Final Site-Specific Environmental Assessment:
Proposed Construction and Operation of the
Jacksonville National Cemetery Phase 2 Expansion
Jacksonville, Duval County, Florida

U.S. Department of Veterans Affairs
425 I Street, NW
Washington, DC 20001

April 2019
EXECUTIVE SUMMARY AND CONCLUSIONS

In this Site-Specific Environmental Assessment (SEA), the U.S. Department of Veterans Affairs (VA), National Cemetery Administration (NCA) identifies, analyzes, and documents the potential physical, environmental, cultural, and socioeconomic impacts associated with the Proposed Action to construct and operate an approximately 50-acre cemetery expansion at the Jacksonville National Cemetery at 4083 Lannie Road, Jacksonville, Duval County, Florida. The cemetery expansion would extend the longevity of the Jacksonville National Cemetery and allow VA to continue providing burial opportunities needed by Veterans and their families in northern Florida. The cemetery expansion would provide additional casket, columbarium, and in-ground cremation sites, as well as expanded infrastructure including roadways, irrigation, landscaping, and stormwater management systems.

The cemetery expansion would be located within a portion of the larger Phase 2 development area identified in VA’s overall cemetery Master Plan developed in 2007 (VA, 2007) and would be constructed and operated according to VA’s NCA Facilities Design Guide.

The purpose of the Proposed Action is to ensure there is sufficient burial capacity available at the Jacksonville National Cemetery, enable NCA to continue providing burial options for eligible Veterans and their families in northern Florida, and extend the longevity of the Jacksonville National Cemetery.

Due to gravesite depletion, the Proposed Action is needed to allow NCA to continue meeting its goal of providing eligible Veterans with reasonable access to VA burial options in northern Florida. The current interment capacity at the Jacksonville National Cemetery is limited to the Phase 1 development, which is at or near capacity and is not large enough to allow NCA to continue meeting its goal of providing eligible Veterans and their families with reasonable access to VA burial options in northern Florida over the next decade. Potential lack of burial capacity at the Jacksonville National Cemetery would burden Veterans and their families by requiring them to seek burial benefits at other National Cemeteries located outside of northern Florida.

Two alternatives are analyzed in this SEA:

- **The Proposed Action** would expand the Jacksonville National Cemetery within an approximately 50-acre portion of the Phase 2 development area identified in the 2007 Master Plan (VA 2007). The expansion area is located adjacent to and east of the existing Phase 1 cemetery and is currently leased for use as cattle pasture. The Proposed Action would provide approximately 8,050 pre-placed crypt sites, 4,400 cremains sites, and 5,760 columbarium niches; extend existing roadways to these new burial areas; create a new stormwater retention basin to accommodate new stormwater runoff; enlarge an existing stormwater retention basin by approximately 3 acres; and extend existing irrigation utilities to help maintain new landscaping in the expansion area. The Proposed Action will extend the longevity of the Jacksonville National Cemetery and accommodate long-term burial needs of future generations of Veterans and their families in northern Florida.

- **The No Action alternative** would maintain the Jacksonville National Cemetery as it presently exists, and not implement the proposed expansion. Under the No Action alternative, future burial options would be limited to the remaining capacity of the Phase 1 cemetery. This would ultimately reduce the longevity of the Jacksonville National Cemetery. Future generations of eligible Veterans and their families increasingly would not have long-term, reasonable access to burial benefits at a National Cemetery in northern Florida. The nearest National Cemeteries with capacity are Cape Canaveral National Cemetery, located approximately 150 miles south; Florida National Cemetery in Bushnell, Florida located 160 miles south; Tallahassee National Cemetery, located 175 miles west; and South Florida National Cemetery, located 310 miles south. The No Action alternative would not meet the identified purpose or need for the action and would place an undue burden on Veterans, their families, and visitors, by requiring extended travel to reach a National Cemetery outside of northern Florida.

The following table summarizes the potential environmental impacts of the Proposed Action and the No Action alternatives.
<table>
<thead>
<tr>
<th>Resource / Issue</th>
<th>Proposed Action</th>
<th>No Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>Minor, short-term adverse impact from presence of heavy equipment during construction. Receptors limited to visitors in the existing portion of the National Cemetery. Long-term beneficial impact from converting pasture to a National Shrine with a park-like setting. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Minor, short-term impact from construction emissions, which are below <em>de minimis</em> threshold levels. No significant adverse impact</td>
<td>Negligible adverse impact from increased emissions associated with longer travel distances to National Cemeteries outside of northern Florida.</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>No cultural resources identified in the expansion area. VA will comply with the Native American Graves Protection and Repatriation Act (NAGPRA), coordinate with the State Historic Preservation Officer (SHPO) and the Tribes if artifacts or remains are uncovered during construction, and follow proper management procedures. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Geology, Topography, and Soils</td>
<td>No impact on geology. Minor, long-term impact on topography due to raising the elevation of existing topography for burial areas and roadways. Minor, short-term impact on soils from erosion during construction and accidental release of construction vehicle operating fluids. No prime farmland is present. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>Minor, long-term potential impact to surface waters from filling man-made drainage ditches, potential sedimentation of runoff, and potential groundwater impacts from accidental release of construction vehicle operating fluids. Impacts minimized by mitigation per approved SJRWMD and USACE permits, and compliance with EISA 438 and SJRWMD pre- and post-development hydrology measures. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Wildlife and Habitat</td>
<td>Minor, long-term loss of habitat due to conversion of pasture/grassland to professionally maintained landscape. Impacts minimized avoiding and relocation of listed fauna and creation/enhancement of habitat per existing permits. No listed flora are present. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Noise</td>
<td>Minor, short-term adverse noise impacts due to heavy machinery associated with clearing and grading during construction. Receptors limited to Jacksonville National Cemetery visitors and few nearby residents. Minor, long-term impacts due to grounds maintenance equipment in the expansion area. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Land Use</td>
<td>Expansion is consistent with existing zoning and land use conditions. No impact.</td>
<td>No impact.</td>
</tr>
<tr>
<td>Resource / Issue</td>
<td>Proposed Action</td>
<td>No Action</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Floodplains, Wetlands, and Coastal Zone Management</td>
<td>Short-term, direct, less-than-significant adverse impact on wetlands due to unavoidable filling of wetlands. Impact reduced through creation/restoration of compensatory mitigation per existing permits and implementation of erosion and sediment control measures. No floodplains present at the expansion site. Expansion is consistent with coastal zone management requirements. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Socioeconomics</td>
<td>Minor, short-term, localized beneficial impact to employment and purchase of supplies during construction. No impact during operation. No significant adverse impact</td>
<td>Long-term, significant adverse impact once cemetery is closed to new burials in several years. Not in compliance with <strong>Service Members Civil Relief Act</strong>.</td>
</tr>
<tr>
<td>Community Services</td>
<td>Long-term, significant beneficial impact by extending the longevity of the Jacksonville National Cemetery, benefiting Veterans and their families throughout northern Florida.</td>
<td>No impact.</td>
</tr>
<tr>
<td>Solid and Hazardous Materials</td>
<td>Minor, short-term increase in solid waste generation (excess construction materials that cannot be recycled) during construction. Negligible volumes of solid wastes generated during operation; no new types of wastes generated. No significant adverse impact</td>
<td>No impact.</td>
</tr>
<tr>
<td>Transportation and Parking</td>
<td>Minor, short-term adverse impact from increased construction traffic traveling on Lannie Road. No operational transportation or parking impact. No significant adverse impact.</td>
<td>No impact.</td>
</tr>
<tr>
<td>Utilities</td>
<td>Negligible impact due to increase in electrical utility use for irrigation water pumps. No significant adverse impact.</td>
<td>No impact.</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>Not anticipated to have an impact on minority or low-income populations.</td>
<td>No impact.</td>
</tr>
<tr>
<td>Potential for Generating Substantial Controversy</td>
<td>Extending the longevity of the Jacksonville National Cemetery would be positively perceived by the Veteran community and general public in northern Florida.</td>
<td>Substantial adverse reaction if expansion is not implemented</td>
</tr>
</tbody>
</table>

The impacts from the Proposed Action, when considered on a cumulative basis with impacts from past projects and probable future projects at and in the vicinity of the Jacksonville National Cemetery, remain at less-than-significant adverse levels for the environmental resources analyzed in this SEA. Likewise, the No Action alternative would remain at a significantly adverse level on a cumulative basis due to the unmitigated impact on Community Services (decreased longevity of the Jacksonville National Cemetery due to lack of burial opportunities at a National Cemetery in northern Florida. Additionally, the No Action alternative does not meet the purpose and need for the action. Therefore, VA has selected the Proposed Action as the preferred alternative.

**Agency and Public Involvement**

The Draft SEA, dated November 2018, was made available for review and comment from December 4, 2018, to January 16, 2019. A Notice of Availability (NOA) announcing the release of the Draft SEA was published in the *Florida Times-Union* on December 4, 9, 14, and 16, 2018. VA also mailed letters on December 3, 2018 to request comments from regulatory agencies and Native American Tribes. No
comments from the public were received. The Seminole Tribe of Florida had no objections to the Proposed Action. The U.S. Environmental Protection Agency (USEPA) mentioned adherence to existing state and federal permits to mitigate wetland impacts, and recommended engineered controls to limit air emissions from diesel-fueled construction equipment. The Florida State Clearinghouse commented that the project could proceed without further review. No other regulatory agencies comments on the Draft SEA were received.

**Conclusion**

The analyses presented in the Draft SEA and comments received provide sufficient evidence and analysis for VA to determine that the Proposed Action would not cause significant environmental impacts on the environmental resources presented herein. Thus, VA concludes that an Environmental Impact Statement (EIS) is not warranted and has prepared a finding of no significant impact (FONSI) (40 CFR 1508.9). A NOA announcing the release of the Final SEA and FONSI has been published in the *Florida Times-Union*. 
# Table of Contents

**EXECUTIVE SUMMARY AND CONCLUSIONS** ................................................................. i  
**ACRONYMS AND ABBREVIATIONS** ................................................................................... vii  

## 1 INTRODUCTION .................................................................................................................. 1  
1.1 PURPOSE AND NEED ........................................................................................................... 7  
1.2 EXISTING SITE DETAILS .................................................................................................. 7  
1.3 JACKSONVILLE NATIONAL CEMETERY REGULATORY PLANNING HISTORY ............... 8  
1.3.1 SJRWMD Permits ........................................................................................................... 8  
1.3.2 USACE Permits ............................................................................................................ 8  
1.3.3 Summary of Remaining Permit Needs ........................................................................... 9  
1.3.4 Summary of Remaining Mitigation Requirements ......................................................... 9  
1.4 DECISION MAKING ......................................................................................................... 9  

## 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES ............ 11  
2.1 DEVELOPMENT OF ALTERNATIVES ............................................................................. 11  
2.2 PROPOSED ACTION .......................................................................................................... 11  
2.3 NO ACTION ALTERNATIVE ............................................................................................. 13  
2.4 ALTERNATIVES IDENTIFIED BUT NOT EVALUATED IN DETAIL .................................. 13  

## 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES ....... 14  
3.1 AESTHETICS ..................................................................................................................... 14  
3.1.1 Existing Environment .................................................................................................... 14  
3.1.2 Environmental Consequences ....................................................................................... 15  
3.2 AIR QUALITY ....................................................................................................................... 16  
3.2.1 Regional Climate .......................................................................................................... 16  
3.2.2 Air Quality Standards .................................................................................................. 16  
3.2.3 Existing Emissions Sources .......................................................................................... 17  
3.2.4 Sensitive Receptors ...................................................................................................... 17  
3.2.5 Environmental Consequences ....................................................................................... 17  
3.3 CULTURAL RESOURCES ................................................................................................... 19  
3.3.1 Existing Environment .................................................................................................... 19  
3.3.2 Environmental Consequences ....................................................................................... 20  
3.4 GEOLOGY, TOPOGRAPHY, AND SOILS ......................................................................... 21  
3.4.1 Existing Environment .................................................................................................... 21  
3.4.2 Environmental Consequences ....................................................................................... 26  
3.5 HYDROLOGY AND WATER QUALITY .............................................................................. 27  
3.5.1 Existing Environment .................................................................................................... 27  
3.5.2 Environmental Consequences ....................................................................................... 29  
3.6 WILDLIFE AND HABITAT .................................................................................................. 31  
3.6.1 Existing Environment .................................................................................................... 31  
3.6.2 Environmental Consequences ....................................................................................... 32  
3.7 NOISE ............................................................................................................................... 33  
3.7.1 Existing Environment .................................................................................................... 33  
3.7.2 Environmental Consequences ....................................................................................... 33  
3.8 LAND USE .......................................................................................................................... 34  
3.8.1 Existing Environment .................................................................................................... 34
Table of Contents

3.8.2 Environmental Consequences .................................................................34
3.9 Floodplains, Wetlands, and Coastal Zone Management ........................................34
   3.9.1 Existing Environment ...........................................................................34
   3.9.2 Environmental Consequences .................................................................36
3.10 SocioEconomics .........................................................................................37
   3.10.1 Existing Environment ...........................................................................37
   3.10.2 Environmental Consequences .................................................................38
3.11 Community Services ...................................................................................38
   3.11.1 Existing Environment ...........................................................................38
   3.11.2 Environmental Consequences .................................................................39
3.12 Solid and Hazardous Materials ....................................................................39
   3.12.1 Existing Environment ...........................................................................39
   3.12.2 Environmental Consequences .................................................................39
3.13 Transportation and Parking ......................................................................40
   3.13.1 Existing Environment ...........................................................................40
   3.13.2 Environmental Consequences .................................................................41
3.14 Utilities .......................................................................................................43
   3.14.1 Existing Environment ...........................................................................43
   3.14.2 Environmental Consequences .................................................................43
3.15 Environmental Justice ..............................................................................43
   3.15.1 Existing Environment ...........................................................................43
   3.15.2 Environmental Consequences .................................................................44
3.16 Cumulative Impacts ..................................................................................44
   3.16.1 Proposed Action ....................................................................................44
   3.16.2 No Action ..............................................................................................45
3.17 Potential for Generating Substantial Controversy .......................................46

4 Agency Coordination and Public Involvement ............................................47
   4.1 Draft SEA .................................................................................................47
      4.1.1 Federal, State, and Local Agency Coordination .......................................47
      4.1.2 Native American Tribal Coordination ....................................................48
      4.1.3 Public Involvement .............................................................................48
   4.2 Final SEA and FONSI ..............................................................................48

5 Best Management Practices and Permitting .............................................49
   5.1 Best Management Practices ....................................................................49
   5.2 List of Potential Environmental Permits Required ....................................53

6 List of Preparers ............................................................................................55

7 References .....................................................................................................56

8 Glossary ..........................................................................................................58
Tables
Table 1. Estimate of Particulate Emissions during Construction of the Proposed Action ......................... 17
Table 2. Estimate of Annual Non-Road Emissions of Criteria Pollutants during Construction of the Proposed Action ........................................................................................................... 18
Table 3. Estimated Total Operational Hours for Construction Equipment ........................................ 18
Table 4. SCAB Fleet Average Emission Factors (Diesel) .................................................................... 18
Table 5. Total Criteria Pollutant Emissions from Non-Road Construction Vehicles ......................... 18
Table 6. USDA-NRCS Soils within the Proposed Action Area ............................................................. 23
Table 7. Listed Species Potentially Occurring within Proposed Expansion Area ............................. 31
Table 8. Demographic Data for the State of Florida and Duval County ............................................. 37
Table 9. Economic Data for the State of Florida and Duval County ................................................ 37
Table 10. Minority and Low-Income Populations .............................................................................. 44
Table 11. Environmental Protection Measures and Monitoring Incorporated into the Proposed Action ... 49

Figures
Figure 1. Site Location Map ................................................................................................................. 2
Figure 2. 2007 Master Plan for the Jacksonville National Cemetery ..................................................... 3
Figure 3. Aerial Photo of the Proposed Expansion Area ...................................................................... 4
Figure 4. Phase 2 Expansion Wetland Impacts and On-Site Mitigation Map ....................................... 5
Figure 5. Sinkhole Map ....................................................................................................................... 22
Figure 6. Slope Analysis Map ............................................................................................................. 24
Figure 7. Soil Map .............................................................................................................................. 25
Figure 8. Drainage Basin Map ............................................................................................................ 28
Figure 9. FEMA Floodplain Map ....................................................................................................... 35
Figure 10. Proposed FDOT Access Road .......................................................................................... 42

Appendices
Appendix A – Background Documents
Appendix B – Regulatory Communications
Appendix C – Environmental Survey Reports
Appendix D – Public Involvement
# ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym/abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>APE</td>
<td>Area of Potential Effect</td>
</tr>
<tr>
<td>bgs</td>
<td>below ground surface</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practice</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CEQ</td>
<td>Council on Environmental Quality</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>CUP</td>
<td>Consumptive Use Permit</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>CZMA</td>
<td>Coastal Zone Management Act</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EISA</td>
<td>Energy Independence and Security Act</td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
</tr>
<tr>
<td>ERP</td>
<td>Environmental Resource Permit</td>
</tr>
<tr>
<td>ESI</td>
<td>Environmental Services, Inc.</td>
</tr>
<tr>
<td>FAC</td>
<td>Florida Administrative Code</td>
</tr>
<tr>
<td>FCMP</td>
<td>Florida Coastal Management Program</td>
</tr>
<tr>
<td>FDEP</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>FDHR</td>
<td>Florida Department of Historic Resources</td>
</tr>
<tr>
<td>FDOT</td>
<td>Florida Department of Transportation</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
</tr>
<tr>
<td>FIRM</td>
<td>Flood Insurance Rate Map</td>
</tr>
<tr>
<td>FLUCFCS</td>
<td>Florida Land Use, Cover and Forms Classification System</td>
</tr>
<tr>
<td>FNAI</td>
<td>Florida Natural Areas Inventory</td>
</tr>
<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>FPPA</td>
<td>Farmland Protection Policy Act</td>
</tr>
<tr>
<td>FS</td>
<td>Florida Statutes</td>
</tr>
<tr>
<td>FWC</td>
<td>Florida Fish and Wildlife Conservation Commission</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse Gases</td>
</tr>
<tr>
<td>GPD</td>
<td>gallons per day</td>
</tr>
<tr>
<td>MCC</td>
<td>Montgomery Correctional Center</td>
</tr>
<tr>
<td>MG</td>
<td>million gallons</td>
</tr>
<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
</tr>
<tr>
<td>NAGPRA</td>
<td>Native American Graves Protection and Repatriation Act</td>
</tr>
<tr>
<td>NCA</td>
<td>National Cemetery Administration</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>NHPA</td>
<td>National Historic Preservation Act</td>
</tr>
<tr>
<td>NO₂</td>
<td>Nitrogen Dioxide</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>Nitrous Oxides</td>
</tr>
<tr>
<td>NOA</td>
<td>Notice of Availability</td>
</tr>
<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
</tr>
<tr>
<td>NPS</td>
<td>National Park Service</td>
</tr>
<tr>
<td>NRCS</td>
<td>Natural Resources Conservation Service</td>
</tr>
<tr>
<td>NRHP</td>
<td>National Register of Historic Places</td>
</tr>
<tr>
<td>O&lt;sub&gt;3&lt;/sub&gt;</td>
<td>Ozone</td>
</tr>
<tr>
<td>OCFM</td>
<td>VA Office of Construction and Facility Management</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>OR</td>
<td>Official Records</td>
</tr>
<tr>
<td>Pb</td>
<td>Lead</td>
</tr>
<tr>
<td>PIC</td>
<td>Public Information Center</td>
</tr>
<tr>
<td>PM</td>
<td>Particulate Matter</td>
</tr>
<tr>
<td>ROG</td>
<td>Reactive Organic Gases</td>
</tr>
<tr>
<td>SCAQMD</td>
<td>South Coast Air Quality Management District</td>
</tr>
<tr>
<td>SEA</td>
<td>Site-Specific Environmental Assessment</td>
</tr>
<tr>
<td>SESC</td>
<td>Soil Erosion and Sedimentation Control</td>
</tr>
<tr>
<td>SHOP</td>
<td>Serious Habitual Offender Program</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Officer</td>
</tr>
<tr>
<td>SIP</td>
<td>State Implementation Plan</td>
</tr>
<tr>
<td>SO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>Sulfur Dioxide</td>
</tr>
<tr>
<td>SO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>Sulfur Oxides</td>
</tr>
<tr>
<td>SOP</td>
<td>standard operating procedure</td>
</tr>
<tr>
<td>SJRWMD</td>
<td>St. Johns River Water Management District</td>
</tr>
<tr>
<td>SWPPP</td>
<td>Stormwater Pollution Prevention Plan</td>
</tr>
<tr>
<td>UMAM</td>
<td>Uniform Mitigation Assessment Method</td>
</tr>
<tr>
<td>USACE</td>
<td>U. S. Army Corps of Engineers</td>
</tr>
<tr>
<td>USC</td>
<td>United States Code</td>
</tr>
<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
</tr>
<tr>
<td>USEPA</td>
<td>U.S. Environmental Protection Agency</td>
</tr>
<tr>
<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
</tr>
<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
</tr>
<tr>
<td>VA</td>
<td>U.S. Department of Veterans Affairs</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compound</td>
</tr>
</tbody>
</table>
1 INTRODUCTION

The U.S. Department of Veterans Affairs (VA) National Cemetery Administration (NCA) honors Veterans and their families with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to the nation. NCA maintains approximately 3.3 million gravesites at 135 National Cemeteries and 33 soldiers’ lots and monument sites in 40 states and Puerto Rico (VA, 2017). VA Office of Construction and Facility Management (OCFM) mission is to advance VA’s larger mission in support of the nation’s Veterans by planning, designing, constructing, and acquiring major facilities and setting design and construction standards. This document addresses a proposal to expand the Jacksonville National Cemetery, located at 4038 Lannie Road, Jacksonville, Duval County, Florida (Figure 1).

In 2003, NCA identified the need to construct a new National Cemetery to serve the northern Florida region. Fourteen sites in northeast Florida were initially identified, but only two sites—both along Lannie Road in Jacksonville, Florida—were ultimately identified as able to accommodate a new National Cemetery. An Environmental Assessment (EA) evaluating the physical, biological, and cultural resources effects of developing a new National Cemetery at each site (“City Site” and “Wright Site”) was completed in May 2006 (“2006 Final EA”) (VA, 2006). Based on the 2006 Final EA, VA selected and purchased the City Site. In 2007, VA completed a Master Plan (“2007 Master Plan”) for the phased development of the approximately 526-acre Jacksonville National Cemetery property over the next 100 years (VA, 2007) (Figure 2). The 2007 Master Plan identified the initial Phase 1 cemetery on the western side of the property and included interment areas and the physical infrastructure needed to support future development phases. The Phase 2 cemetery boundary was identified as an approximately 200-acre area located adjacent to and east of the Phase 1 cemetery (Figure 3). The 2007 Master Plan also identified where environmental protection areas would be located throughout the property.

Following completion of the 2007 Master Plan, VA secured permits from the St. Johns River Water Management District (SJRWMD) and the U.S. Army Corps of Engineers (USACE) to construct Phase 1 (including Phases 1A and 1B) and Phase 2, based on the conceptual design presented in the 2007 Master Plan. These permits defined the regulated resources and preservation areas within each phase and the mitigation that would be required once construction and operation occurred for each phase.

In 2009, Phase 1 of the 2007 Master Plan was constructed in the western portion of the property, and the first burials occurred that same year. The Phase 1 cemetery included burial areas containing traditional grave sites and in-ground interments for cremated remains, as well as the physical infrastructure needed to support the majority of planned future expansion phases, including an administration/public information center (“PIC/Admin”), maintenance building, committal service shelters, a main entrance, drainage/stormwater management system, and utility connections. Due to gravesite depletion, the Phase 1 cemetery is anticipated to reach full burial capacity within the next several years.

As a result, VA in 2016 identified the need to provide additional burial capacity at the Jacksonville National Cemetery and determined that partial build-out of existing Phase 2 cemetery design could address this need for at least another 10 years. To date, no development has occurred within the Phase 2 boundary. However, it is noted that any future development within the Phase 2 boundary would be completed within the development boundaries specified in the current SJRWMD and USACE permits, which are still valid and applicable, and the 2007 Master Plan on which the permits are based.

An analysis was done to determine the amount of compensatory mitigation required to offset the 11.87 acres of wetland impacts proposed by the Phase 2 expansion. Based on the Uniform Mitigation Assessment Method (UMAM) scores previously approved by the SJRWMD and the USACE, it was determined that 2.77 acres of upland preservation and 27.97 acres of wetland creation would be required to balance the functional loss (Figure 4).
Figure 1. Site Location Map
Figure 2. 2007 Master Plan for the Jacksonville National Cemetery
Figure 3. Aerial Photo of the Proposed Expansion Area
Figure 4. Phase 2 Expansion Wetland Impacts and On-Site Mitigation Map
The Proposed Action to expand the Jacksonville National Cemetery is considered a major federal action by VA. Therefore, in compliance with VA’s Implementing Regulations for the National Environmental Policy Act (NEPA), VA prepared this Site-Specific Environmental Assessment (SEA) to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with implementing the construction and operational elements of the Proposed Action. Additionally, this SEA evaluates the potential impacts associated with a No Action alternative (i.e., not implementing the Proposed Action), whereby the current conditions at the Jacksonville National Cemetery would remain unchanged.

In summary, the two alternatives analyzed in this SEA are:

- **The Proposed Action** is to expand the Jacksonville National Cemetery within an approximately 50-acre portion of the Phase 2 development area identified in the 2007 Master Plan (VA, 2007). The expansion area is primarily located adjacent to and east of the existing Phase 1 cemetery and is currently leased for use as cattle pasture. The Proposed Action would provide approximately 8,050 pre-placed crypt sites, 4,400 cremains sites, and 5,760 columbarium niches; extend existing roadways to these new burial areas; enlarge an existing stormwater retention basin to accommodate new stormwater runoff; and extend existing and install new irrigation utilities to support the newly landscaped burial areas. The Proposed Action will extend the longevity of the Jacksonville National Cemetery and accommodate long-term burial needs of future generations of Veterans and their families in northern Florida.

- **The No Action** alternative is to maintain the Jacksonville National Cemetery as it presently exists and not implement the proposed expansion. Under the No Action alternative, future burial options would be limited to the remaining capacity of the Phase 1 cemetery. This would ultimately reduce the longevity of the Jacksonville National Cemetery. Future generations of eligible Veterans and their families increasingly would not have long-term, reasonable access to burial benefits at a National Cemetery in northern Florida. The nearest National Cemetery open to new interments, the Cape Canaveral National Cemetery, is located approximately 150 miles south of the Jacksonville National Cemetery, followed by the Florida National Cemetery in Bushnell, Florida located 160 miles south, the Tallahassee National Cemetery located 175 miles west, and the South Florida National Cemetery located 310 miles south. Therefore, the No Action alternative would place an undue burden on Veterans, their families, and visitors, by requiring extended travel to reach a National Cemetery outside of northern Florida. Therefore, the No Action alternative would not meet the purpose and need for the action.

This SEA was conducted in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] 4321 et seq.), the White House Council on Environmental Quality (CEQ) “Regulations Implementing the Procedural Provisions of NEPA” (40 Code of Federal Regulations [CFR] 1500-1508), VA’s NEPA regulations titled “Environmental Effects of the Department of Veterans Affairs Actions” (38 CFR 26), and VA’s NEPA Interim Guidance for Projects (VA, 2010). These requirements specify that VA must evaluate the potential environmental impacts of VA facilities, operations, and related funding decisions prior to taking action. VA must apply the NEPA review process and use the information to make an informed decision prior to undertaking a proposed action. An EA provides sufficient evidence and analysis for determining whether an action would cause significant environmental impacts (requiring an Environmental Impact Statement [EIS]) or the agency can issue a finding of no significant impact (FONSI) (40 CFR 1508.9). A FONSI is a decision document that briefly presents the reasons why an action would not have a significant effect on the human environment (40 CFR 1508.13). As required by NEPA and the implementing regulations from CEQ and VA, the alternative of taking no action is evaluated, providing a baseline for comparison of potential impacts from the action alternative(s).

This SEA tiers to selected portions of the 2006 Final EA for the site selection of the Jacksonville National Cemetery (VA, 2006). This approach is in full compliance with CEQ Regulations that state that NEPA documents should be “analytic rather than encyclopedic” (40 CFR 1502.2a) and that scoping should be used to “identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (40 CFR 1506.3), narrowing the discussion of these issues in the statement [EA] to a brief presentation of why they would not have a significant effect on the human...
environment or providing a reference to their coverage elsewhere” (40 CFR 1501.7(a)(3)). Accordingly, VA is using "Incorporation by Reference" per 40 CFR 1502.21 and "Tiering" per 40 CFR 102.20 to reduce the volume of this SEA and relies on information previously developed and analyzed in the prior 2006 Final EA (VA, 2006).

This SEA presents the purpose of and need for the Proposed Action and the project background (Chapter 1), provides details of the alternatives (Chapter 2), and describes the affected environment and evaluates the potential environmental consequences (Chapter 3). The remainder of the document provides a summary of agency coordination and public involvement (Chapter 4), best management practices and permitting (Chapter 5), a list of preparers (Chapter 6), references (Chapter 7), and a glossary (Chapter 8).

1.1 Purpose and Need

Thus, the purpose of the Proposed Action is to enable NCA to continue providing interment benefits to the estimated 400,000 eligible Veterans and their families in northern Florida by extending the longevity of the Jacksonville National Cemetery.

Due to gravesite depletion, the Proposed Action is needed to allow NCA to continue meeting its goal of providing eligible Veterans with reasonable access to VA burial options in northern Florida.

A lack of burial capacity at the Jacksonville National Cemetery would burden Veterans and their families by requiring them to seek burial benefits at another National Cemetery located outside of northern Florida. Veterans and their families would be required to travel more than 75 miles to the nearest National Cemetery with available capacity, which includes Cape Canaveral National Cemetery in Titusville, located 150 miles south; Florida National Cemetery in Bushnell, located 160 miles south; Tallahassee National Cemetery, located 175 miles west; and South Florida National Cemetery in Law Worth, located 310 miles south.

1.2 Existing Site Details

The Jacksonville National Cemetery is located at 4083 Lannie Road, Jacksonville, Duval County, Florida. The Jacksonville National Cemetery is located in a rural area north of the city of Jacksonville, in the northern portion of Duval County. The cemetery property covers approximately 526 acres; Lannie Road bisects the northern and southern portions of the property. The property is located in Sections 38, 40, and 41 of Township 2 North, Range 26 East and Sections 39, 40, and 41 of Township 1 North, Range 26 East. The Jacksonville National Cemetery currently consists of an approximately 52-acre “Phase 1” cemetery development with capacity for approximately 100,000 burial areas, including 8,145 full casket gravesites, including 7,300 pre-placed crypts; 5,100 in-ground cremation sites; and over 5,000 columbarium niches. The Phase 1 cemetery includes roadways, a main entrance, a cortège assembly area, an administration/public information center, a maintenance complex, a flag assembly area, a memorial walkway, two committal service shelters, and stormwater retention basins.

As of March 2018, approximately 14,900 interments have been completed within the Phase 1 portion of the Jacksonville National Cemetery. However, interment capacity within the Phase 1 cemetery continues to be depleted while the demand for reasonable burial options for Veterans in northern Florida continues to increase. On average, there are approximately 38 interment services per week. Approximately 98.5 percent of the burials are for Veterans and are accompanied by a three-to five-gun salute; the remaining 1.5 percent of burials are for Veterans’ relatives.

The proposed Phase 2 expansion area is approximately 50 acres and is located within the approximately 200-acre Phase 2 development boundary identified in the 2007 Master Plan. The area is located generally to the east of the Phase 1 cemetery. The majority of the Phase 2 area is currently leased by VA to a local cattle rancher for use as pasture land. The Phase 2 area is bordered by a drainage canal and Lannie Road to the south, the Phase 1 stormwater retention basin to the north, the Phase 1 preservation area to the east, and a second Phase 1 stormwater retention basin to the west. Additional physical and environmental details of the proposed Phase 2 expansion area are provided in Section 3.
1.3 Jacksonville National Cemetery Regulatory Planning History

VA secured the following permits from the SJRWMD and the USACE to construct Phases 1A, 1B, and 2 based on the conceptual design presented in the 2007 Master Plan. The mitigation requirements described in the following permit discussions are excerpted from these permits. Copies of these permits are available from the issuing agencies. Relevant portions of the permits are included in Appendix A.

1.3.1 SJRWMD Permits

The SJRWMD Environmental Resource Permit (ERP)-115730-1 was issued on June 2, 2008, to construct Phase 1A of the Jacksonville National Cemetery. This permit authorized the construction of a stormwater management system within the 18.06-acre Phase 1A area. There were no wetlands within this phase of construction.

On behalf of VA, Environmental Services, Inc. (ESI) delineated boundaries of on-site wetlands pursuant to the methodology provided within Chapter 62-340, Florida Administrative Code (FAC), “Delineation of the Landward Extent of Wetlands and Surface Waters” during field evaluations for the future proposed development of the Phase 2 cemetery as designed in the Master Plan. These wetland boundaries were verified in the field by the SJRWMD and used in the formal determination and subsequent permitting efforts described below. The SJRWMD issued a formal jurisdictional determination for these wetlands on February 9, 2009.

SJRWMD ERP-115730-2 was issued July 13, 2009, to modify and expand the stormwater management system serving the cemetery to authorize construction of the Phase 1B cemetery. Improvements included site filling and grading, curb and gutter roadways, parking, administrative and maintenance buildings, inlets and storm sewers, and four wet detention ponds. This permit authorized 5.18 acres of wetland impacts: 4.86 acres of forested wetlands and 0.32 acres of herbaceous wetlands within the Phase 1B project area. The mitigation proposed consisted of 58.83 acres of wetlands to be preserved, along with an adjacent upland buffer preservation area of 4.95 acres. The wetland preservation areas are located adjacent to the Model Airplane Field access road and also throughout VA property located immediately south of Lannie Road. These areas were required to be placed under conservation easement, which was recorded October 1, 2009, within Duval County Official Records (OR) Book 15023 and Page 1214.

SJRWMD ERP-115730-3 was issued on May 30, 2012, to construct a stormwater management system for the future proposed Phase 2 cemetery. This permit authorized the impact to 17.02 acres of wetlands and 4.81 acres of upland cut ditches. This permit required compensatory mitigation through the creation of 30.35 acres of wetlands adjacent to 6.16 acres of upland preservation. These creation and preservation areas are located within VA property south of Lannie Road, adjacent to the wetland preservation parcels identified for mitigation within ERP-115730-2. These creation areas were also placed under conservation easement, which was recorded June 22, 2012, within the Duval County OR Book 15976, Page 2098.

SJRWMD ERP-115730-5 was issued February 9, 2018, to modify ERP-115730-3 for approved wetland impacts for Phase 2 and conceptual approval of wetland impacts and mitigation for Phase 3. This modification request includes only changes to the mitigation plan; with no changes being proposed to the engineering or permitted impacts. The proposed modification comprises the release of 0.83 acres of the upland buffer conservation easement recorded in Duval County OR Book 15976, Page 2098. Along with this release request, an in-kind replacement of 0.83 acres of upland buffer was proposed to be added elsewhere within the project site.

1.3.2 USACE Permits

USACE Nationwide Permit SAJ-2006-02208 (NW-BAL) was issued on June 19, 2008, to construct Phase 1A of the Jacksonville National Cemetery. This permit authorized the construction of access roads, ponds, and additional cemetery features within the 18.06-acre Phase 1A area, and authorized 0.06 acres of impact to upland cut ditches that did not require compensatory mitigation.

USACE Standard Permit SAJ-2006-02208 (SP-BAL) was issued on August 18, 2009, to authorize unavoidable impacts to 27.38 acres of wetlands (including 6.76 acres of ditch impacts) to construct the
Phase 1B cemetery, as well as for future proposed development of the Phase 2 cemetery as designed in the Master Plan. This permit required compensatory mitigation in the form of 58.52 acres of wetlands located adjacent to the Model Airplane Field access road (in the eastern portion of the property, north of Lannie Road) and within VA property south of Lannie Road. Within these preservation areas, USACE requires wetland enhancement achieved by removing Chinese tallow (Sapium sebiferum) and additional hydrologic improvements through the plugging of several on-site ditches. Once these improvements are performed, USACE requires a time-zero report and semi-annual compliance reports for the first three years, and annual monitoring for no less than five years thereafter. These 58.52 acres of wetlands were also required to be placed under conservation easement. The conservation easement was recorded on October 1, 2009, within the Duval County OR Book 15023 and Page 1214.

USACE Standard Permit SAJ-2006-02208 (SP-BAL) was modified on March 21, 2011, to authorize an additional 1.62 acres of wetland impacts in the northwestern portion of the future Phase 2 cemetery boundary, along the Model Airplane Field access road that were inadvertently labeled as “wetland preservation” on the permit drawings. In addition, a 0.05-acre impact located along the Model Airplane Field access road was not included on the permit drawings. As a result of these required modifications, additional wetland impacts (totaling 1.62 acres) were added to the permit. The addition of these impacts required mitigation through the creation of 1.1 acres of wetlands, which are located at the southeast corner of the cemetery property, directly adjacent to the previously identified wetland creation area. This permit, and the associated consultations (Sections 7 and 106) that were required to obtain the permit, remain valid through August 18, 2024.

1.3.3 Summary of Remaining Permit Needs

Based upon a review of permits previously issued by the SJRWMD and the USACE, prior to engaging in construction of the proposed Phase 2 expansion, VA will be required to finalize their request for ERP-115730-05. If the application for ERP-115730-05 is either denied or abandoned, then VA must obtain reauthorization of the recently expired ERP-115730-003 or obtain a new authorization; whichever is deemed appropriate by the SJRWMD. Phase 2 construction details would need to incorporate the previously authorized impacts and mitigation authorized under USACE Permit SAJ-2006-02208 (SP-BAL); deviations would require a permit modification. In addition, a National Pollution Discharge Elimination System (NPDES) Construction Generic Permit will be required from the FDEP prior to construction.

1.3.4 Summary of Remaining Mitigation Requirements

The Phase 2 expansion area will impact approximately 11.87 acres of jurisdictional wetlands. These unavoidable wetland impacts were anticipated during construction of the Phase 2 cemetery (based on the 2007 Master Plan), and the requisite compensatory mitigation requirements were reviewed and approved by USACE and SJRWMD. Although none of the proposed Phase 2 cemetery has been constructed to date, a total of 64.69 acres of preservation (58.53 acres of wetlands and 6.16 acres of uplands) have been preserved under conservation easement (accounting for Phase 1 and anticipated Phase 2 development). Additional mitigation actions will need to be completed in order to implement the Proposed Action. These actions are estimated to include the creation of approximately 27.97 acres of wetlands and 2.77 acres of upland preservation as defined by the approved mitigation plans within ERP-115730-003 and SAJ-2006-02208 (SP-BAL) (Figure 4). These requirements will be formalized through construction permits and were estimated using previously approved UMAM scores. The configuration and mitigation approach shown on Figure 4 meets the intent of the conceptual permit but is subject to the review and approval of the SJRWMD when construction drawings are submitted for their approval. Subsequent to the implementation of the wetland creation and wetland enhancement components of the mitigation plan, monitoring will be required to demonstrate permit compliance.

1.4 Decision Making

This SEA has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with VA’s Proposed Action to construct and operate a portion of the Phase 2 expansion within the Jacksonville National Cemetery, according to the design specified in the 2007 Master Plan and associated federal (USACE) and state (SJRWMD) permits. This SEA
tiers to and updates the analyses and findings of VA’s 2006 Final EA for the initial siting, construction, and operation of the Jacksonville National Cemetery (VA, 2006). This SEA also includes the necessary analysis to address and support decision making for the site-specific design of the proposed Phase 2 expansion.

VA, as a federal agency, is required to incorporate environmental considerations into its decision-making process for the actions it proposes to undertake. This is done according to the regulations and guidance identified in this Section 1.0. As such, this SEA:

- Informs the public of the possible environmental impacts of the Proposed Action and its considered alternatives, as well as methods to reduce these impacts;
- Provides for public, state, inter-agency, and tribal input into VA’s planning and evaluation;
- Documents the NEPA process; and
- Supports informed decision-making by the federal government.

As the decision document for this proposed federal undertaking, this SEA also identifies the actions to which VA would commit to minimize environmental effects, as required under NEPA, its implementing regulations from CEQ (40 CFR 1500–1508) and VA (38 CFR 26), and VA’s NEPA guidance (VA, 2010). The decision to be made is whether—having considered the potential physical, environmental, cultural, and socioeconomic effects—VA should implement the Proposed Action including, as appropriate, measures to reduce adverse effects.
2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

NEPA, and the regulations of CEQ and VA for implementing NEPA, require all reasonable alternatives to be rigorously explored and objectively evaluated. Accordingly, this chapter summarizes the process used to develop alternatives and provides a description of the subsequently selected Proposed Action and its alternatives, as well as alternatives considered but ultimately eliminated from further analysis, and the reasons for elimination.

2.1 Development of Alternatives

The alternatives evaluated in this SEA are the Proposed Action and No Action alternatives. The Proposed Action is described in detail in the following section. The No Action alternative serves as the baseline for determining the significance of potential effects of the Proposed Action in relation to existing conditions.

2.2 Proposed Action

Under the Proposed Action, a portion of the Phase 2 expansion identified in the 2007 Master Plan (Figure 2) would be located within an approximately 50-acre area within the central portion of the Jacksonville National Cemetery (Figure 3). The expansion would provide casket, columbarium, and in-ground cremain sites; a roadway extension connecting the new and existing burial areas; irrigation; landscaping; and a stormwater retention basin to manage stormwater runoff generated from the newly developed areas. The development would be designed according to the 2007 Master Plan, avoid preservation areas identified in the currently authorized federal (USACE) and state (SJRWMD) permits, and include mitigation identified in the aforementioned permits (Figure 4).

The following outline identifies specific major elements of the Proposed Action:

- **Grading and filling** – The elevation of selected portions of the proposed Phase 2 expansion area would be raised using suitable excess soil obtained from creating the enlarged stormwater retention pond, with additional fill material acquired from an off-site borrow area. The graded, finished elevation would prevent flooding of burial areas and roadways and allow runoff to be directed toward the existing and newly expanded stormwater retention basins.

- **Columbarium** – New columbarium sites would be graded and have multiple sections 4 to 5 inches high (approximately 7-8 feet high) with a border of landscaped grounds. Columbarium would have capacity for approximately 5,560 niches.

- **In-Ground Burial Sections** – New burial sections would provide capacity for approximately 18,460 in-ground burials, including 8,050 pre-placed crypts, sections for in-ground cremains, and 250 traditional burial sites. Burial sections for in-ground cremains and pre-placed crypts would be graded and separated from other interment areas using landscaped vegetation.

- **Roadways** – A new roadway would be constructed to connect the new burial sections to the northeastern end of the existing Phase 1 roadway. The new roadway would be graded, compacted, and paved with asphalt. The roadway would be approximately 20-24 feet wide. No other modifications to existing roadways would be required. No new parking areas would be created, as visitors would be allowed to park on the roadway shoulders adjacent to burial sections.

- **Stormwater Management** – The approximately 6.5-acre Phase 1 stormwater retention basin, located within the northern portion of the Phase 2 expansion area, would be enlarged by approximately 3 acres. The expanded basin would have sufficient capacity to contain stormwater runoff from new impervious surfaces, primarily associated with the new roadway. The water level would continue to be balanced with the other existing stormwater basin through underground piping.
- **Irrigation and Landscaping** – The current on-site irrigation utility piping would be extended, and new piping installed, to support new landscaping in the Phase 2 expansion area. Irrigation water would be supplied by surface water obtained from existing and the newly expanded stormwater retention basins. Based on the 2007 Master Plan, the expansion area includes approximately 20 acres of irrigated landscaping. The estimated watering needs for this area are approximately 110,000 gallons per day (GPD) at peak season and 3.5 million gallons (MG) annually.

The new landscaping would provide privacy and in a manner that is consistent with the existing cemetery. Planted and landscaped vegetation would primarily include grasses (Celebration Bermuda Grass) and ornamental shrubs/trees (Southern live oak, elm, saw palmetto, Walters viburnum, *Loropetalum*).

- As part of the design process, VA would also comply to the maximum extent technically feasible with the U.S. Environmental Protection Agency’s (USEPA) Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act (EISA) (USEPA, 2007), as well as the FDEP NPDES Construction Generic Permit and Stormwater Pollution Prevention Plan (SWPPP) requirements.

In addition to these infrastructure elements, the Proposed Action includes the following commitments to avoid impacts to environmentally sensitive areas and, when not feasible, to mitigate for those impacts.

- **Avoidance of Environmentally Sensitive Areas** – the Proposed Action will avoid development within the existing preservation area (established during the Phase 1B development) located along the eastern boundary of the proposed Phase 2 expansion area (see Figure 4). The limits of the proposed Phase 2 expansion area will be outside of the buffer zone present along the western and northern boundaries of the preservation area.

- **Mitigation for Unavoidable Impacts to Environmentally Sensitive Areas** – The Proposed Action will require development of the following surface waters and wetlands within the Phase 2 boundary (Figure 4).
  - Approximately 0.33 acre of surface water would be impacted by development. The impacted surface water areas consist of two drainage ditches: (1) the surface water located between the Phase 1 northeastern stormwater retention basin and the existing Phase 1B preservation area; and (2) the surface water body located along the western boundary of the Phase 2 development area.
  - Approximately 11.87 acres of wetlands would be impacted by development. These wetlands include mixed hardwoods in the western portion of the Phase 2 development area and improved pastures in the southwestern and western portions of the Phase 2 area. In addition, wetlands would be impacted to expand the northern edge of the existing 6.5-acre Phase 1 stormwater retention basin, consistent with the 2007 Master Plan design.
  - As described in the aforementioned USACE and SRJWMD permits (see Sections 1.3.1 and 1.3.2), VA will mitigate for these impacts by creating approximately 27.97 acres of wetland on VA’s property located south of Lannie Road and 2.77 acres of upland preservation; these actions are defined in the approved mitigation plans within ERP-115730-003 and SAJ-2006-02208 (SP-BAL). The configuration and mitigation approach shown on Figure 4 meets the intent of the conceptual permit but is subject to the review and approval of the SJRWMD when construction drawings are submitted for their approval. Following completion of the wetland creation and wetland enhancement components of the mitigation plans, VA will conduct the monitoring required to demonstrate permit compliance.

- **Avoidance and Protection of Listed Species** – Prior to construction, surveys for gopher tortoises and eastern indigo snakes would be conducted. If present within the development boundary, individual gopher tortoises would be relocated to an approved off-site recipient location. The USFWS Standard Protection Measures for the Eastern Indigo Snake would be performed during construction.
The Proposed Action would extend the longevity of the Jacksonville National Cemetery and accommodate long-term burial needs of future generations of Veterans and their families residing in northern Florida. Therefore, the Proposed Action would meet the purpose and need for action. It is consistent with the 2007 Master Plan and existing federal and state permits.

2.3 No Action Alternative

The No Action alternative serves as a benchmark against which the effects of the Proposed Action can be evaluated, as required under the CEQ Regulations (40 CFR 1502.14). For this project, No Action is defined as not implementing the Proposed Action.

The No Action alternative would challenge NCA’s goal of providing eligible Veterans and their family members with reasonable access to VA burial options in northern Florida, and therefore, would not meet the purpose of and need for the action.

Under the No Action alternative, the capacity of the Jacksonville National Cemetery would not be increased beyond the Phase 1 cemetery. Due to gravesite depletion, long-term reasonable access to burial benefits at the Jacksonville National Cemetery would not be provided to the estimated 400,000 Veterans and their families residing in northern Florida. Veterans who chose burial benefits at a National Cemetery would be required to select a National Cemetery located more than 75 miles from northern Florida. The nearest National Cemeteries with available capacity include Cape Canaveral National Cemetery in Titusville, approximately 150 miles to the south; Florida National Cemetery in Bushnell, 160 miles to the south; Tallahassee National Cemetery, 175 miles to the west; and South Florida National Cemetery in Lake Worth, 310 miles to the south.

Requiring travel of more than 75 miles is considered an undue burden to obtain burial benefits and would also create a hardship for the survivors of deceased Veterans wanting to attend funerals and visit gravesites. This burden could cause eligible Veterans and their family members to resort to private burials, depriving them of the honor and privilege bestowed upon them by a grateful nation for their service to their country. Therefore, the No Action alternative would not meet the purpose and need for action, the distribution of open National Cemeteries in the region would become unequal, and it would not comply with the Service Members Civil Relief Act.

2.4 Alternatives Identified but not Evaluated in Detail

The 2007 Master Plan and aforementioned federal and state permits identify the boundaries where future development is permitted within the Phase 2 development area, which covers an approximately 200-acre area. Therefore, alternatives to the Proposed Action were limited, both in size and location, to this previously permitted Phase 2 development area. Based on the 2007 Master Plan, VA considered developing all areas within the permitted Phase 2 development as part of a single expansion. However, this alternative was not carried forward because it was both financially infeasible and would provide more capacity than anticipated to be needed in a 10-year period. Accordingly, this “full Phase 2 build-out” is not evaluated in detail in this SEA.

Under the Proposed Action, approximately 50 acres would be developed within the permitted Phase 2 development area. During preliminary design meetings for this 50-acre expansion, VA considered minor adjustments in the alignment of physical infrastructure, such as the shape of burial areas and the roadway around those areas. However, these minor design alternatives result in the same degree and intensity of impacts as the Proposed Action. Therefore, these minor design alternatives are not evaluated in detail in this SEA.
3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section includes a description of existing conditions at the Jacksonville National Cemetery and a detailed assessment of the potential effects of the Proposed Action and No Action alternatives on each environmental resource. The assessment considered the analyses and findings presented in the Final EA for the initial site acquisition (VA, 2006); existing federal and state permits; requirements for other permits that would be acquired; as well as on-site surveys of wetlands, biological resources, and soils conducted in June 2017 and July 2017.

3.1 Aesthetics

3.1.1 Existing Environment

3.1.1.1 Within the Jacksonville National Cemetery

Overall, the area surrounding the Jacksonville National Cemetery is rural, as is much of north Jacksonville (Figure 1). Lannie Road is a two-lane, curbless road that bisects the 529-acre Jacksonville National Cemetery property to the north and south.

The portion of the property north of Lannie Road includes the Phase 1 cemetery, the Phase 2 development area, leased pasture for cattle grazing, and preservation areas surrounded by a split-rail fence (where development and grazing are prohibited). Within the 200-acre Phase 2 development boundary, but outside of the 50-acre proposed Phase 2 expansion area, is a model airplane flying field managed by the Gateway Radio Control Club under a lease agreement with VA. The model airplane flying field includes a roofed pavilion with picnic tables, a club house, and a 450-foot paved landing strip. Users fly model airplanes and helicopters over the surrounding area, but avoid flying aircrafts above the Phase 1 cemetery. A gravel access road extends from Lannie Road to the model airplane flying field pavilion.

The portion of the property south of Lannie Road includes leased cattle grazing pasture and additional mitigation areas.

The Jacksonville National Cemetery and the proposed Phase 2 expansion area are not otherwise visible beyond the portion of Lannie Road that bisects the property. Viewed from Lannie Road, the proposed Phase 2 expansion area appears as a relatively flat, grass-covered field and forest, with no other distinguishing features. The view from Lannie Road into the northern portion of the property is further obscured by a row of mature trees along on the cemetery boundary.

3.1.1.2 Surrounding the Jacksonville National Cemetery

Low-density residential developments are present southwest and east of the Jacksonville National Cemetery property. The property is otherwise bordered by wooded undeveloped areas to the north and south. Undeveloped land is also present within the 774-acre Northeast Florida Wetland Mitigation Bank, which is divided into two separate areas that are located northwest or northeast of the property.

Timucuan National Ecological and Historic Preserve is located to the northeast of the property. The 46,000-acre preserve is managed by the National Park Service in partnership with state, city, and private landowners. It extends along the coast north of the St. Johns River and along the Nassau River. It comprises many important historic sites and natural areas, many of them wetlands.

The Montgomery Correctional Center (MCC), one of the three Jacksonville Sheriff's Office Department of Corrections correctional facilities, is located to the west of the property, on the north side of Lannie Road. The MCC is a secure facility for convicts serving sentences of up to one year. It has a capacity of approximately 650 inmates. Another correctional facility, the Tiger Serious Habitual Offender Program (SHOP), is adjacent to the MCC and the cemetery. SHOP is a secure, 20-bed facility for high-risk male youths. The SHOP is fenced and similar in appearance to the MCC.
3.1.2 Environmental Consequences

3.1.2.1 Proposed Action

Construction. The Proposed Action would be developed within the approximately 50-acre expansion area in the central portion of the Jacksonville National Cemetery. Prior to construction, cattle grazing would cease, and the agricultural appearance of the site would be converted to an active construction zone (ultimately converted to a landscaped National Cemetery).

Heavy equipment would be used for land clearing, filling, and grading, and for construction of burial sections, roadways, and the stormwater retention pond. The heavy equipment phase of construction would not necessarily be over one continuous period. The presence of heavy equipment and unfinished stages of site preparation and construction would temporarily impact the visual quality of the site for visitors at the Phase 1 cemetery, particularly from the cortege assembly area and the flag pole assembly area, which has a partial view of the proposed expansion area. To minimize these impacts, temporary privacy fencing or fabric would be installed between the Phase 1 cemetery and the expansion area. This would limit the visual impact of construction activities on the solemnity of ongoing memorial services and associated activities at the Phase 1 cemetery. To further minimize aesthetic impacts to on-going memorial services at the Phase 1 cemetery, construction vehicles would access to the expansion area construction zone from the gravel access road located east of the main entrance along Lannie Road. Additionally, the southern tree-lined border present along Lannie Road would be retained, further limiting the view of the construction area from vehicles traveling on Lannie Road.

Land clearing, filling, and grading activities would expose unstabilized soils (without a vegetative cover) and increase the potential for fugitive dust generation to the air and tracking dirt/debris on Lannie Road, which can lead to nuisance concerns about the impact that VA’s construction activities are causing to the appearance of the local roadways. The potential for fugitive dust emissions and roadway effects would be limited by implementing construction best management practices (BMPs) for dust control during construction activities, including but not limited to water sprays, covering haul trucks with tarps, and limiting the speed of vehicles entering and exiting the construction site.

Therefore, considering the constructed viewshed obstructions, retention of existing tree-lined borders, and incorporation of construction BMPs, construction would have a short-term, minor, and less-than-significant adverse impact on aesthetics.

These management practices to limit and further reduce potential construction-related impacts are summarized in Section 5.0 of this SEA.

Operation. Operation of the cemetery expansion would provide direct, long-term, less-than-significant beneficial aesthetic effects by expanding the Jacksonville National Cemetery’s park-like setting, protecting the designated preservation areas, and retaining the existing vegetated border on the southern border of the expansion area along Lannie Road. The design of the expansion area would be compatible with the surrounding landscape, graded in concert with the surrounding topography, and aesthetically consistent with existing operational areas within the Jacksonville National Cemetery.

Operations within the expansion area would include routine and scheduled professional maintenance to ensure the upkeep of the park-like landscaping and associated physical infrastructure (e.g. roadway, interment areas, stormwater retention basin). Maintenance activities (mowing, cleaning of memorials) would be scheduled to minimize disruptions to memorial services. No new night-time lighting would be required.

Therefore, operation of the Proposed Action would be anticipated to have an overall long-term, direct, less-than-significant beneficial impact on aesthetics.

Management practices to maintain the beneficial impact are summarized in Section 5.0 in this SEA.
3.1.2.2 **No Action**

Under the No Action alternative, no changes to the current aesthetic or visual character of the proposed 50-acre expansion area would occur; it would remain as a grass-covered pasture for cattle grazing. Likewise, no other aesthetic changes would occur elsewhere at the Jacksonville National Cemetery. Although the less-than-significant adverse impacts associated with construction of the Proposed Action would be avoided, the beneficial aesthetic impacts associated with operations would not occur. Therefore, the No Action alternative would result in an overall long-term, direct, less-than-significant adverse effect on aesthetics.

3.2 **Air Quality**

3.2.1 **Regional Climate**

Weather and climate are important influences on air resources. The Jacksonville National Cemetery is located in Duval County, approximately 16 miles west of the Atlantic Ocean and at an elevation of approximately 16- to 18-feet above mean sea level. According to the Koppen Climate Classification System, Duval County is located in the Humid Subtropical Climate (Sustainability Council, 2013). Local climatological data station details provided from the Jacksonville International Airport indicate that the average summer temperature is approximately 81.9 degrees Fahrenheit (°F) and in winter is 53.4 °F (data from 2000-2017) (National Oceanic and Atmospheric Administration [NOAA], 2017). The driest month in Jacksonville is November with 2.34 inches of precipitation, and with 7.90 inches September is the wettest month. The annual average precipitation is 49.47 inches (data from 2000-2017). Annual average temperature is 68.7 °F (NOAA, 2017).

3.2.2 **Air Quality Standards**

*National Ambient Air Quality Standards.* The Clean Air Act (CAA) and its subsequent amendments require the USEPA to establish the National Ambient Air Quality Standards (NAAQS) for pollutants that may endanger public health or welfare. The USEPA has promulgated primary and secondary NAAQS for six criteria pollutants including carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), lead (Pb), particulate matter (PM; particulate matter sized 10 microns or less [PM₁₀] and particulate matter sized 2.5 microns or less [PM₂.₅]), and sulfur dioxide (SO₂). Primary standards set limits to protect public health, and secondary standards set limits to protect public welfare. The CAA also gives the authority to states to establish air quality rules and regulations stricter than the federal standards. Florida has adopted the NAAQS, and the FDEP regulates air quality for Florida.

The General Conformity Rule (CAA Section 176(c)(4)) applies to all federal actions in nonattainment or maintenance areas. This rule requires that any federal action meet the requirements of a State Implementation Plan (SIP) or Federal Implementation Plan. More specifically, CAA conformity is ensured when a federal action would not cause a new violation of the NAAQS; contribute to an increase in the frequency or severity of violations of NAAQS; or delay the timely attainment of any NAAQS, interim progress milestones, or other milestones toward achieving compliance with the NAAQS. Areas that comply with the NAAQS are designated “attainment” areas by the USEPA, while areas where the standards are not met are designated as “non-attainment” areas. Duval County is currently classified as an attainment area for all criteria pollutants (USEPA, 2017).

*Greenhouse Gas Emissions.* Greenhouse gases (GHGs) are gaseous emissions that trap heat in the atmosphere. These emissions occur from natural processes and human activities. The most common GHGs emitted from human activities include carbon dioxide (CO₂), methane, and nitrous oxide. GHGs are primarily produced by the burning of fossil fuels and through industrial and biological processes. On September 22, 2009, the USEPA issued a final rule for mandatory GHG reporting from large GHG emissions sources in the United States. The purpose of the rule is to collect comprehensive and accurate data on CO₂ and other GHG emissions that can be used to inform future policy decisions. In general, the threshold for reporting is 25,000 metric tons or more of CO₂ equivalent GHG emissions per year; however, that excludes mobile source emissions.
3.2.3 Existing Emissions Sources

The Jacksonville National Cemetery does not have any regulated emission sources. Current emission sources include one diesel- and one gasoline-fueled generator for emergency backup electrical power and maintenance equipment (e.g. backhoes, mowers, utility vehicles). Electrical power to the existing structures is supplied by the local utility service. No large sources of regulated air emissions exist on the property; therefore, VA, as the owner of the property, is not required to have a Title V operating permit. There are no regulated stationary air pollution emission sources within 1 mile of the Jacksonville National Cemetery (NEPAssist, 2017).

3.2.4 Sensitive Receptors

CEQ’s NEPA regulations require evaluation of the degree to which the proposed action affects public health (40 CFR 1508.27). Children, elderly people, and people with illnesses are especially sensitive to the effects of air pollutants; therefore, hospitals, schools, convalescent facilities, and residential areas are considered to be sensitive receptors for air quality impacts, particularly when located within 1 mile from the emissions source. The nearest residential area is located approximately 0.2 miles east of the proposed expansion area. No schools, hospitals, or religious institutions are located within one mile of the Jacksonville National Cemetery (NEPAssist, 2017).

3.2.5 Environmental Consequences

3.2.5.1 Proposed Action

Construction. Construction of the expansion area would require approximately 18 months of earthwork activities associated with land clearing, filling, and grading, and construction of interment areas, roadways, stormwater retention basin, and associated infrastructure improvements. Particulates are the main air pollutant of concern from construction projects. Construction activities would generate both coarse and fine particulate emissions primarily during land clearing, filling, and grading. The amount of particulate emissions can be estimated from the amount of ground surface exposed, the type and intensity of activity, soil type and conditions, wind speed, and dust control measures used.

Total suspended particulates were calculated using the emission factor for heavy construction activity operations from “AP-42, Compilation for Air Pollutant Emission Factors” (USEPA, 1995), to provide a conservative estimate of PM emissions. Estimates are shown in Table 1.

Table 1. Estimate of Particulate Emissions during Construction of the Proposed Action

<table>
<thead>
<tr>
<th>Total Area (acres)</th>
<th>Exposed Area (acres)</th>
<th>Construction Duration (months)</th>
<th>Emission Factor (tons/acre/month)</th>
<th>Control Efficiency (%)</th>
<th>Total Suspended Particulate Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>50</td>
<td>18</td>
<td>1.2</td>
<td>80</td>
<td>144</td>
</tr>
</tbody>
</table>

\[ ^{1} \text{Emission factor for “Heavy Construction Operations” (USEPA, 1995)} \]

Non-road construction vehicles would emit criteria pollutants during construction of the expansion. Criteria pollutant emissions from construction equipment were calculated assuming the use of six backhoes, two graders, and two bulldozers operating for approximately eight hours per day for a total of 392 weekdays. Emissions were estimated using “Off-Road – Model Mobile Source Emission Factors,” from the California South Coast Air Quality Management District (SCAQMD, 2017) because Florida and federal USEPA emission factors are not available. Tables 2 through 4 show estimated annual emissions, projected equipment operating hours, and equipment emission factors, while Table 5 shows the total emissions for the 18-month construction period. Emissions of sulfur oxides (SOx), nitrous oxides (NOx), volatile organic compounds (VOCs), carbon monoxide (CO), and lead are below de minimis thresholds; therefore, a General Conformity Determination is not required.
Table 2. Estimate of Annual Non-Road Emissions of Criteria Pollutants during Construction of the Proposed Action

<table>
<thead>
<tr>
<th>Criteria Pollutant(^1)</th>
<th>SO(_x)</th>
<th>NO(_x)</th>
<th>VOCs(^3)</th>
<th>CO</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions (tons/year)(^2)</td>
<td>0.0183</td>
<td>10.3377</td>
<td>1.4398</td>
<td>7.466</td>
<td>N/A(^4)</td>
</tr>
<tr>
<td>de minimis level (tons/year)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>25</td>
</tr>
</tbody>
</table>

\(^1\) PM emissions from non-road construction vehicles are included in the general construction emissions factor applied in the estimates in Table 3, and therefore non-road emissions of PM are not included in this table.


\(^3\) VOCs are assumed to be equivalent to Reactive Organic Gases (ROG) for calculating non-road construction equipment emissions.

\(^4\) Lead emissions were not calculated because only non-leaded gasoline would be used to fuel construction vehicles.

Table 3. Estimated Total Operational Hours for Construction Equipment

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Number</th>
<th>Hours/Day</th>
<th>Total Days</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grader</td>
<td>2</td>
<td>8</td>
<td>392</td>
<td>6,272</td>
</tr>
<tr>
<td>Tractors/Loaders/Backhoes</td>
<td>6</td>
<td>8</td>
<td>392</td>
<td>18,816</td>
</tr>
<tr>
<td>Rubber Tired Dozers</td>
<td>2</td>
<td>8</td>
<td>392</td>
<td>6,272</td>
</tr>
</tbody>
</table>

Table 4. SCAB Fleet Average Emission Factors (Diesel)

<table>
<thead>
<tr>
<th>Equipment(^1) and Chemical</th>
<th>ROG (lbs/hr)</th>
<th>CO (lbs/hr)</th>
<th>NOx (lbs/hr)</th>
<th>SOx (lbs/hr)</th>
<th>PM(^2) (lbs/hr)</th>
<th>CO(_2) (lbs/hr)</th>
<th>CH(_4) (lbs/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graders</td>
<td>0.1049</td>
<td>0.5812</td>
<td>0.7217</td>
<td>0.0015</td>
<td>0.0355</td>
<td>133.0000</td>
<td>0.0095</td>
</tr>
<tr>
<td>Tractors/Loaders/Backhoes</td>
<td>0.0513</td>
<td>0.3647</td>
<td>0.3331</td>
<td>0.0008</td>
<td>0.0189</td>
<td>66.7972</td>
<td>0.0046</td>
</tr>
<tr>
<td>Rubber Tired Dozers</td>
<td>0.2343</td>
<td>0.8819</td>
<td>1.8194</td>
<td>0.0025</td>
<td>0.0737</td>
<td>239.0872</td>
<td>0.0211</td>
</tr>
</tbody>
</table>

\(^1\) Composite emission factors used; emission factors for year 2018 (SCAQMD, 2017).

\(^2\) Combined PM\(_{2.5}\) and PM\(_{10}\)

Table 5. Total Criteria Pollutant Emissions from Non-Road Construction Vehicles

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Total Hours</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Hours</td>
<td>ROG (total pounds)</td>
</tr>
<tr>
<td>Graders</td>
<td>6,272</td>
<td>658.21</td>
</tr>
<tr>
<td>Tractors/Loaders/Backhoes</td>
<td>18,816</td>
<td>964.78</td>
</tr>
<tr>
<td>Rubber Tired Dozers</td>
<td>6,272</td>
<td>1,469.55</td>
</tr>
</tbody>
</table>

The Proposed Action would require raising the existing ground elevation to create in-ground burial areas (ensuring they are above the seasonal high groundwater table) in selected areas of the expansion area. Suitable excess soil obtained from creating the expanded stormwater retention basin would be used as the primary source of fill material, with additional fill material acquired from an off-site borrow area.

Direct, short-term, less-than-significant adverse air quality impacts associated with construction would be further minimized through dust control measures, scheduling construction outside of weather advisory events, limiting engine idling to less than 5 minutes, and limiting vehicle speed limits within the construction area.
Additionally, as recommended by USEPA in correspondence dated February 6, 2019 (provided in Appendix B), to the extent practicable the construction contractor should implement diesel emission controls for off-road and on-road construction equipment described by the Northeast Diesel Collaborative Model Contract Specification dated December 2010.

**Operation.** Operational sources of air emissions would include vehicles visiting the new expansion area and maintenance vehicles (mowers, backhoes, etc.). To minimize air quality impacts, cemetery maintenance equipment would be kept in good working order.

The Proposed Action would result in a negligible increase in visitor vehicle traffic and maintenance vehicle operations. However, by extending the longevity of the Jacksonville National Cemetery, visitors and families would not be required to travel longer distances to reach other National Cemeteries outside of the northern Florida region—as they otherwise would under the No Action alternative. Therefore, operation of the Proposed Action would result in long-term, less-than-significant beneficial impacts on air quality.

These management practices to limit and further reduce potential construction and operational impacts are summarized in Section 5.0 of this SEA.

### 3.2.5.2 No Action

Under the No Action alternative, there would be no short-term changes in air quality compared to current conditions. However, once the burial capacity of the Phase 1 cemetery is reached, vehicle emissions from visitors and families would increase, as these groups would be required to travel beyond the northern Florida region to reach another National Cemetery in Florida. This increase in emissions would be considered to have a long-term, negligible adverse impact on air quality.

### 3.3 Cultural Resources

#### 3.3.1 Existing Environment

The proposed expansion area has been identified as the Area of Potential Effect (APE), which is the geographical area or areas within which an undertaking may cause changes to the character or use of historic properties.

Cultural resources are generally defined as the physical remains of a people’s way of life and include historical architecture and archaeology. The baseline age established by the National Historic Preservation Act (NHPA) for historic resources is 50 years of age or older. Although the Jacksonville National Cemetery is not 50 years of age, the National Park Service (NPS) has determined that all National Cemeteries are exceptionally significant places that are eligible for listing in the National Register of Historic Places (NRHP). However, the NPS has provided guidance that unimproved portions of a National Cemetery that have only been set aside for future use and not ready to receive burials are not eligible for the NRHP.

There are no structures within the proposed 50-acre expansion area; outside of the expansion area and within the Phase 2 boundary, the only structures include the Model Airplane Flying facility, a playground/softball field, and an unoccupied mobile home. None of these structures present any characteristics that would potentially qualify it for listing in the NRHP.

During the 2006 Final EA process that evaluated the entire property (including the expansion area), the Florida Department of Historical Resources (FDHR) State Historic Preservation Office (SHPO) confirmed in a letter dated May 27, 2005, that no known historic sites exist on the property. This letter also stipulated that a cultural resources assessment survey was required of the entire property. In 2006, two separate studies within the property were conducted by two firms on behalf of VA. The first study was performed by ESI, who conducted a preliminary cultural resources evaluation, including 19 shovel tests at the property in January 2006. No cultural material was found. The second study was performed by Earth Tech, Inc., who conducted archaeological studies within the entire property. No significant cultural resources were identified; and this was concurred by the FDHR in a letter dated March 13, 2006. However, FDHR stated that historical or pre-historical artifacts or unmarked human remains might be uncovered, and that VA would need to make contingency plans should any artifacts or remains be uncovered during construction.
During the 2006 Final EA, VA contacted the Florida Governor’s Council on Indian Affairs. It does not appear that a response was received. However, individual federally recognized Native American Tribes were not contacted during the 2006 Final EA to solicit input regarding religious or cultural significance at the property.

Based on the prior analyses, VA has concluded that the current Proposed Action for the Phase 2 expansion should have no adverse effect on archaeological or historic properties. On April 27, 2018, VA mailed letters to request concurrence or input from the SHPO and two federally-recognized Native American tribes, the Miccosukce Tribe of Indians and the Seminole Tribe of Florida, as required by NEPA, NHPA, NAGPRA, and Executive Order (EO) 13175.

On May 18, 2018, the SHPO concurred in writing that the Proposed Action should have no adverse effect on historic properties, but to contact the SHPO should prehistoric or historic artifacts or remain be inadvertently uncovered during ground disturbing activities. A copy of the letter is provided in Appendix B. On June 5, 2018, the Seminole Tribe of Florida responded via email, stating that the Jacksonville National Cemetery is within their Area of Interest and requesting a copy of the prior Cultural Resource Assessment surveys conducted as part of previous development phases at the Jacksonville National Cemetery (see Appendix B). On August 14, 2018, VA mailed the requested information to the Seminole Tribe of Florida. On January 8, 2018, the Seminole Tribe of Florida responded via email, stating they had no objections to the project and should be notified in the event of an inadvertent discovery of archaeological artifacts (a copy of the correspondence is provided in Appendix B).

### 3.3.2 Environmental Consequences

The Section 106 Criteria for Adverse Effect of the National Historic Preservation Act (NHPA) (36 CFR 800.5) defines an undertaking (action) as having an adverse effect on historic properties if the undertaking would alter, directly or indirectly, any of the characteristics that qualify a property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The analysis considers potential effects to cultural resources located in and within view of the project area.

#### 3.3.2.1 Proposed Action

**Construction.** Based on the prior cultural resources investigations, no archaeological sites or historic properties are known to exist at the Jacksonville National Cemetery. As requested by the SHPO, if prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, VA shall cease all activities involving subsurface disturbance in the vicinity of the discovery and contact the FDHR and the Seminole Tribe of Florida. Project activities would not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during construction, all work shall stop immediately, and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

**Operation.** Due to the need to raise the elevation of the existing grade using fill, excavation for individual burial sites does not pose a potential for inadvertent discovery of human remains or cultural resources. Accordingly, the likelihood of discovery is considered negligible, and therefore no potential impacts to cultural resources are anticipated during operation of the Proposed Action.

This management practice is summarized in Section 5.0 of this SEA.

#### 3.3.2.2 No Action

No changes to the Proposed Action areas would occur from implementation of the No Action alternative; therefore, no impacts to cultural resources would occur.
3.4 Geology, Topography, and Soils

3.4.1 Existing Environment

Geology

The geological setting of the Jacksonville National Cemetery was previously described in the 2006 Final EA (VA, 2006) and remains unchanged for this analysis. In general, bedrock is encountered approximately 400 feet below sea level in the Ocala Limestone. This SEA includes additional context regarding sinkholes. Sinkholes are common where the subsurface rock formations comprise limestone, carbonate rock, or other surface that can be dissolved by groundwater. In Florida, due to its limestone and carbonate rock subsurface, sinkholes are very common. According to the United States Geological Survey (USGS, 1985), the entire cemetery lies within “Area 4” (Figure 5), which is defined by very few sinkholes due to the cover over bedrock being up to 200 feet thick. However, large diameter, deep sinkholes do occur. Cover-collapse sinkholes are most prevalent in this area; they may develop abruptly (over a period of hours) and cause catastrophic damages. They occur where the covering sediments contain a significant amount of clay. Over time, surface drainage, erosion, and deposition of the sinkhole occur, transitioning the area into a shallower bowl-shaped depression (USGS, 2013).

While sinkholes do occur in Duval County, it is not an area of high sinkhole activity as compared to other counties within Florida (Figure 5). The nearest recorded sinkhole is within the Anheuser-Busch property located 9 miles southeast of the Jacksonville National Cemetery. There are no known sinkholes within the proposed expansion area or immediate vicinity, and no evidence of suspected sinkhole activity, either relict or current, has been detected during preliminary geotechnical investigations.

Topography

The surficial topography of the proposed expansion area is generally flat with a very slight slope downward to the southwest corner, near Lannie Road, and toward the southeast corner of the expansion area. This is evident based on the eastward flow of water in a drainage canal present along the southern border of the expansion area, adjacent to Lannie Road. The elevation of the proposed expansion area ranges from approximately 15 to 18 feet above mean sea level, with the higher elevations near the northern portion of the site.

Slopes within the proposed expansion area were mapped based on USGS topographic data (Figure 6). Slope classes mapped on Figure 6 are 0-0.25%, 0.25-1%, 1-3%, 3-10%, and greater than 10% grade. Section 10.6 (Grading Guidelines) from the latest NCA Design Guidelines (NCA, 2017) has a requirement that interment areas be located on slopes of 15% or less. These same design guidelines establish a maximum slope of 25% for mowed slopes. There are no slopes within the proposed expansion area that are above a 15% grade.
Figure 5. Sinkhole Map
Soils

Soil information was obtained from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey for Duval County, Florida (USDA-NRCS, 1998). Based on the USDA-NRCS mapping, Mascotte Fine Sand; Surrency Loamy Fine Sand, depressional; and Pelham Fine Sand, depressional are classified as hydric soils (Figure 7). Pelham Fine Sand, while poorly drained, is not considered a hydric soil. Arredondo Fine Sand is a well-drained soil. A general description of each soil is presented below and summarized in Table 6.

- **Mascotte fine sand (38):** The Mascotte series consists of nearly level, poorly drained soils. It is found in flat woods. Parent material is sandy and loamy marine sediments. The soils are moderately slowly permeable and moderately permeable. The high-water table in Mascotte soils is generally at a depth of 6 to 18 inches below ground surface (bgs). Slopes are linear and range from 0 to 2 percent. Risk of corrosion is high for uncoated steel and concrete. Severe wetness is anticipated for shallow excavations, roads, lawns, and landscaping.

- **Pelham fine sand, 0 to 2% slopes (51):** The Pelham series consists of nearly level, poorly drained soils found on flats. Parent material is sandy and loamy marine sediments. The soils are moderately permeable and moderately slowly permeable. The high-water table in Pelham soils is at a depth of less than 12 inches on flats and at or above the surface in depressions. Slopes are linear and range from 0 to 2 percent. Risk of corrosion is high for uncoated steel and concrete. Severe wetness is anticipated for shallow excavations, roads, lawns, and landscaping.

- **Surrency loamy fine sand, depressional (66):** The Surrency series consists of nearly level, very poorly drained soils found in depressions. Parent material is sandy and loamy sediments. The soils are moderately permeable and moderately slowly permeable. The high-water table generally is at or above the soil surface for very long periods. Slopes are concave and range from 0 to 2 percent. Risk of corrosion is high for uncoated steel and concrete. Severe ponding is anticipated for shallow excavations, roads, lawns, and landscaping.

- **Arredondo Fine Sand, 0 to 5% slopes (82):** Arredondo soils are well-drained soils that are rapidly permeable in the thick sandy surface and subsurface layers. They occur on nearly level to strongly sloping uplands in the lower coastal plain. They formed in sandy and loamy marine deposits on the Ocala uplift. Large areas are cleared. Citrus, peanuts, watermelons, corn, and improved pasture are the principal crops. Natural vegetation consists of longleaf and loblolly pines; magnolia; red, live, laurel, and water oaks; hickory; sweetgum; and dogwood.

<table>
<thead>
<tr>
<th>Soil Map Unit</th>
<th>Soil Map Unit Name</th>
<th>Drainage Class</th>
<th>Hydric (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Mascotte Fine Sand</td>
<td>Poorly drained</td>
<td>Y</td>
</tr>
<tr>
<td>51</td>
<td>Pelham Fine Sand, 0 to 2% slopes</td>
<td>Poorly drained</td>
<td>N</td>
</tr>
<tr>
<td>66</td>
<td>Surrency Loamy Fine Sand, depressional</td>
<td>Very poorly drained</td>
<td>Y</td>
</tr>
<tr>
<td>82</td>
<td>Arredondo Fine Sand, 0 to 5% slopes</td>
<td>Well drained</td>
<td>N</td>
</tr>
</tbody>
</table>

In July 2017, a percolation test was performed at 3 of 10 planned locations within the proposed expansion area to determine the water absorption rate of the native soils. The percolation test results indicated that infiltration rates in Mascotte Fine Sand were 0.8 and 0.9 inches per hour (locations 8 and 10, respectively; these locations are near the drainage ditch in soils that are frequently saturated). The infiltration rate was significantly higher at 6.5 inches per hour at location 7, which is also a Mascotte Fine Sand but is located near the southeastern border of the site, away from routinely saturated areas. The remaining seven locations could not be tested because groundwater levels were at or above the ground surface (6-12 inches) from June through August 2017. The data suggest that ponding may occur during several months each year, and that fill material would be needed to prevent flooding in these areas.
Figure 6. Slope Analysis Map

Source: Slope was derived from FLIDAR mosaic (FWC, NWFWS, & NOAA) DEM from University of Florida’s GeoPlan and their Florida Geographic Data Library. This area is from NOAA’s FLIDAR Coastal MGR (Elevation Column NAVVEH) with a 9 meter cell size. Acquired in 2019.
Figure 7. Soil Map

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Soil Description</th>
<th>Drainage Class</th>
<th>Area (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Mastic Fine Sand, O to 1 Percent Slopes</td>
<td>Poorly Drained</td>
<td>23.95</td>
</tr>
<tr>
<td>58</td>
<td>Pelham Fine Sand, O to 1 Percent Slopes</td>
<td>Poorly Drained</td>
<td>49.21</td>
</tr>
<tr>
<td>66</td>
<td>Surrency Loamy Fine Sand, Depressional, O to 2 Percent Slopes</td>
<td>Very/Poorly Drained</td>
<td>6.75</td>
</tr>
<tr>
<td>86</td>
<td>Pelham Fine Sand, Depressional, O to 2 Percent Slopes</td>
<td>Poorly Drained</td>
<td>2.32</td>
</tr>
<tr>
<td>Blends</td>
<td></td>
<td></td>
<td>46.10</td>
</tr>
</tbody>
</table>
Prime Farmland

As indicated in the 2006 Final EA, there is no soil classified by the USDA NRCS as prime or unique farmland at the Jacksonville National Cemetery. Therefore, none of the soils are subject to the Farmland Protection Policy Act (FPPA) (7 USC 4201).

3.4.2 Environmental Consequences

3.4.2.1 Proposed Action

Construction and Operation.

Geology

Construction and operation of the Proposed Action is not anticipated to require or result in impacts to the underlying geology; bedrock is located several hundred feet below the ground surface. Site preparation for columbarium, burial sections, roadways, and stormwater management features would not require excavation to bedrock. No other construction activities would require exposure or contact with bedrock. Sinkholes are not anticipated to be encountered at the proposed expansion area. Therefore, the Proposed Action would have no impact on geology.

Topography

The Proposed Action would require raising the current ground elevation (through placement of fill material) to avoid flooding within the proposed burial areas and new roadway. The topography of the raised areas would still remain generally flat, with gentle grading to direct stormwater runoff from burial areas and roadways to the existing and newly expanded stormwater retention basins. None of the burial area slopes would exceed a 15% grade. Therefore, the overall change in topography due to the Proposed Action would be evident and permanent, but would be consistent with the Phase 1 cemetery and other generally flat surrounding areas. Therefore, the Proposed Action would have a long-term, minor, less-than-significant adverse impact on topography.

Soils

Construction would require impacting native soils by covering them with fill material (to raise the elevation of the expansion area). The fill material would then be graded to specified slopes per the engineering designs to facilitate construction of burial areas, roadways, and stormwater management systems. During the filling and grading phase, soils would be exposed and devoid of a vegetative cover. Exposed soils that have not been compacted or restabilized with vegetation or hardscape may be susceptible to erosion by wind and precipitation, potentially resulting in off-site discharges of sediment-laden runoff. Additionally, compaction can reduce the infiltration rate of the soil, leading to increased runoff potential and increased erosion of the downgradient surrounding soils. Construction vehicles and equipment could also accidentally release fuel and fluids that degrade soil quality at the site, if the release is not immediately remediated.

To minimize these impacts, a soil erosion and sedimentation control (SESC) plan would be prepared by the A/E firm and implemented by the construction contractor; the SESC Plan would incorporate BMPs to prevent and reduce soil erosion and sedimentation during construction, including the use of silt fencing, synthetic hay bales, specified loading and unloading areas, covering exposed soils during anticipated storm events, and revegetating soils with temporary and/or permanent non-invasive vegetation as soon as construction conditions allow. Construction activities would be phased to limit the area of exposed soil at any given time. Additionally, undisturbed natural buffers (vegetated soils) between the construction area and surface drainages would be maintained to the extent practicable. BMPs would also include measures to prevent dust emissions from disturbed soil and from construction vehicles leaving and entering the construction site, as described in Sections 3.1 and 3.2.

To minimize the potential impact from an accidental fuel release on soil quality, the construction contractor would implement spill and leak prevention and response procedures for construction equipment, including maintaining a complete spill kit at the project area. Additionally, construction equipment would be refueled in designated impervious areas.
Additionally, prior to construction, an application including a SWPPP would be prepared by VA (or its contractor) and submitted to FDEP to obtain an FDEP NPDES Construction Generic Permit. Once obtained, the construction contractor would implement the BMPs specified in the permit and also adhere to permit conditions specified in the existing SJRWMD ERP (Chapter 62-330, FAC).

During operation, soil impacts would be limited to excavation for individual burial sites in the designated burial sections. Excavated soil would be temporarily stockpiled and returned to the burial site from which it was obtained, and then sodded to prevent erosion. Any excess soil would be immediately removed from the interment area and stored in a designated bay located at the maintenance area, where these soils would not be subject to further erosion. Therefore, overall operational impacts on soils would be short-term, direct, and less-than-significantly adverse.

These management measures are summarized in Section 5 of this SEA.

3.4.2.2 No Action

No changes to the site would occur from implementation of the No Action alternative; therefore, no impacts to geology, topography, or soils would occur. Baseline conditions would remain, as described above.

3.5 Hydrology and Water Quality

This section describes existing surface water and groundwater conditions, and the potential impacts from the Proposed Action to these resources. A discussion of wetlands and floodplains is presented in Section 3.9.

Please refer to the discussion on the permit history and current permit-specified obligations and commitments associated with anticipated impacts to hydrology and water quality previously presented in Section 1.3. These permit-specified commitments are also reiterated in Section 5.2 in this SEA.

3.5.1 Existing Environment

The proposed expansion area is located within the Thomas Creek Reach drainage basin as defined by the FDEP (Figure 8). Thomas Creek outfalls into the Nassau River and St. Johns River before ultimately discharging into the Atlantic Ocean east of the Jacksonville National Cemetery.
Figure 8. Drainage Basin Map
3.5.1.1 Surface Water

Surface water features within the proposed expansion area include a man-made drainage ditch located in the northwest section, and a drainage ditch connecting the Phase 1 stormwater retention basin to the Phase 1B preservation area (Figure 4).

A man-made drainage canal is present along the southern border of the proposed expansion area, along Lannie Road. The canal drains to the east.

3.5.1.2 Groundwater

The 2006 Final EA presented a discussion of groundwater conditions at the Jacksonville National Cemetery (VA, 2006). That information remains unchanged for this SEA. In general, the depth to groundwater underlying the proposed expansion area varies seasonally, ranging from several feet below the ground surface, to 6-12 inches above ground surface (ponding conditions) for several weeks to months. This is also consistent with the depth to groundwater reported for USDA-mapped soils within the proposed Phase 2 expansion area (USDA-NRCS, 1998). For those soils mapped within the site that are classified as hydric per the Hydric Soils of Florida Handbook, Fourth Edition (FAESS, 2007), the depth to water table ranges from the ground surface to 6 inches. For those soils that are classified as non-hydric, the depth to water table ranges from 6 to 18 inches. The depth to restrictive features is greater than 80 inches below the ground surface.

In Duval County, the wettest times of the year are typically from January through March and from June through October. Though it tends to rain more in the summer than in the winter, higher rates of evaporation in warmer weather result in similar water table conditions during both seasons. November and December are typically the driest months of the year; the second driest are April and May (NOAA, 2017).

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

Surface Water

Construction. Construction will require the filling of the man-made ditches at the northwestern portion of the expansion area and connecting the existing 6.5-acre Phase 1 stormwater retention basin to the Phase 1 preservation area (Figure 4). The existing 6.5-acre Phase 1 stormwater retention basin is also proposed for expansion northward, increasing its area by approximately 3 acres. The direct impacts incurred from filling surface water drainage ditches would be mitigated through the creation of new wetlands and enhancement of wetland preservation areas, as previously described in Sections 1.3 and 2.2. The existing surface water drainage canal located along the southern border of the Phase 2 expansion area would not be filled or modified.

Other construction activities, particularly during land clearing, filling, and grading, will temporarily expose soil to erosion via wind and water; this erosion could increase the potential for sedimentation of overland runoff flowing to the Phase 1B preservation area (to the east of the proposed Phase 2 expansion area) and/or the man-made drainage canal along the southern border of the proposed Phase 2 expansion area.

The following management actions are incorporated into the Proposed Action to further reduce the potential for adverse impacts on surface water.

- Incorporating the erosion control BMPs previously described under the Soils heading in Section 3.4.
- The Proposed Action will comply with USEPA Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA (USEPA, 2007) to the maximum extent technically feasible through engineering and design controls, such as minimizing the creation of new impervious surfaces, directing stormwater runoff to designated storage basins, and allowing precipitation to infiltrate into the ground surface to the maximum extent possible.
The Proposed Action will include stormwater management systems that comply with the SJRWMD requirement that the post-development site has a combined site and soil storage equivalent to the pre-development condition (FAC Rule Chapter 40C-41: Surface Water Management Basin Criteria). Filling of the site will be completed to avoid interaction with the groundwater, to compensate for stormwater storage requirements by the SJRWMD, and to accommodate for burial sites.

Therefore, construction of the Proposed Action would have a long-term, direct, less-than-significant adverse impact on surface water.

**Operation.** Operation of the Proposed Action would generate stormwater runoff from the new impervious surfaces. This runoff volume would be directed to the existing and newly expanded stormwater retention basins. The expanded stormwater retention basin will be designed with sufficient capacity to accommodate the stormwater runoff volume generated within the Phase 2 expansion area. As previously described, irrigation water for the new burial areas would be supplied by the stormwater water retention basins. To further reduce the irrigation demand, the new burial areas would be planted with native, non-invasive, drought-resistant varieties to the extent practicable, and VA’s directive for water conservation would be implemented, as applicable. Additionally, the SWPPP (prepared for the FDEP NPDES permit) would be updated in the event any stormwater management requirements changed post construction.

Operation of the Proposed Action would also generate small volumes of excess soils that are excavated from burial plots but not returned to the plot. These excess soils will be stored at the maintenance area, where they would be protected from erosion by physical barriers.

Therefore, operation of the Proposed Action would have a short-term, direct, less-than-significant adverse impact on surface water.

**Groundwater**

**Construction.** Construction activities may encounter groundwater when it is ponded or near the ground surface. Ground-breaking construction activities may cause sedimentation within areas of the site that are inundated with water. Construction activities may also impact groundwater quality if there is an accidental release of vehicle fluids (fuel, hydraulic oil).

Construction dewatering may be required for ground-breaking work. If the dewatering duration does not exceed 30 days, the dewatering quantity is less than 300,000 gallons per day, and the dewatering activity meets all the other exemption criteria in SJRWMD Rule 40C-2.051(7), FAC (Permitting of Consumptive uses of Water, revised August 29, 2018), the proposed construction would qualify for a Permit by Rule through the SJRWMD. If dewatering activities exceed any of the thresholds, then a notice of dewatering activities would be required for submittal to SJRWMD.

The Phase 2 expansion area burial sections and roadways are designed to avoid interaction with the seasonal high groundwater table. Adverse impacts to groundwater could be further minimized by timing construction activities outside the wet season when areas of the site are inundated with water, to the extent practicable. Additionally, construction equipment would be maintained in good working order to reduce the potential for fluid releases, and spill kits would be maintained at the site at all times and deployed immediately if a release occurs.

Therefore, construction of the Proposed Action may have a short-term, direct, less-than-significant adverse impact on groundwater quality.

**Operation.** The construction phase will increase the ground elevation such that during operation, in-ground burial vaults will be above seasonal high groundwater elevations, and therefore would not come in contact with groundwater. Operation of the Proposed Action would require the use of fertilizers and herbicides to maintain landscaped vegetation. These chemicals would be applied by certified professionals according to label requirements to reduce potential impacts to groundwater quality.

Therefore, operation of the Proposed Action would have short-term, direct, less-than-significant adverse impacts on groundwater.
3.5.2.2 **No Action**

No changes to the site would occur from implementation of the No Action alternative; therefore, no impacts to hydrology or water quality would occur. Baseline conditions would remain, as described above.

3.6 **Wildlife and Habitat**

3.6.1 **Existing Environment**

Federally-listed species are those plant and animal species protected by the federal government pursuant to the Endangered Species Act of 1973, as amended. Federally-listed species are classified as endangered or threatened. State-listed species are those plant and animal species managed by the State of Florida pursuant to Chapter 5B-40 FAC and Chapter 68A-27 FAC, respectively. State-listed species are classified as endangered, threatened, species of special concern (animals), or commercially exploited (plants).

In June 2017, on behalf of VA, AECOM conducted a review of available literature, and online data sources for the presence of state-listed and/or federally-listed species and their habitats within an approximately 60-acre area encompassing the proposed expansion area and its periphery. In June 2017, AECOM performed an on-site field survey. The results of this flora and fauna survey were presented in the Endangered Species Survey Report, included in Appendix C in this SEA. A summary of the survey findings is presented in the following section.

Based on a review of available literature, online data sources, and field surveys, a total of 10 state-listed plant species and 6 state-listed and/or federally-listed animal species were determined to have the potential to occur within the proposed expansion area. Another species of concern that has the potential to occur and is protected by state and federal law is the bald eagle (*Haliaeetus leucocephalus*). Table 7 provides a summary of the listed and protected species with potential to occur within the proposed expansion area.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Federal Status</th>
<th>State Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Asclepias viridula</em></td>
<td>Southern Milkweed</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td><em>Balduina atropurpurea</em></td>
<td>Purple Honeycomb-head</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td><em>Calopogon multiflorus</em></td>
<td>Many-flowered Grass-pink</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td><em>Coreopsis integrifolia</em></td>
<td>Ciliate-leaf Tickseed</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td><em>Ctenium floridanum</em></td>
<td>Florida Toothache Grass</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td><em>Matelea floridana</em></td>
<td>Florida Spiny-pod</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td><em>Pycnanthemum floridanum</em></td>
<td>Florida Mountain Mint</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td><em>Rudbeckia nitida</em></td>
<td>St. John’s Blackeyed Susan</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td><em>Sideroxylon alachuense</em></td>
<td>Silver Buckthorn</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td><em>Verbesina heterophylla</em></td>
<td>Variable-leaf Crownbeard</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td><strong>Reptiles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Gopherus polyphemus</em></td>
<td>Gopher Tortoise</td>
<td>C</td>
<td>T</td>
</tr>
<tr>
<td><em>Drymarchon corais couperi</em></td>
<td>Eastern Indigo Snake</td>
<td>T</td>
<td>NL</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Cistothorus palustris griseus</em></td>
<td>Worthington’s Marsh Wren</td>
<td>NL</td>
<td>SSC</td>
</tr>
<tr>
<td><em>Egretta caerulea</em></td>
<td>Little Blue Heron</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td><em>Mycteria americana</em></td>
<td>Wood Stork</td>
<td>T</td>
<td>NL</td>
</tr>
<tr>
<td><em>Picoides borealis</em></td>
<td>Red-Cockaded Woodpecker</td>
<td>E</td>
<td>T</td>
</tr>
<tr>
<td><strong>Other Species of Concern</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Haliaeetus leucocephalus</em></td>
<td>American Bald Eagle</td>
<td>NL</td>
<td>NL</td>
</tr>
</tbody>
</table>

Notes: F = Federal; T = Threatened; SSC = Species of Special Concern; E = Endangered; NL = Not Listed; C = Candidate
Flora

None of the 10 state-listed plant species reported by the Florida Natural Areas Inventory (FNAI) databases as occurring within one mile of the proposed expansion area were observed during the on-site field survey. Therefore, it has been determined that the Proposed Action would not adversely affect any of these listed plant species.

Fauna

Of the reptiles and avian species reported by the FNAI databases as occurring within one mile of the proposed expansion area, the little blue heron was the only species observed within the proposed expansion area, foraging within the areas of standing water. No other species were observed during the on-site field survey for eastern indigo snakes, gopher tortoises, red cockaded woodpeckers, wood storks, marsh wrens, and bald eagles.

Critical Habitat

No federally-designated Critical Habitat as defined by 17 CFR 35.1532 is present within the proposed expansion area for any federally-listed species.

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

Construction and Operation. Construction and operation of the Proposed Action will convert the land from improved pasture to landscaped cemetery grounds. This will remove existing habitat for the little blue heron, the only listed species observed during the on-site field surveys. However, the expanded stormwater retention basin will provide foraging habitat for wading birds. Additionally, the proposed development will remove potential core foraging area for the one active wood stork colony that is located 10.5 miles southeast at the Jacksonville Zoo (wood storks were not observed during the on-site field survey).

To offset the loss of habitat incurred from direct wetland impacts, VA has proposed 27.97 acres of wetland creation on VA-owned property south of Lannie Road. This proposed mitigation plan is consistent with the existing SJRWMD and USACE permits authorizing construction for Phase 2 of the cemetery. This wetland creation would also satisfy the requirements of the Clean Water Act (CWA) Section 404(b)(1) and provide habitat compensation sufficiently replacing the foraging value of lost habitat for these and other species of wildlife.

Although no gopher tortoises or burrows were observed during the on-site field survey, gopher tortoises are highly mobile and could have moved into the expansion area after the survey. To ensure there are no impacts to gopher tortoises, within 72 hours prior to construction VA will conduct a gopher tortoise survey within the proposed expansion area. If any gopher tortoises or burrows are found within or less than 25 feet from the proposed expansion area disturbance boundary, VA will contact and coordinate with the Florida Fish and Wildlife Conservation Commission (FWC) to secure permits needed to relocate the gopher tortoises and any associated listed species (eastern indigo snake) prior to construction. Assuming VA will adhere to this commitment, the Proposed Action would not adversely affect the gopher tortoise. Additionally, VA would incorporate the USFWS Standard Protection Measures for the Eastern Indigo Snake (USFWS, 2013) in the Proposed Action construction plans to avoid adverse impacts to this federally listed species.

These management and mitigation actions are incorporated in the Proposed Action. Therefore, construction and operation of the Proposed Action would have a short-term, direct and indirect, less-than-significant impact on wildlife and habitat.

These management measures are summarized in Section 5.0 of this SEA.

3.6.2.2 No Action

No changes to the site would occur from implementation of the No Action alternative; therefore, no impacts to wildlife or habitat would occur. Baseline conditions would remain, as described above.
3.7 Noise

3.7.1 Existing Environment

Noise-sensitive receptors are defined as properties where frequent human use occurs and where a lowered noise level would be of benefit. These noise-sensitive receptors are considered to be residences, hospitals, libraries, recreation areas, churches, and other similar uses. Numerous residences are located to the east and west of the Jacksonville National Cemetery. However, no schools, hospitals, or religious institutions are located within one mile of the Jacksonville National Cemetery (NEPAssist, 2017).

Noise at the Jacksonville National Cemetery is currently generated during daytime hours, during weekdays, and includes ceremonial rifle salutes during memorial services at committal shelters, routine maintenance activities (mowing, burials, etc.), and visitor traffic within the cemetery grounds.

Noise in the vicinity of the Jacksonville National Cemetery is generated by traffic along Lannie Road. The traffic predominantly consists of passenger vehicles. No other notable noise-generating sources are present in the immediate vicinity of the Jacksonville National Cemetery.

3.7.2 Environmental Consequences

3.7.2.1 Proposed Action

Construction. Noise will be generated by construction equipment involved in land clearing, filling, grading, road construction, excavation, and associated physical infrastructure development. Once mobilized to the site, the majority of equipment would remain within the proposed expansion area boundary until the phase of construction for which the equipment was needed is complete. This approach minimizes the need for multiple mobilizations of equipment and decreases the amount of noise associated with equipment travel on nearby roads.

Within the proposed expansion area, noise from construction activities would vary depending on the type of equipment being used at the time. The impact from this noise on a receptor depends on the distance between the noise source and receptor. Generally, noise levels decrease by approximately 6 dBA for every doubling of distance for point sources (such as a single piece of construction equipment), and approximately 3 dBA for every doubling of distance for line sources (such as a stream of motor vehicles on a busy road at a distance). The nearest noise receptor would be the sparse residential homes located approximately 0.2 miles east of the proposed expansion area. A portion of the Phase 1B preservation area (forest) and other dense vegetation is located between the proposed expansion area and this receptor, further attenuating the intensity of noise experienced by these receptors.

Noise impacts would be further minimized by equipping construction equipment with appropriate sound-muffling devices (i.e., from the original equipment manufacturer or better), and limiting engine idling to less than five minutes. Additionally, construction activities would take place during daylight hours, unless there is a specific activity that would directly impact the current operation of the cemetery, in which case the activity would be scheduled outside of the normal construction schedule.

To minimize construction noise impacts on cemetery memorial services, notably loud construction activities would be scheduled to occur when these services are not being conducted, to the extent possible.

Construction workers would be working in close proximity to construction equipment and could be exposed to noise levels above 90 dBA. This is above the permissible noise exposure level defined by the Occupational Safety and Health Administration (OSHA). These levels would be reduced to permissible levels through feasible administrative or engineering controls, and/or the use of BMPs such as the use of hearing protection equipment to ensure compliance with applicable OSHA standards.

Therefore, construction of the Proposed Action would result in short-term, direct, less-than-significant adverse noise impacts on receptors that include visitors to the cemetery, and to a lesser extent to off-site receptors.
**Operation.** The Proposed Action does not include any new committal shelters; therefore, no new locations for ceremonial rifle salutes would be created. Ceremonial salutes would continue to occur at the Phase 1 cemetery committal shelters, which are farther west from residential areas than the proposed expansion area. Operation of the Proposed Action would expand noise generated from maintenance activities and visitor traffic occurring within the expansion area. The noise generated from these activities would be similar to current cemetery operations. These noises have not generated any documented complaints from nearby receptors. To further minimize operational noises, maintenance equipment would be maintained in good working order and shut down when not in use. As such, operation of the Proposed Action would result in short-term, direct, less-than-significant adverse noise impacts on the aforementioned receptors.

These management measures are summarized in Section 5.0 of this SEA.

### 3.7.2.2 No Action

Under the No Action alternative, the Proposed Action would not be implemented. Noise would continue to be generated from ceremonial rifle salutes and grounds maintenance activities.

### 3.8 Land Use

#### 3.8.1 Existing Environment

The Jacksonville National Cemetery is located in Duval County, within zoning district *Public Buildings and Facilities* (PBF-2), which allows for all lawful government uses with very few exceptions (City of Jacksonville, 2017). As previously described, VA currently leases the land within the Phase 2 development boundary (excluding the Phase 1B preservation area and buffer) to a local cattle rancher for use as pasture.

#### 3.8.2 Environmental Consequences

##### 3.8.2.1 Proposed Action

**Construction and Operation.** The Proposed Action will change the land use from cattle pasture to landscaped cemetery grounds, which was the intended purpose of the land since its purchase by VA on July 20, 2008. The proposed expansion area will be within the existing boundary of the Jacksonville National Cemetery, in an area planned for cemetery use, and will not require or lead to changes in land use in the vicinity. Accordingly, developing the land for the Phase 2 cemetery will have no impact on future land use at or in the vicinity of the Jacksonville National Cemetery.

##### 3.8.2.2 No Action

Under the No Action alternative, the Proposed Action development would not occur. Baseline land use conditions would remain, as described above.

### 3.9 Floodplains, Wetlands, and Coastal Zone Management

#### 3.9.1 Existing Environment

##### 3.9.1.1 Floodplains

Based on review of the available Federal Emergency Management Agency (FEMA) floodplain map (Flood Insurance Rate Map [FIRM] map #12031C), the proposed expansion area is not within a mapped 100-year or 500-year floodplain (FEMA, 2016) (Figure 9).
Figure 9. FEMA Floodplain Map
3.9.1.2 Wetlands

In 2008, field surveys were conducted on behalf of VA by ESI to verify the presence and extent of biological and natural resources occurring within the Phase 2 development area identified in the 2007 Master Plan.

ESI delineated boundaries of on-site wetlands pursuant to the methodology provided within Chapter 62-340, FAC, “Delineation of the Landward Extent of Wetlands and Surface Waters” and the USACE Wetland Delineation Manual (USACE, 1987). These wetland boundaries were verified in the field by the SJRWMD as part of the formal jurisdictional determination. As previously described, the results of these field surveys were utilized to obtain a Section 404 permit from the USACE and an SJRWMD ERP, along with formal jurisdictional determination from the SJRWMD.

Supplemental field evaluations within the proposed expansion area were performed on behalf of VA by Mabbett and AECOM on June 21, 2017, to verify field conditions previously reported in the aforementioned permits. All vegetative habitats and land uses within the proposed expansion area were classified using the Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT, 1999). The findings of the field surveys are presented in the Wetland Delineation Report, included in Appendix C in this SEA. A summary of this information is presented in this section.

Wetlands within the proposed expansion area include approximately 3.72 acres of mixed hardwoods in the western portion of the Phase 2 area and approximately 8.15 acres of improved pastures in the southwestern and western portions of the Phase 2 area (Figure 4).

3.9.1.3 Coastal Zone Management

The Coastal Zone Management Act (CZMA) was enacted in 1972 to preserve, protect, develop, and where possible, to restore and enhance the resources of the nation's coastal zone. Coastal states are encouraged to develop state coastal management programs, and comprehensively manage and balance competing uses of and impacts to coastal resources. The United States Department of Commerce National Oceanic and Atmospheric Administration (NOAA) approves coastal management programs. The Florida Coastal Management Program (FCMP) was approved by NOAA in 1981 and is codified at Chapter 380, Part II, Florida Statutes (FS). Under this program, the entire state of Florida is located within a designated coastal zone. The CZMA requires that any federal actions affecting any land or water use, or natural resource of the coast be consistent with the enforceable policies of a state's federally approved coastal management program. Consistency evaluations in the state of Florida are conducted by the FDEP Coastal Management Program in coordination with the environmental review process in accordance with Section 373.428, FS.

3.9.2 Environmental Consequences

3.9.2.1 Proposed Action

Wetlands

Construction and Operation. The Proposed Action will require development of approximately 11.87 acres of jurisdictional wetlands. Impacted wetlands include mixed hardwoods in the western portion of the Phase 2 development area and improved pastures in the southwestern and western portions of the Phase 2 area. Approximately 3 acres of wetlands would also be developed to expand the northern edge of the existing Phase 1 stormwater retention basin, consistent with the 2007 Master Plan design. As described in the aforementioned USACE and SRJWMD permits (see Sections 1.3.1 and 1.3.2), to offset the loss of habitat incurred from direct wetland impacts VA has proposed 27.97 acres of wetland creation on VA-owned property, south of Lannie Road. Additionally, 2.77 acres of uplands will be preserved. These actions are defined in the approved mitigation plans within ERP-115730-003 and SAJ-2006-02208 (SP-BAL) (Figure 4). These requirements will be formalized through construction permits and were estimated using previously approved UMAM scores. The configuration and mitigation approach shown on Figure 4 meets the intent of the conceptual permit but is subject to the review by the SJRWMD when construction drawings are submitted to them for their approval. Following completion of the wetland creation and wetland enhancement components of the mitigation plans, VA will conduct the monitoring required to demonstrate permit compliance.
During construction of the Proposed Action, nearby wetlands will be protected from sediment-laden runoff by the placement of synthetic hay bales, silt fencing, and similar construction BMPs specified in the SWPPP and SESC plan and NPDES Construction Generic Permit. The Proposed Action is also designed to directed surface water runoff to flow into the existing and newly expanded stormwater retention basin, therefore avoiding any potential impacts to adjacent wetlands and surface waters. Additionally, post-development hydrology will be equivalent to pre-development hydrology through the appropriate engineering design and development of the expanded stormwater retention basin, to the maximum extent technically feasible.

Therefore, the Proposed Action will have short-term, direct, less-than-significant adverse impacts on wetlands.

These management measures are summarized in Section 5.0 of this SEA.

**Floodplains and Coastal Zone Management**

The Proposed Action is not within a floodplain and therefore will have no impact on floodplains. The Proposed Action is not anticipated to affect coastal zone management areas. As part of the 2006 Final EA, the FDEP concurred that the planned development for the Jacksonville National Cemetery was consistent with the Coastal Zone Management Program. Additionally, projects that have been issued an ERP are consistent with the Coastal Zone Management Program. Accordingly, the Florida Clearinghouse did not select the Proposed Action for further review (a copy of this communication is provided in Appendix B).

### 3.9.2.2 No Action

Under the No Action alternative, there would be no impact to floodplains, wetlands, or coastal zone resources. Baseline conditions would remain, as described above.

### 3.10 Socioeconomics

#### 3.10.1 Existing Environment

The Jacksonville National Cemetery is located in unincorporated Duval County, Florida. Population and relevant demographic figures for all of Duval County and the state of Florida are presented in Table 8. Economic figures are presented in Table 9.

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Population</th>
<th>Median Age</th>
<th>% Population under age 18</th>
<th>% Minority Population</th>
<th>% High School Graduates</th>
<th>Veterans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duval County</td>
<td>926,225</td>
<td>35.8</td>
<td>23.5</td>
<td>38.6</td>
<td>88.6</td>
<td>82,862</td>
</tr>
<tr>
<td>State of Florida</td>
<td>20,612,439</td>
<td>41.4</td>
<td>20.3</td>
<td>22.4</td>
<td>86.9</td>
<td>1,507,738</td>
</tr>
</tbody>
</table>

1 U.S. Census 2016  
2 U.S. Census 2011-2015  
3 U.S. Census 2015; includes all race/ethnicity categories except non-Hispanic White persons

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Households</th>
<th>% Population in Poverty</th>
<th>% Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duval County</td>
<td>337,900</td>
<td>16.0</td>
<td>5.2</td>
</tr>
<tr>
<td>State of Florida</td>
<td>7,300,494</td>
<td>15.7</td>
<td>4.0-5.2</td>
</tr>
</tbody>
</table>

1 U.S. Census 2016  
2 U.S. Census, 2011-2015 American Community Survey 5-Year Estimates  
3 2011-2015 American Community Survey; civilian labor force aged 16+ years
3.10.2 Environmental Consequences

3.10.2.1 Proposed Action

Construction. VA would contract a qualified firm to construct the Phase 2 cemetery expansion. Construction would require employment of skilled and non-skilled labor during the approximately 18-month work period, as well as the purchase of materials (e.g. fill, aggregate) from local or regional suppliers. Construction labor and materials are estimated to cost at least $10 million.

These activities would produce a beneficial, but negligible short-term, direct impact on socioeconomics. These construction-related beneficial impacts would end once construction is completed.

Operation. The current workforce at the Jacksonville National Cemetery is anticipated to be sufficient to maintain and operate the Proposed Action. If needed, additional maintenance staff could be hired to help maintain the grounds. Maintaining or slightly increasing staff levels would have no or negligible impact on socioeconomics of the region.

The Proposed Action would increase the interment capacity and therefore the longevity of the Jacksonville National Cemetery. Over time, this would lead to a slight increase in the number of visitors to this area of northern Florida. These visitors could potentially utilize area businesses (restaurants, lodging, service stations, etc.) during visits. However, the potential increase in spending would be negligible in context to the overall economic activity in Duval County.

3.10.2.2 No Action

Under the No Action alternative, the Proposed Action would not be implemented, and the longevity of the Jacksonville National Cemetery would not be extended. The benefits associated with the Proposed Action would not be realized. Therefore, the No Action alternative would have a long-term, negligible adverse impact on socioeconomics.

3.11 Community Services

3.11.1 Existing Environment

The Jacksonville National Cemetery has provided burial benefits for Veterans and their families in northern Florida since 2009. Currently, the 52-acre Phase 1 cemetery development provides 8,145 full casket gravesites, including 7,300 pre-placed crypts, 5,100 in-ground cremain sites, and 4,992 columbarium niches. However, the Phase 1 cemetery development will reach full capacity in the next several years, and there are no other National Cemeteries within 75 miles of the Jacksonville National Cemetery. The nearest National Cemetery, the Cape Canaveral National Cemetery, is located approximately 150 miles south of the Jacksonville National Cemetery, followed by the Florida National Cemetery in Bushnell, Florida located 160 miles south, the Tallahassee National Cemetery located 175 miles west, and the South Florida National Cemetery located 310 miles south.

The Jacksonville Transportation Authority provides public transportation service to the Jacksonville National Cemetery through the TransPortal program, a pre-scheduled, door-to-door paratransit service that provides transportation within 11 counties in northern Florida for special needs residents under the Americans with Disabilities Act.

Other community services are provided by Jacksonville and Duval County and include police and fire protection, ambulance service, schools, health care, and parks and recreation. Because no additional load is expected to be placed on these or other public or community services as a result of the Proposed Action, impacts to community services other than Veterans’ burial benefits were not analyzed in this SEA.
3.11.2 Environmental Consequences

3.11.2.1 Proposed Action

**Construction and Operation.** The Proposed Action would provide 18,460 interments, and therefore extend the longevity of the Jacksonville National Cemetery. This would allow VA to meet the continued demand for burial benefits by Veterans and their families in northern Florida for at least the next 10 years, resulting in a direct, long-term, significant beneficial impact on this community resource.

3.11.2.2 No Action

Under the No Action alternative, the Proposed Action would not be implemented, there would be no increase in burial capacity, and the longevity of the Jacksonville National Cemetery would not be extended. Veterans, their families, and visitors would have to travel at least 150 miles—a distance considered to be an undue burden—to obtain burial benefits at the next nearest National Cemetery in Florida. This would result in a long-term, significantly adverse impact on this community resource in northern Florida.

3.12 Solid and Hazardous Materials

3.12.1 Existing Environment

There are no known solid or hazardous materials present within the proposed expansion area at the Jacksonville National Cemetery (VA, 2006).

Currently, solid waste generated at the Jacksonville National Cemetery generally consists of office debris, flowers and other items left behind at burial sites, and container waste associated with minor vehicle maintenance activities. These solid wastes are collected by a VA contractor and transferred to an off-site landfill for disposal and/or recycling.

Minimal quantities of hazardous materials are stored at the Jacksonville National Cemetery. These materials include diesel and gasoline separately stored in a combined 500-gallon aboveground storage tank (AST), up to 18 lead/acid batteries for carts and machinery, oil/grease for maintenance machinery, paints, and temporary storage of up to 55 gallons of waste oil that is transported and disposed of off-site by an outside vendor. The maintenance complex also houses an oil/water separator to collect wash water from maintenance vehicles; the oil/water separator is cleaned as needed by an outside vendor. Herbicides and pesticides for pest control and weed management are brought on-site and applied by licensed contractors on an as-needed basis.

Small volumes of excess soils are generated during burial operations. These soils are reutilized on-site where possible. Small volumes of excess soils are stored at the maintenance shop and are not visible from memorial sections or areas outside of the Jacksonville National Cemetery.

3.12.2 Environmental Consequences

3.12.2.1 Proposed Action

**Construction.** Construction of the Proposed Action has the potential to generate solid waste, including cleared vegetation and excess construction materials and packaging.

To minimize the volume of wastes requiring off-site landfilling, cleared vegetation would be transported off-site for composting. Suitable excess soils would be re-used on site as fill. Excess construction materials would be containerized in a designated area within the construction site and then transported off-site for recycling; materials that cannot be recycled would be landfilled off-site. The nature of the solid wastes generated during construction would be similar to a typical construction project, and fewer than 60 cubic yards of wastes are anticipated to be generated. This volume of solid waste would have a negligible impact on the overall volume of solid waste generated and disposed of in Duval County or in northern Florida.

Additionally, construction contractors would be required to comply with VA's solid and hazardous materials standard operating procedures (SOPs) and management measures specified in NCA Master Construction Specifications. These management measures would ensure that potential adverse impacts
from construction of the Proposed Action would remain at short-term, direct, less-than-significant levels on solid and hazardous materials.

**Operation.** Operation of the Proposed Action would increase the volume of solid waste currently generated at the Jacksonville National Cemetery; these wastes would include flowers and other debris left behind at memorial sites, as well as excess soil generated during in-ground burials. No other types of solid waste would be generated. The solid waste management program currently in place at the Jacksonville National Cemetery is capable of handling this additional volume without impacting ongoing operations. As previously described, excess soils that cannot be returned to the burial site would be stored in the designated stockpile area located in the maintenance complex. Hazardous materials used during operation would be limited to any approved pesticides and/or herbicides applied by licensed applicators according to the manufacturers’ labeled instructions.

Therefore, operation of the Proposed Action would have a short-term, direct, less-than-significant adverse impact on solid and hazardous materials.

These management measures are summarized in Section 5.0 of this SEA.

**3.12.2.2 No Action**

No changes to solid and hazardous materials volume or management would occur under the No Action alternative.

**3.13 Transportation and Parking**

**3.13.1 Existing Environment**

The Jacksonville National Cemetery main entrance is located along Lannie Road, a two-lane road maintained by the Jacksonville Department of Public Works. An unimproved gravel road located approximately 0.4 miles east of the main entrance provides access to the Model Airplane Field and the pasture land within the proposed expansion area.

The Jacksonville National Cemetery is located approximately 16 miles from the Jacksonville International Airport/Interstate 95, but requires travel along a circuitous route through residential neighborhoods. To address this issue, the Florida Department of Transportation (FDOT) and Federal Highway Administration (FHWA) have jointly proposed construction of a new two-lane roadway, 3.4 miles long, that begins at the western terminus of Arnold Road and ends at the intersection of Lannie Road and Ethel Road (at the southwestern portion of the Jacksonville National Cemetery) (Figure 10). This road would provide a more direct connection between the Jacksonville National Cemetery and the Jacksonville International Airport/Interstate 95. The FDOT and FHWA completed a NEPA EA to evaluate the impacts of the proposed roadway in 2016 (FDOT, 2016). Based on the EA, FDOT and FHWA determined the proposed roadway would not have any significant impact on the human environment; a FONSI was issued on February 1, 2017 (FDOT, 2017a). The FDOT has not announced when the proposed roadway would begin or end construction (FDOT, 2017b).

Operation of the Jacksonville National Cemetery contributes approximately 350 vehicles to the daily traffic volume along Lannie Road. This traffic is generated from an average of 10 funeral services performed per weekday (approximately averaging 38 per week), with each funeral cortege containing approximately 30 vehicles, as well as a small number of vehicles from employees, contractors, and visitors.

As previously described under Community Services, public transportation service to the Jacksonville National Cemetery is provided on an as-needed basis through the TransPortal program. Otherwise, there is no public transportation service available.

Within the Jacksonville National Cemetery, a series of asphalt-paved roadways allows visitors and staff to access burial areas, maintenance buildings, and administrative offices. Use of this roadway is restricted to cemetery visitors and staff. No recreational uses are permitted. Visitors can park on the grass-covered roadway shoulder. A cortege area located east of the administration/public information center provides a designated parking area for visitors attending a memorial service. A separate contractor/maintenance
parking area is located next to the maintenance building and is accessible from the maintenance entrance along Lannie Road; this ensures construction equipment is not readily visible to visitors and maintains the solemnity of the Jacksonville National Cemetery.

No other developed parking areas are present within or in the vicinity of the Jacksonville National Cemetery.

The 2006 Final EA for site selection concluded that the impact of the Jacksonville National Cemetery on day-to-day transportation at this location would be minimal (VA, 2006). To date, operation of the Jacksonville National Cemetery has not resulted in significant adverse impacts to area traffic levels or the transportation network.

### 3.13.2 Environmental Consequences

#### 3.13.2.1 Proposed Action

**Construction.** Construction of the Proposed Action would result in a temporary increase in the number of vehicles (including both trucks and personal vehicles) on area roadways leading to Lannie Road and ultimately the Jacksonville National Cemetery. The existing area roadway infrastructure (Level of Service A and B) is adequate for handling the temporary increase in roadway use, and no modifications to these roadways or traffic patterns would be required.

Construction vehicles traveling to and from the proposed expansion area would be required to use the gravel roadway entrance, located along Lannie Road and east of the Jacksonville National Cemetery main entrance. If warranted, flaggers may be utilized to notify oncoming traffic of slower construction vehicles entering or exiting Lannie Road. If necessary, construction vehicles may also travel on the existing roadways within Jacksonville National Cemetery; these roadways can accommodate the temporary construction traffic and would not require physical alternation or traffic pattern modifications. However, construction traffic within the Phase 1 cemetery would be scheduled and routed to avoid interfering with committal service processions.

Therefore, construction activities associated with the Proposed Action would have a short-term, direct, less-than-significant adverse impact on transportation and parking within or in the vicinity of the Jacksonville National Cemetery.

These management measures are summarized in Section 5.0 of this SEA.

**Operation.** During operation of the Proposed Action, visitors would access the new burial areas from the existing main entrance and roadways, which would connect to the new expansion roadway just north of the Administration/PIC facility. The new roadway would be approximately 20 feet wide, similar to existing roads within the Jacksonville National Cemetery. However, no new parking areas would be created; visitors would continue to be allowed to park on the roadway shoulder within the Phase 2 cemetery.

Operation of the Phase 2 cemetery would result in a negligible increase in visitor traffic on roadways leading to and within the Jacksonville National Cemetery. This increase is not anticipated to reduce the LOS of area roadways nor cause problems with transportation patterns within the Jacksonville National Cemetery. Should the FDOT proposed connector road be constructed between the Jacksonville National Cemetery and the Jacksonville International Airport/Interstate 95, it would further reduce traffic volume on the local roadways currently used to access the Jacksonville National Cemetery.

Therefore, operation of the Proposed Action would have no adverse or beneficial impact on transportation and parking.

#### 3.13.2.2 No Action

No changes to transportation or parking at the Jacksonville National Cemetery would occur under the No Action alternative; therefore, no impacts would occur. Baseline conditions would remain, as described above.
Figure 10. Proposed FDOT Access Road
3.14 Utilities

3.14.1 Existing Environment

The Jacksonville National Cemetery currently utilizes electric, natural gas, telecommunication, and solid waste collection utilities. Irrigation water is obtained from the existing stormwater retention basins.

3.14.2 Environmental Consequences

3.14.2.1 Proposed Action

Construction. Construction of the Proposed Action would not require utilization of any of these utilities. Construction contractors would power equipment using on-board engines or portable generators.

As part of the construction process, a combination of new irrigation lines and current irrigation lines would be installed between the new burial sections and the existing and newly expanded stormwater retention basins. All irrigation water for the newly landscaped burial sections would be supplied from these stormwater retention basins. Extension and installation of irrigation supply lines would not disrupt the Phase 1 irrigation system currently in use at the Jacksonville National Cemetery. Construction of the Phase 2 cemetery would not require modifications or interruptions in any other utility service at or in the vicinity of the Jacksonville National Cemetery. Therefore, construction of the Proposed Action would have no impact on utility demand or level of service.

Operation. A maximum of approximately 110,000 gallons of water per day during peak season, and approximately 3.5 million gallons per year, would be required to irrigate the approximately 20-acres of the new landscaping in the Phase 2 expansion. The irrigation water would be supplied from the existing and newly expanded stormwater retention basins. An increase in electricity usage would be required to operate new irrigation water pumps. However, this increase would be negligible relative to the current electrical usage at the Jacksonville National Cemetery and would not result in a decrease or loss of electrical service to other customers in the region. To further minimize use of the electric utility, VA’s water conservation design guidelines and SOPs would be implemented, along with the planting of native, non-invasive drought tolerant vegetation, to decrease the operation of irrigation water pumps to the extent practicable.

Therefore, operation of the Proposed Action would have a short-term, direct, less-than-significant adverse impact on utilities.

These management measures are summarized in Section 5.0 of this SEA.

3.14.2.2 No Action

No changes to utility requirements at or in the vicinity of the Jacksonville National Cemetery would occur under the No Action alternative; therefore, no impacts would occur. Baseline conditions would remain, as described above.

3.15 Environmental Justice

3.15.1 Existing Environment

Executive Order (EO) 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was enacted in 1994 to focus federal agencies’ attention on the environmental and human health conditions in minority communities and low-income communities, with the goal of achieving environmental justice. Under this EO, federal agencies must identify and address the human health or environmental effects of its actions on minority and low-income populations.

For this analysis, data for minority and low-income population were obtained for the area within a 2.5-mile radius of the Jacksonville National Cemetery, all of Duval County, and the state of Florida (Table 10). According to these data, the areas within a 2.5-mile radius of the Jacksonville National Cemetery have a lower percentage of minority and low-income population than both Duval County and the state of Florida.
Table 10. Minority and Low-Income Populations

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Population</th>
<th>% Minority Population</th>
<th>% Population below Poverty Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5-mile radius of the Jacksonville National Cemetery</td>
<td>2,622</td>
<td>25</td>
<td>2.4</td>
</tr>
<tr>
<td>Duval County</td>
<td>926,225</td>
<td>38.6</td>
<td>16.0</td>
</tr>
<tr>
<td>State of Florida</td>
<td>20,612,439</td>
<td>22.4</td>
<td>15.7</td>
</tr>
</tbody>
</table>

1 U.S. Census, 2016
2 U.S. Census, 2015; includes all race/ethnicity categories except non-Hispanic White persons
3 U.S. Census, 2011-2015 American Community Survey 5-Year Estimates

3.15.2 Environmental Consequences

3.15.2.1 Proposed Action

Construction and Operation. The Proposed Action is not anticipated to have a disproportionate impact on low-income or minority groups in Duval County. The Proposed Action would cause no changes in population, income levels, housing, local tax revenues, or other non-cemetery community services. However, as previously described under the Socioeconomics heading in Section 3.10, the Proposed Action may provide a temporary increase in local employment if the contractor(s) selected to perform construction/demolition activities hire local crew members, which could result in a minor positive socioeconomic impact on the community. Additionally, the Proposed Action would extend the longevity of the Jacksonville National Cemetery, thereby reducing travel costs for residents in northern Florida who otherwise would have had to travel to another National Cemetery outside of northern Florida.

3.15.2.2 No Action

No changes at the Site would occur from implementation of the No Action alternative; therefore, no Environmental Justice impacts to minority and low-income populations would occur. Baseline conditions would remain, as described above.

3.16 Cumulative Impacts

The CEQ regulations for implementing NEPA define cumulative effects as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). This SEA considers past, present, and reasonably foreseeable short-term and long-term future effects from implementing the Proposed Action and other projects that coincide with the location and timetable of the Proposed Action. Reasonably foreseeable projects are projects for which plans have been approved, projects for which funding has been identified, recently completed projects, and projects in progress.

3.16.1 Proposed Action

The analysis of cumulative effects evaluated the direct effects of the Proposed Action in combination with the impacts of past, present, and reasonably foreseeable projects by others. The following documents were reviewed to identify projects in the vicinity of the Jacksonville National Cemetery:

- 2006 Final EA for the Jacksonville National Cemetery site selection (VA, 2006).
- 2016 EA and Section 4(f) De Minimis Use of the Jacksonville National Cemetery Property (Jacksonville National Cemetery Access Road) (FDOT, 2016).
Past uses of the land at and in the vicinity of the Jacksonville National Cemetery include agricultural activities, rural residential development, development of the correctional centers, and development of the Phase 1 Jacksonville National Cemetery.

Future land use plans indicate that limited growth can be expected to occur in the vicinity of the Jacksonville National Cemetery. As previously described in Section 3.13, the most relevant foreseeable growth project is the joint FDOT and FHWA project for the proposed construction of a new two-lane roadway, 3.4 miles in length, that begins at the western terminus of Arnold Road and ends at the intersection of Lannie Road and Ethel Road. The northern end of the proposed roadway bisects VA’s property south of Lannie Road (the “Phase 3 boundary”), covering approximately 6.17 acres of this property. The proposed roadway project included modification of VA’s existing USACE permit to revise the mitigation for wetland impacts within the Phase 3 boundary. Accordingly, the FDOT and FHWA determined the proposed roadway would not have any significant impact on the human environment and issued a FONSI on February 1, 2017 (FDOT, 2017a). To date, the FDOT has not announced when the proposed roadway would begin or end construction (FDOT, 2017b). The proposed roadway is not anticipated to induce growth in the vicinity of the Jacksonville National Cemetery, nor increase the intensity or duration of less-than-significant adverse impacts on any of the sensitive resources analyzed in this SEA.

Other growth is expected to follow the plan outlined in the 2030 Comprehensive Plan (City of Jacksonville, 2017), which maintains the area in the vicinity of the Jacksonville National Cemetery for agricultural, rural, residential, recreational, and open space uses, while the cemetery property is maintained as land for public buildings and facilities.

The Proposed Action is not anticipated to induce any additional growth in the vicinity of the Jacksonville National Cemetery. Further, the area for the proposed expansion is designated and permitted for future development as a cemetery and is within the existing boundaries of VA’s property. Construction and operation of the expansion in this area will not result in changing the rural/agricultural nature of the surrounding community. The appearance of the proposed expansion as a park-like National Shrine will ensure that the expansion aligns with the existing Jacksonville National Cemetery and continues to “fit” within the larger community.

Additionally, VA has constructed and operated dozens of similar National Cemeteries and expansions without resulting in cumulative impacts; this is primarily due to VA’s implementation of best management practices (BMPs) during construction and operation, ensuring that any potential adverse impacts are maintained at less-than-significant levels. Further, while construction and operation of the proposed expansion requires changes to several aspects of the environment (e.g. topography, landscaping, wetlands), the overall action is generally low intensity. The Proposed Action is consistent with current and anticipated future land uses and regional land development trends and would maintain or improve socioeconomics and community services in the area.

Therefore, the impacts from implementing the Proposed Action in combination with those from past, present, and reasonably anticipated future development would not be expected to generate additional adverse impacts or increase the intensity of adverse impacts above a less-than-significant level on the environmental resources analyzed in this SEA.

3.16.2 No Action

Under the No Action alternative, the proposed expansion area would remain as it currently exists for the foreseeable future. The No Action alternative would decrease the longevity of the Jacksonville National Cemetery, causing a long-term, significantly adverse effect on Community Services (e.g. lack of burial opportunity at a National Cemetery within northern Florida). The No Action alternative is not anticipated to generate additional cumulative adverse impacts or to increase the level of adverse impacts on other resources analyzed in this SEA.
3.17 Potential for Generating Substantial Controversy

The Proposed Action would extend the longevity of the Jacksonville National Cemetery. This would be positively perceived by the Veteran community and the general public in northern Florida. As discussed in previous sections, no elements of the Proposed Action are anticipated to generate substantial controversy or lead to negative public reaction.

Under the No Action alternative, the Jacksonville National Cemetery would not be expanded, and the need for additional burial opportunities at a National Cemetery in northern Florida would remain unmet. This inaction would be anticipated to generate substantial public controversy of an adverse nature.
4 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR 26, VA’s policy for implementing NEPA. Additional guidance is provided in VA’s Environmental Compliance Management Directive (VA, 2012) and VA’s NEPA Interim Guidance for Projects (VA, 2010). Consideration of the views and information of all interested persons promotes open communication and enables better decision making. Agencies, organizations, and members of the public with a potential interest in the Proposed Action, such as minority, low-income, and disadvantaged persons, are urged to participate. The following sections describe agency coordination and public involvement efforts associated with this Draft SEA and the Final SEA and FONSI.

4.1 Draft SEA

4.1.1 Federal, State, and Local Agency Coordination

As previously described under the Cultural Resources heading in Section 3.3, VA corresponded with the SHPO to obtain input on the Proposed Action during development of the Draft SEA. Details of this correspondence are discussed and documented in Section 3.3, and a copy of the correspondence is included in Appendix B.

Upon completion of the Draft SEA, VA on December 3, 2018 mailed letters to notify the following federal, state, and local agencies of the availability of the Draft SEA and the opportunity to provide comments within 30 days of receiving the letter (a copy of the letter is provided in Appendix B).

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency – Region 4
- U.S. Army Corps of Engineers, North Florida Area Office
- U.S. Department of Agriculture, Natural Resources Conservation Service
- City of Jacksonville, Mayor
- Florida Clearinghouse (which represents the following state agencies):
  - Florida Coastal Office (Coastal Zone Management Program)
  - Florida Department of Environmental Protection (FDEP)
  - Florida Fish and Wildlife Conservation Commission (FWC)
  - Florida Division of Historical Resources of the Florida Department of State (SHPO)
  - Florida Department of Transportation (FDOT)
  - Florida Department of Health (FDOH)
  - Florida Department of Agriculture and Consumer Services (FDACS)
  - Florida Department of Economic Opportunity (FDEO)
  - Florida Division of Emergency Management (FDEM)
  - St. Johns River Water Management District (SJRWMD)

Comments were received from USEPA via email on February 6, 2019. USEPA confirmed that NCA must adhere to the USACE and SJRWMD permit requirements regarding wetland impacts. Additionally, USEPA recommended that VA implement diesel emission controls to lessen emissions from off-road and on-road diesel-powered construction equipment. On February 12, 2019, the Florida State Clearinghouse stated via email that while covered under EO 12372, the Proposed Action was not selected for further review because an ERP was already obtained. Comments were not received from other agencies. Appendix B includes copies of correspondences.
4.1.2 Native American Tribal Coordination

In accordance with 36 CFR 800.2 and EO 13175, Consultation and Coordination with Indian Tribal Governments, dated November 6, 2000, VA coordinated with two federally-recognized Native American Tribes, identified as those having current or historical ties to the area, by requesting their input on the Proposed Action and its potential impact on Native American resources. Accordingly, coordination has been performed with the following two Native American Tribes:

- Miccosukee Tribe of Indians of Florida
- Seminole Tribe of Florida

As previously described under the Cultural Resources heading in Section 3.3.1, only the Seminole Tribe of Florida has responded to VA’s request for early input during development of the Draft SEA. On January 8, 2018, the Seminole Tribe of Florida stating they had no objections to the project and requested they be notified in the event of an inadvertent discovery (a copy of the correspondence is provided in Appendix B). No comments were received from the Miccosukee Tribe of Indians of Florida.

4.1.3 Public Involvement

VA made the Draft SEA available for public review and comment. A Notice of Availability (NOA) announcing the release of the Draft SEA was published in the *Florida Times-Union*, a daily newspaper that covers the Jacksonville region, on December 4, 9, 14, and 16, 2018. A copy of the Draft SEA NOA and affidavits of publication are provided in Appendix D. As stated in the NOA, the Draft SEA was available for review in print at the Jacksonville National Cemetery; the Jacksonville Public Main Library at 303 North Laura Street, Jacksonville, Florida, 32202; and in electronic format by downloading from VA’s website at http://www.cem.va.gov/cem/EA.asp. The NOA instructed the public to submit comments or request additional information from: Mr. Glenn Elliott, U.S. Department of Veterans Affairs, Office of Construction & Facilities Management, 425 I (eye) Street, NW, Room 6W417a, Washington, D.C., 20001; by email to glenn.elliott@va.gov; or by telephone at (202) 632-5879.

No comments on the Draft SEA were received from the public during the 30-day review period.

4.2 Final SEA and FONSI

The analyses presented in the Draft SEA and comments received provide sufficient evidence and analysis for VA to determine that the Proposed Action would not cause significant environmental impacts on the environmental resources presented herein. Thus, VA concludes that an EIS is not warranted and has prepared a FONSI.

A NOA announcing the release of the Final SEA and FONSI has been published in the *Florida Times-Union*. As stated in the NOA, the Final SEA and FONSI have been made available for review in print at the Jacksonville National Cemetery Administration/Public Information Center; the Jacksonville Public Main Library at 303 North Laura Street, Jacksonville, Florida, 32202; and in electronic format by downloading from VA’s website at http://www.cem.va.gov/cem/EA.asp. As stated in the NOA, additional information may be requested from Mr. Fernando L. Fernández at U.S. Department of Veterans Affairs, Office of Construction & Facilities Management, 425 I (eye) Street, NW, Room 6W417a, Washington, D.C., 20001; via email to Fernando.Fernandez@va.gov; or by telephone at (202) 632-5529.

An administrative record containing these documents is maintained at VA OCFM in Washington, D.C.
5 BEST MANAGEMENT PRACTICES AND PERMITTING

5.1 Best Management Practices

This chapter summarizes the avoidance, minimization, and management measures (identified in Chapter 3) that have been incorporated into the Proposed Action to ensure that any adverse impacts remain at or below minor, less-than-significant adverse levels. “Management measures” are defined as routine BMPs and/or regulatory environmental compliance and protection measures that are regularly implemented as part of proposed activities, as appropriate, in Florida. Per established protocols, procedures, and requirements, VA (and VA’s design and construction contractors) would implement these management measures and satisfy all applicable regulatory requirements associated with the design, construction, and operation of the Proposed Action. These management measures are summarized in Table 11. Additionally, environmental permits and approvals potentially required for construction and operation of the Proposed Action are provided in Section 5.2.

Table 11. Environmental Protection Measures and Monitoring Incorporated into the Proposed Action

<table>
<thead>
<tr>
<th>AESTHETICS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
</tr>
<tr>
<td>• Control fugitive dust emissions through routine construction BMPs, including covering haul trucks and minimizing construction vehicle speeds entering and exiting the site.</td>
</tr>
<tr>
<td>• As needed, install view-restricting fencing between the expansion area and the existing cemetery burial sections to reduce visual impacts to visitors.</td>
</tr>
<tr>
<td>• Retain the southern tree-lined border between the Phase 2 cemetery and Lannie Road.</td>
</tr>
<tr>
<td>• Access the Phase 2 construction site from the gravel access road east of the main entrance to avoid disrupting the solemnity of Phase 1 memorial services.</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
</tr>
<tr>
<td>• Plant native, non-invasive vegetation and professionally maintain the landscaped areas consistent with existing cemetery operations.</td>
</tr>
<tr>
<td>• Maintain the cemetery entrance and grounds, and conduct maintenance activities (mowing, memorial cleaning) on a schedule that limits potential disruptions to committal services.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
</tr>
<tr>
<td>• Use appropriate dust control methods during construction activities, including but not limited to water sprays, chemical soil additives, and wheel washers (gravel entrance areas).</td>
</tr>
<tr>
<td>• Suspend construction activities during periods of sustained high winds to avoid releasing dust to the air.</td>
</tr>
<tr>
<td>• Reduce vehicle speeds to reduce dust generated by vehicles and equipment on unpaved surfaces.</td>
</tr>
<tr>
<td>• Turn off construction vehicles when not in use or idling more than five minutes.</td>
</tr>
<tr>
<td>• To the extent practicable, implement diesel emission controls for off-road and on-road construction equipment described by the Northeast Diesel Collaborative Model Contract Specification dated December 2010.</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
</tr>
<tr>
<td>• Keep landscaping and maintenance equipment (mowers, power washers used to clean monuments, etc.) in good working order.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CULTURAL RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction and Operation</strong></td>
</tr>
<tr>
<td>• Should human remains or other cultural items as defined by the Native American Graves Protection and Repatriation Act (NAGPRA) be discovered during project construction, the construction contractor will immediately cease work until VA, a qualified archaeologist, the State Historic Preservation Officer (SHPO), and Native American Tribes are contacted to...</td>
</tr>
</tbody>
</table>
properly identify and appropriately treat discovered items in accordance with applicable federal and state regulations.

**GEOLOGY, TOPOGRAPHY, AND SOILS**

**Construction**

- Develop a soil erosion and sedimentation control (SESC) plan, and install and maintain the erosion and sediment controls during the duration of construction activities and any subsequent soil disturbance activities near site drainages. Such controls may include silt fences, runoff control berms, erosion control fabric, synthetic hay bales, and rip-rap.
- Minimize the amount of exposed soils at any given time during construction activities.
- Quickly re-vegetate disturbed areas following completion of construction activities to minimize the length of time that bare soils are exposed.
- Minimize the disturbance to or creation of steep slopes (do not exceed 15% slopes).
- To reduce erosion and sedimentation of stormwater, provide an undisturbed natural buffer between the development/disturbance area and surface drainages, and direct stormwater runoff to vegetated areas and/or existing stormwater basins.
- To control stormwater and reduce potential soil erosion and sedimentation, develop and implement a Stormwater Pollution Prevention Plan (SWPPP) meeting the requirements of the FDEP National Pollution Discharge Elimination System (NPDES) Construction Generic Permit and the SJRWMD Environmental Resource Permit (ERP) (Chapter 62-330, FAC).
- Implement spill and leak prevention and response procedures for construction equipment, including maintaining a complete spill kit at the project area, to minimize the potential impact from an accidental fuel release on soil quality. Refuel construction equipment in designated impervious areas.
- Re-use suitable excess soils as fill material on-site to the maximum extent practicable.

**Operation**

- Maintain the stormwater management systems (described under construction) during operation of the Proposed Action.
- Avoid soil erosion and sedimentation of runoff by maintaining stormwater management systems so these systems meet their design requirements throughout operation of the Proposed Action.
- Maintain cemetery grounds with healthy vegetative cover to prevent soil exposure and soil erosion.

**HYDROLOGY AND WATER QUALITY**

**Construction and Operation**

- Implement the BMPs listed above for Geology, Topography, and Soils.
- Comply with USEPA Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA (USEPA, 2007) to the maximum extent technically feasible through engineering and design controls.
- Comply with the SJRWMD requirement that the post-development site have a combined site and soil stormwater storage equivalent to the pre-development condition (FAC Rule Chapter 40C-41: Surface Water Management Basin Criteria).
- Utilize native, non-invasive, drought-resistant vegetation for area landscaping to reduce irrigation requirements.
- Ensure the SWPPP is updated should any post-construction stormwater modifications be made.
- Route stormwater runoff from impervious surfaces to designated stormwater basins and drainage areas.
- Implement spill and leak prevention and response procedures, including maintaining a
complete spill kit on heavy equipment, to reduce the impacts of incidental releases of fluids from construction/maintenance vehicles to groundwater quality.

- If the dewatering duration does not exceed 30 days, the dewatering quantity is less than 300,000 gallons per day, and the dewatering activity meets all the other exemption criteria in Rule 40C-2.051(7), FAC, the proposed construction would qualify for a Permit by Rule through the SJRWMD. If dewatering activities exceed any of the thresholds, then a notice of dewatering activities would be required for submittal to SJRWMD.

- Time construction activities outside of the wet season when areas of the site are inundated with water, to the extent practicable.

- Limit use of pesticides and herbicides during operations, follow label requirements and keep usage to the lowest quantities possible, thereby reducing the potential for water quality impacts.

- Design, construct and maintain interments to avoid contact with groundwater.

- Utilize the existing and/or new stormwater retention basins to supply irrigation water, and implement VA’s water conservation design guidelines to reduce irrigation water demand.

**HABITAT AND WILDLIFE**

**Construction**

- Complete mitigation and monitoring requirements specified in the existing USACE and SJRWMD ERP permits applicable to the Phase 2 development area.

- Avoid impacts to wildlife and habitats by developing only the necessary area needed to establish interment areas, roadways, and other physical infrastructure, as depicted in VA’s 2007 Master Plan (VA, 2007).

- Entirely avoid development within the existing conservation areas.

- Stage and operate construction equipment in designated areas and away from conservation areas when not in use.

- Prior to construction, survey for and excavate all possible underground refugia (i.e. gopher tortoise burrows). If warranted, implement Gopher Tortoise permitting, mitigation, and relocation actions according to the FWC Guidelines (FWC, 2017).


**Operation**

- Plant and maintain native, non-invasive vegetation in landscaped areas.

- Avoid impacting wildlife and degrading habitat by implementing the BMPs described above for construction, and those described for operation under Soils and Hydrology and Water Quality.

**NOISE**

**Construction**

- Schedule construction activities for daylight hours to minimize potential impacts to nearby residential areas during otherwise quieter evening periods.

- Schedule notably loud construction activities for a time that would not disrupt memorial services.

- Maintain mufflers on construction equipment and shut down construction equipment when not in use (limit engine idling to less than five minutes).

- Comply with OSHA noise standards by provide hearing protectors to workers who may be exposed to loud equipment.

**Operation**

- Maintain mufflers on routine maintenance equipment (e.g. lawn mowers) and shut down equipment when not in use.
- Operate maintenance equipment during daylight working hours and away from committal services, thereby maintaining the dignity and solemnity of memorial services.

### Floodplains, Wetlands, and Coastal Zone Management

#### Construction and Operation
- Submit construction design plans and mitigation approach to SJRWMD for review and approval that the plans are consistent with the existing ERP.
- Complete mitigation and monitoring requirements specified in the existing USACE and SJRWMD ERP permits applicable to the Phase 2 development area.
- Implement the management measures specified above for Soils and Hydrology to prevent sedimentation of runoff, and prevent such runoff from reaching wetlands.

### Solid Waste and Hazardous Materials

#### Construction
- Transport cleared vegetation off-site for composting.
- Re-use suitable excess soils on site as fill.
- Containerize excess construction materials in a designated area within the construction site and transport off-site for recycling. Materials that cannot be recycled may be landfilled off-site.
- Comply with VA’s solid and hazardous materials standard operating procedures (SOPs) and management measures specified in NCA Master Construction Specifications.

#### Operation
- Continue managing solid wastes (flowers, visitor debris) according to the solid waste management program currently in place at the Jacksonville National Cemetery.
- Stockpile excess soils at the maintenance complex.

### Transportation and Parking

#### Construction
- Construction vehicles traveling to and from the proposed expansion area would be required to use the gravel roadway entrance, located along Lannie Road and east of the Jacksonville National Cemetery main entrance.
- Utilize flaggers to notify oncoming traffic of slower construction vehicles entering or exiting Lannie Road from the construction entrance, as warranted.
- Route construction vehicle traffic away from roadways within the existing Phase 1 cemetery to avoid interfering with committal service processions. If travel on Phase 1 roadways is required, schedule such travel to avoid processions.

### Utilities

#### Operation
- Utilize the existing and newly expanded stormwater retention basin system to supply irrigation water, and implement VA’s water conservation design guidelines and SOPs to reduce electrical demand (associated with operating irrigation water supply pumps).
## 5.2 List of Potential Environmental Permits Required

<table>
<thead>
<tr>
<th>Permit, Approval, or Certification</th>
<th>Responsible Agency</th>
<th>Applicable Criteria</th>
<th>Required Actions</th>
<th>Permitting Schedule</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Resource Permit (ERP) <a href="https://permitting.sjrwmd.com/epermitting.jsp/ERPActionController.do?theAction=init">https://permitting.sjrwmd.com/epermitting.jsp/ERPActionController.do?theAction=init</a></td>
<td>St. Johns River Water Management District (SJRWMD)</td>
<td>Required for projects that affect surface waters, wetlands, or sovereign submerged lands. FDEP coordinates review with other state agencies to address natural resource and cultural resource issues. Adverse impacts would be mitigated in consultation with the SJRWMD. The level of mitigation required would be established once the extent and characteristics of the affected wetland communities are determined.</td>
<td>Conduct a Pre-Application Meeting with a district engineer or environmental specialist to ensure that the proposed design meets stormwater discharge requirements. Submit an ERP application including the stormwater calculations and construction-level drawings for review and approval prior to starting construction.</td>
<td>1 month to prepare application. Agency review takes approx. 3 months.</td>
<td>This certification will be issued with the ERP listed above.</td>
</tr>
<tr>
<td>Section 404 Water Quality Certification (Clean Water Act) <a href="http://w3.saj.usace.army.mil/permits/trainingmodule/pdf/Form62-343.pdf">http://w3.saj.usace.army.mil/permits/trainingmodule/pdf/Form62-343.pdf</a> <a href="http://www.dep.state.fl.us/water/wetlands/forms/FeedSupplement.pdf">http://www.dep.state.fl.us/water/wetlands/forms/FeedSupplement.pdf</a></td>
<td>U.S. Army Corps of Engineers (USACE)</td>
<td>Projects with potential to impact waters of the United States.</td>
<td>No application required as the USACE permit issued for the overall project remains valid. In addition, the expansion would be constructed in accordance with the conceptual design plan which included this phase and the overall master plan.</td>
<td>Approx. 3 months as part of ERP processing.</td>
<td></td>
</tr>
<tr>
<td>NPDES Construction Generic Permit for Stormwater /Stormwater Pollution Prevention Plan (SWPPP) <a href="http://www.fldepportal.com/go/apply-build/">http://www.fldepportal.com/go/apply-build/</a> <a href="https://floridadep.gov/Water/Stormwater">https://floridadep.gov/Water/Stormwater</a></td>
<td>Florida Department of Environmental Protection (FDEP)</td>
<td>Construction of any facility that disturbs 1 acre or more.</td>
<td>Investigate and use the lowest acceptable quality source of water. For example, golf courses and other large users of water for landscape irrigation are required to use reclaimed water or storm water when available instead of higher quality potable groundwater.</td>
<td>2 weeks to prepare, 2 days to achieve permit coverage</td>
<td>The Notice of Intent (NOI) is submitted to FDEP in Tallahassee</td>
</tr>
</tbody>
</table>
### Permit, Approval, or Certification
<table>
<thead>
<tr>
<th>Permit, Approval, or Certification</th>
<th>Responsible Agency</th>
<th>Applicable Criteria</th>
<th>Required Actions</th>
<th>Permitting Schedule</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation Permit</td>
<td>Florida Fish and Wildlife Conservation Commission (FWC)</td>
<td>Any impact to the state-listed gopher tortoise is expected to be minor.</td>
<td>TBD – to date burrows suitable for occupation by this species have not been observed within the footprint of expansion.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Assumptions:**

Local permits will not be obtained.
6 LIST OF PREPARERS

U.S. Department of Veterans Affairs Office of Construction & Facilities Management

Mr. Glenn Elliott, Senior PP/M
Environmental Officer

Mr. Fernando L. Fernández, REM
Environmental Engineer

Contractor Staff
Mabbett & Associates, Inc. Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Years of Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Glucksman, MS, LEED AP</td>
<td>Project Manager, Document Preparation and Review</td>
<td>13</td>
</tr>
<tr>
<td>K. Hanrahan, MS</td>
<td>Subject-Matter Expert, Document Preparation</td>
<td>4</td>
</tr>
<tr>
<td>K. Samuels, PWS</td>
<td>Subject-Matter Expert, Document Preparation and Review</td>
<td>17</td>
</tr>
<tr>
<td>K. Benbow, MS</td>
<td>Subject-Matter Expert, Document Preparation</td>
<td>8</td>
</tr>
<tr>
<td>P. Steinberg, PE, LSP</td>
<td>Program Manager, Document Review</td>
<td>25</td>
</tr>
<tr>
<td>M. Martinkovic, RPA</td>
<td>Subject-Matter Expert, Document Preparation</td>
<td>13</td>
</tr>
</tbody>
</table>
REFERENCES


FDOT, 2016. 2016 Environmental Assessment and Section 4(f) De Minimis Use of the Jacksonville National Cemetery Property (Jacksonville National Cemetery Access Road).


NOAA, 2017. Local Climatological Data Station Details for Jacksonville International Airport.

SCAQMD, 2017. Off-Road – Model Mobile Source Emission Factors, from the California South Coast Air Quality Management District.


8 GLOSSARY

Sources:

Aesthetic resources: The components of the environment as perceived through the visual sense only. Aesthetic specifically refers to beauty in both form and appearance.

Affected environment: A portion of the NEPA document that succinctly describes the environment of the area(s) to be affected or created by the alternatives under consideration. Includes the environmental and regulatory setting of the proposed action.

Alternative: A reasonable way to fix the identified problem or satisfy the stated need.

Attainment area: An area that the United States Environmental Protection Agency (USEPA) has designated as being in compliance with one or more of the National Ambient Air Quality Standards (NAAQS) for sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and particulate matter. An area may be in attainment for some pollutants but not for others.

Conformity analysis: The Clean Air Act requires the United States Environmental Protection Agency to promulgate rules to ensure that federal actions conform to the appropriate state implementation plans (SIP) for air quality. Two sets of rules (one for transportation and one for all other actions) developed by USEPA establish the criteria and procedures governing the determination of this conformity. A conformity analysis follows these criteria and procedures to quantitatively assess whether a proposed federal action conforms with the SIP.

Council on Environmental Quality (CEQ): Established by Congress within the Executive Office of the President as part of the National Environmental Policy Act of 1969, CEQ coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives. The Council's Chair, who is appointed by the President with the advice and consent of the Senate, serves as the principal environmental policy adviser to the President. The CEQ reports annually to the President on the state of the environment, oversees federal agency implementation of the environmental impact assessment process, and acts as a referee when agencies disagree over the adequacy of such assessments.

Criteria pollutant: An air pollutant that is regulated by National Ambient Air Quality Standards (NAAQS). Criteria pollutants include sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and two size classes of particulate matter, PM10 and PM2.5. New pollutants may be added to, or removed from, the list of criteria pollutants as more information becomes available.

Cumulative effect (cumulative impact): The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Decibel (dB): A unit for expressing the relative intensity of sounds on a logarithmic scale from zero for the average least perceptible sound to about 130 for the average level at which sound causes pain to humans. For traffic and industrial noise measurements, the A-weighted decibel (dBA), a frequency-weighted noise unit, is widely used. The A-weighted decibel scale corresponds approximately to the frequency response of the human ear and thus correlates well with the loudness perceived by people.

Effects: Effects and impacts, as used in NEPA, are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems),
aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect would be beneficial. There are direct effects and indirect effects. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

**Endangered species**: Plants or animals that are in danger of extinction through all or a significant portion of their ranges and that have been listed as endangered by the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service following the procedures outlined in the *Endangered Species Act* and its implementing regulations.

**Environmental assessment (EA)**: A concise public document for which a federal agency is responsible that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI); aid an agency's compliance with NEPA when no environmental impact statement is necessary; or facilitate preparation of an EIS when one is necessary. Includes brief discussions of the need for the proposal, of alternatives, of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.

**Environmental impact statement (EIS)**: A detailed written statement required by Section 102(2)(C) of NEPA, analyzing the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources.

**Environmental justice**: The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. Executive Order 12898 directs federal agencies to make achieving environmental justice part of their missions by identifying and addressing disproportionately high and adverse effects of agency programs, policies, and activities on minority and low-income populations.

**Finding of no significant impact (FONSI)**: A public document issued by a federal agency briefly presenting the reasons why an action for which the agency has prepared an environmental assessment has no potential to have a significant effect on the human environment and, thus, would not require preparation of an environmental impact statement.

**Floodplain**: The lowland and relatively flat areas adjoining inland and coastal waters including flood-prone areas of offshore islands, including at a minimum that area subject to a one percent or greater chance of flooding in any given year.

**Fugitive emissions**: Emissions that do not pass through a stack, vent, chimney, or similar opening where they could be captured by a control device. Any air pollutant emitted to the atmosphere other than from a stack. Sources of fugitive emissions include pumps; valves; flanges; seals; area sources such as ponds, lagoons, landfills, and piles of stored material (such as coal); and road construction areas or other areas where earthwork is occurring.

**Hazardous material**: Any material that poses a threat to human health and/or the environment. Hazardous materials are typically toxic, corrosive, ignitable, explosive, or chemically reactive.

**Historic property**: Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native
Hawaiian organization and that meet the National Register criteria.

**Impacts**: see Effects.

**Impervious surface**: A hard surface area that either prevents or retards the entry of water into the soil or causes water to run off the surface in greater quantities or at an increased rate of flow. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots, storage areas, concrete or asphalt paving, and gravel roads.

**National Ambient Air Quality Standards (NAAQS)**: Standards defining the highest allowable levels of certain pollutants in the ambient air (i.e., the outdoor air to which the public has access). Primary standards are established to protect public health; secondary standards are established to protect public welfare (for example, visibility, crops, animals, buildings).

**National Pollutant Discharge Elimination System (NPDES)**: A provision of the *Clean Water Act* (CWA) that prohibits discharge of pollutants into waters of the United States unless a special permit is issued by the United States Environmental Protection Agency, a state, or, where delegated, a tribal government on an Indian reservation.

**National Register of Historic Places**: The nation’s inventory of known historic properties that have been formally listed by the National Park Service (NPS). The National Register of Historic Places is administered by the NPS on behalf of the Secretary of the Interior. National Register listings include districts, landscapes, sites, buildings, structures, and objects that meet the set of criteria found in 36 CFR 60.4.

**No action alternative**: The alternative where current conditions and trends are projected into the future without another proposed action.

**Particulate matter (PM), PM<sub>10</sub>, PM<sub>2.5</sub>**: Any finely divided solid or liquid material, other than uncombined (that is, pure) water. A subscript denotes the upper limit of the diameter of particles included. Thus, PM<sub>10</sub> includes only those particles equal to or less than 10 micrometers (0.0004 inch) in diameter; PM<sub>2.5</sub> includes only those particles equal to or less than 2.5 micrometers (0.0001 inch) in diameter.

**Proposed action**: In a NEPA document, this is the primary action being considered. Its impacts are analyzed together with the impacts from alternative ways to achieve the same objective and the required no action alternative, which means continuing with the status quo.

**Runoff**: The portion of rainfall or irrigation water that flows across ground surface and is eventually returned to streams. Runoff can pick up pollutants from the air or the land and carry them to streams, lakes, and oceans.

**Scope**: Consists of the range of actions, alternatives, and impacts to be considered in an environmental analysis. The scope of an individual statement may depend on its relationships to other statements (also see tiering).

**Scoping**: An early and open process for determining the extent and variety of issues to be addressed and for identifying the significant issues related to a proposed action (40 CFR Part 1501.7). The scoping process helps not only to identify significant environmental issues deserving of study, but also to deemphasize insignificant issues, narrowing the scope of the NEPA process accordingly, and for early identification of what are and what are not the real issues (40 CFR Part 1500.5(d)). The scoping process identifies relevant issues related to a proposed action through the involvement of all potentially interested or affected parties (affected federal, state, and local agencies; recognized Indian tribes; interest groups, and other interested persons) in the environmental analysis and documentation.

**Significantly**: As used in NEPA, requires considerations of both context and intensity.

Context—significance of an action must be analyzed in its current and proposed short- and long-term effects on the whole of a given resource (for example, affected region).

Intensity—refers to the severity of the effect.

**Solid waste**: Non-liquid, non-soluble materials ranging from municipal garbage to industrial wastes that
contain complex and sometimes hazardous substances. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes, and mining residues. Technically, solid waste also refers to liquids and gases in containers.

**Tiering**: A process under NEPA that seeks to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review.

**Wetlands**: Those areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do support, or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas. Jurisdictional wetlands are those wetlands protected by the *Clean Water Act*. They must have a minimum of one positive wetland indicator from each parameter (vegetation, soil, and hydrology). The U.S. Army Corps of Engineers requires a permit to fill or dredge jurisdictional wetlands.
APPENDICES

Appendix A – Background Documents
Appendix B – Regulatory Communications
Appendix C – Environmental Survey Reports
Appendix D – Public Involvement
Appendix A – Background Documents
Appendix B – Regulatory Communications
Appendix C – Environmental Survey Reports
Appendix D – Public Involvement