Give the gift of safe harbor, healing, and hope in honor of the amazing ladies of the W-L Generals! #GeneralsLead. Pink Games will help raise money for Doorways.

SATURDAY/APRIL 23
Earth Day Cleanup. 9 a.m. to noon. At Bon Air Park, 850 N. Lexington Street, Arlington. Celebrate Earth Day. Register for the Earth Day Cleanup to keep our environment healthy. Register at EcoactionArlington.org.

APRIL 23-24
Arlington Festival of the Arts Springtime Showcase. 10 a.m. to 5 p.m. At 3003 Washington Boulevard in Arlington. Over one hundred local and national artists are set to display their original works from across the country in a prestigious show encompassing fine jewelry, exquisite works of art, and hand-crafted apparel and decor. Whether your passions run to sparkling jewels and one-of-a-kind paintings, masterfully crafted glasswork, or an art deco sculpture, you are sure to find it during the free, two-day event. Visit the website: www.artfestival.com

SATURDAY/APRIL 30
George Washington's Forest History Walk. 1:30 p.m. At Ball-Sellers House, 5620 3rd Street, South, Arlington. Walk in the footsteps of George Washington on a guided walk with a local historian. In 1775, George Washington bought 1,200-acres of forest in what is now Arlington. After the Revolutionary War, he returned home and surveyed his property. On the walk you'll see the Ball-Sellers House (the oldest house in the Washington Metro area), the survey markers used by Washington in 1785, historic springs, the site of a mill built by George Washington's step-grandson and more. Visit the website: arlingtonhistoricalsociety.org/events

CONNECTION NEWSPAPERS
LEGAL ADVERTISING

ACCOUNT NAME: **Vincent C. Passaro, QEP/Leido, Environmental Scientist/NEPA Specialist – Notice of Availability for the Draft Environmental Assessment and Public Open House Meeting for Security Upgrades at Arlington National Cemetery, Arlington Virginia**

INVOICE:	**543221**
AD PLACED BY:	**Vincent Passaro**
ORDER DATE:	**April 14, 2022**
SCHEDULED TO RUN:	**April 20, 2022**
HEADER:	**CLASSIFIED: LEGAL**
CLASSIFICATION	**CLASSIFIED: LEGAL**
SIZE:	**3 x 10**
RATE:	**$540.00**
TOTAL:	**$540.00**
EXTRA CHARGE:	
TOTAL AMOUNT DUE:	**$0.00**

CERTIFICATE OF PUBLICATION

I hereby certify that the attached advertisement for **Notice of Availability for the Draft Environmental Assessment and Public Open House Meeting for Security Upgrades at Arlington National Cemetery, Arlington Virginia** *was published in the Arlington CONNECTION NEWSPAPER for 1 successive issues commencing with the issue of April 20, 2022.*

JOHN D. KEATING
NOTARY PUBLIC
REG. # 7727934
MY COMMISSION EXPIRES
05/31/2025
COMMONWEALTH OF VIRGINIA

From:	USARMY Pentagon HQDA ANC OSA Mailbox Cultural Resources
To:	Whitton, Kelly A CIV USARMY ID-SUSTAINMENT (USA); LaFreniere, Richard P CIV USARMY ID-SUSTAINMENT (USA); Eichenlaub, Joseph D CIV WHS FSD (USA); Crawford, Nyokee K (Kim) CIV WHS FSD (USA); GWMP_Superintendent@nps.gov; peter_mccallum@nps.gov; matthew_virta@nps.gov; Maureen_Joseph@nps.gov; thomas.faha@deq.virginia.gov; John.Muse@VDOT.Virginia.gov; Cliccese@arlingtonva.us; des@arlingtonva.us; jfwinstel@wmata.com
Cc:	Smith, Caitlin E CIV USARMY HQDA ANC OSA (USA); TOMPKINS-FLAGG, Nicole Marie (Nik) CIV USN NAVFAC WASHINGTON DC (USA); Sullivan, Agnes K CIV USARMY HQDA ANC OSA (USA); Grace, Claudesedric D CIV USARMY HQDA ANC OSA (USA)
Subject:	Arlington National Cemetery Draft Environmental Assessment - Security Measures
Date:	Wednesday, April 20, 2022 2:29:35 PM
Importance:	High

Dear Interested Party,

Arlington National Cemetery (ANC) has prepared a Draft Environmental Assessment (EA) analyzing proposed security measures for meeting federal facility antiterrorism and force protection (AT/FP) standards. These security measures, both physical and operational, include a security screening memorandum of agreement with
Joint Base Myer-Henderson Hall, establishing an on-site flexible operations center, modifying perimeter fencing, and altering bollards and barriers.

The Draft EA summarizes the potential environmental effects of the proposed action on cultural resources, water resources, biological resources, air quality, utilities, infrastructure, land use, and the surrounding community.

ANC's Cultural Resource Manager has assessed the effects of the proposed undertaking using the criteria of adverse effects (36 Code of Federal Regulations 800.5(a)(1)) and determined the project will have No Adverse Effect on the characteristics which qualify ANC, Arlington Ridge Park National Register District, and the Memorial Amphitheater for listing in the National Register of Historic Places.

An electronic copy of the Draft EA may be obtained at:
https://www.arlingtoncemetery.mil/About/Policies-and-Public-Notices/Public-Notices

ANC will host a public meeting to provide information and solicit comments on the Draft EA per NEPA and Section 106 of the National Historic Preservation Act and The Programmatic Agreement with ANC, Virginia State Historic Preservation Officer, and the Advisory Council on Historic Preservation for the Operation, Maintenance, and Repair Activities at ANC.

The meeting will be an open house format with informative displays and materials available for public review. ANC staff will be present to answer general questions on the proposed security measures, the Draft EA, and Section 106 of the National Historic Preservation Act. You may arrive anytime during the open house.

Date: Tuesday, May 3, 2022
Address: ANC Welcome Center
1 Memorial Avenue
Arlington, VA 22211
Time: 3:00 p.m. – 5:00 p.m.

Comments on the Draft EA or Section 106 may be submitted in writing at the public meeting or by email, NAVFACWASHNEPA1@NAVY.MIL, during the 30-day public comment period, April 20 through May 20, 2022.

V/R,
Stacey M. Rosenquist
Environmental Compliance Program Manager
Arlington National Cemetery
703-614-0520 (o)
703-963-9465 (c)

Caitlin Smith
Cultural Resources Program Manager
Arlngton National Cemetery
703-614-1121 (o)
703-963-9327 (c)

United States Department of the Interior

NATIONAL PARK SERVICE
George Washington Memorial Parkway
Turkey Run Park
McLean, Virginia 22101

IN REPLY REFER TO:

May 31, 2022

Stacey M. Rosenquist
Environmental Compliance Program Manager
Arlington National Cemetery
navfacwashnepa1@navy.mil

Subject: Arlington National Cemetery Draft Environmental Assessment - Security Measures

Thank you for the opportunity to comment on the Draft Environmental Assessment (Draft EA) analyzing proposed security measures for meeting federal facility antiterrorism and force protection (AT/FP) standards at the Arlington National Cemetery (ANC).

The National Park Service (NPS) recognizes that ANC now has administrative jurisdiction over Memorial Avenue west of Route 110 – land that had historically been under NPS jurisdiction. However, despite this change of jurisdiction, the NPS retains a firm and ongoing interest in the continued support of park operations and visitor needs that the Welcome Center currently provides. The Eastern National bookstore has been a partner of the NPS and ANC for decades supporting interpretive, educational, scientific, and historical projects and programs. The visitor experience is enhanced through the retail operation, and it serves as the anchor store to their companion footprint at Arlington House. Other aspects of the welcome center operations, including visitor screening, tram tours, handicap accessibility, are of mutual interest to our programs.

We believe that the proposed modification of a portion of the Welcome Center to function as a flexible operations center for ANC would be inconsistent with the administrative and legislative history for the Welcome Center and would severely diminish the substantial benefits to visitors to the ANC and Arlington House described above. The Draft EA should affirm that the current and future planned use would be to provide for visitor services and amenities, and any other use would not displace or eliminate these critical visitor services.

For approximately 20 years, preceding the existing structure, a visitor center was part of the NPS lands along Memorial Avenue. The current facility constructed in 1988 at a cost of $6M was intended to meet the needs of increased visitation to the area. In 1996, Public Law 104-201 transferred 2.43 acres from the NPS to ANC and included improvements thereon which refers to and includes the visitor center which was a known use at the time. The administrative history includes:

- Correspondence regarding the design and location of the visitor center and how it would enhance the experience for NPS visitors. Reference is made to the 1977 Master Plan, design in 1985, and construction in 1986.
- A 1993 land use agreement, which preceded the land exchange, by which the Army Corps of Engineers, representing ANC interests, agreed to the use of parkland along Memorial Drive by the ANC for its Visitors Center. That agreement in part would allow the Corps to continue its use of the approximately 2.43 acres of land abutting Memorial Drive for the new visitors center.
- April 17, 1998, correspondence perfecting the land exchange stated: "In accordance with the authority provided in Public Law 104-201, approved September 23, 1996, 110 Stat. 2791, we hereby transfer the administrative jurisdiction and control of 2.43 acres of land within the boundary of the George Washington Memorial Parkway to the Secretary of the Army. The property transferred herein is the site of the new Visitor's Center for Arlington National Cemetery and is shown on the enclosed plat marked as Exhibit "A" and more particularly described in Exhibit "B" also enclosed hereto. This transfer is made in exchange for the Secretary of the Army's recent transfer to the Secretary of the Interior of 0.17 of an acre of land within the original reservation of Arlington National Cemetery together with the existing Old Administration Building and a perpetual right of ingress and egress thereto."

The use of the current facility to support visitor services and amenities such as security screening, bookstore, interpretation, tram, and restrooms provide a quality experience and should continue. The adaptive reuse of the facility for an emergency operations center would introduce unnecessary and incompatible user conflicts.

We have enclosed documents from our records which can inform the Draft EA. We believe the legislative intent and administrative record is clear and Arlington National Cemetery should uphold those obligations and responsibilities with changes to the Draft EA.

Sincerely,

Charles Cuvelier Date: 2022.05.31 13:13:50 -04'00'

Charles Cuvelier
Superintendent

Cc:
Caitlin Smith, Cultural Resources Program Manager, Arlington National Cemetery, caitlin.e.smith36.civ@army.mil
Tammy Stidham, Deputy Associate Regional Director – Lands and Planning, Tammy_stidham@nps.gov