Draft 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

November 2018
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 the 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 the VA’s overall cemetery Master Plan developed in 2007 (VA, 2007) and would be constructed and operated according to the 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 the NCA to continue providing burial options for eligible Veterans and their families in northern Florida, and extend the longevity of this Florida National Cemetery.

The Proposed Action is needed to allow the 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 the 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; expand an existing stormwater retention pond 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 Cemetery open to new interments is the Cape Canaveral National Cemetery, which 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 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>Meets Purpose of and Need for Action</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<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. No significant adverse impact.</td>
<td>No impact.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Minor, short-term impact from particulate emissions during construction, which are below <em>de minimis</em> threshold levels. No significant adverse impact.</td>
<td>No impact.</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 grading the existing natural topography. Potential for minor, short-term impact on soils due to potential for soil erosion during construction. Minor, short-term potential impact to soil quality in the event of an 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 as a result of filling man-made drainage ditches in the western and northern portions of the expansion area, potential sedimentation of runoff, and potential groundwater quality impacts from accidental release of construction vehicle operating fluids. 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. Short-term, direct and indirect, and less-than-significant impact to listed fauna through avoidance, relocation, 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 a 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 significant 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 if outside contractors are utilized for grading and cemetery construction. No impact during operation. No significant adverse or beneficial impact.</td>
<td>No impact.</td>
</tr>
<tr>
<td>Community Services</td>
<td>Long-term, significantly beneficial impact by extending the longevity of the Jacksonville National Cemetery, benefitting veterans and their families throughout northern Florida. No significant adverse impact on other community services.</td>
<td>Long-term, significantly adverse impact because longevity will not be extended, requiring North Floridians to travel longer distances for burial and visitation. Not in compliance with Service Members Civil Relief Act.</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. Only 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 to minor adverse impact and short-term, direct, less-than-significant adverse impact due to increase in electrical utility use for irrigation water pumps.</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>No objections anticipated.</td>
<td>Substantial adverse reaction if expansion is not implemented, causing a decrease in longevity of the Jacksonville National Cemetery.</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, the VA has selected the Proposed Action as the preferred alternative.

Comments received during the 30-day comment period on the Draft SEA will be documented in and considered during the preparation of the Final SEA.
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<th>Acronym or 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>
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<tr>
<td>CUP</td>
<td>Consumptive Use Permit</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
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<tr>
<td>CZMA</td>
<td>Coastal Zone Management Act</td>
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<td>Environmental Impact Statement</td>
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<td>EISA</td>
<td>Energy Independence and Security Act</td>
</tr>
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<td>Executive Order</td>
</tr>
<tr>
<td>ERP</td>
<td>Environmental Resource Permit</td>
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<td>FAC</td>
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<tr>
<td>FCMP</td>
<td>Florida Coastal Management Program</td>
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<td>FDEP</td>
<td>Florida Department of Environmental Protection</td>
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<td>FONSI</td>
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<tr>
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<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>
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<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
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<td>NCA</td>
<td>National Cemetery Administration</td>
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</tr>
<tr>
<td>NHPA</td>
<td>National Historic Preservation Act</td>
</tr>
<tr>
<td>NO₂</td>
<td>Nitrogen Dioxide</td>
</tr>
<tr>
<td>NOₓ</td>
<td>Nitrous Oxides</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
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<td>---------</td>
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</tr>
<tr>
<td>NOA</td>
<td>Notice of Availability</td>
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<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
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<td>National Pollution Discharge Elimination System</td>
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<td>NPS</td>
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<td>Natural Resources Conservation Service</td>
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<tr>
<td>O₃</td>
<td>Ozone</td>
</tr>
<tr>
<td>OCFM</td>
<td>VA Office of Construction and Facility Management</td>
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<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>
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<tr>
<td>PM</td>
<td>Particulate Matter</td>
</tr>
<tr>
<td>ROG</td>
<td>Reactive Organic Gases</td>
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<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>
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<tr>
<td>SHOP</td>
<td>Serious Habitual Offender Program</td>
</tr>
<tr>
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<td>State Historic Preservation Officer</td>
</tr>
<tr>
<td>SIP</td>
<td>State Implementation Plan</td>
</tr>
<tr>
<td>SO₂</td>
<td>Sulfur Dioxide</td>
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<tr>
<td>SOₓ</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>
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<tr>
<td>SWPPP</td>
<td>Stormwater Pollution Prevention Plan</td>
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<tr>
<td>UMAM</td>
<td>Uniform Mitigation Assessment Method</td>
</tr>
<tr>
<td>USACE</td>
<td>U. S. Army Corps of Engineers</td>
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<td>USC</td>
<td>United States Code</td>
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<td>United States Department of Agriculture</td>
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<td>U.S. Environmental Protection Agency</td>
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<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
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<td>USGS</td>
<td>United States Geological Survey</td>
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<tr>
<td>VA</td>
<td>U.S. Department of Veterans Affairs</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compound</td>
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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). The 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, the 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, the VA selected and purchased the City Site. In 2007, the 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 Master Plan also identified where environmental protection areas would be located throughout the property.

Following completion of the 2007 Master Plan, the 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 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/maintenance building, public information center, committal service shelters, a main entrance, drainage/stormwater management system, and utility connections. The Phase 1 cemetery is anticipated to reach full burial capacity within the next several years.

As a result, the VA in 2016 identified the need for 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 cemetery 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 the VA. Therefore, in compliance with the VA’s Implementing Regulations for the National Environmental Policy Act (NEPA), the 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 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; and extend 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 the VA must evaluate the potential environmental impacts of VA facilities, operations, and related funding decisions prior to taking action. The 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
1.1 Purpose and Need

The purpose of the Proposed Action is to ensure there is sufficient burial capacity available at the Jacksonville National Cemetery to enable the NCA to continue providing interment benefits to eligible Veterans and their families by further extending the longevity of the Jacksonville National Cemetery in northern Florida.

The Proposed Action is needed because the current interment capacity at the Jacksonville National Cemetery is limited to the Phase 1 development, and this 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 another National Cemetery located outside of northern Florida. The Veterans and their families would be required to travel to the nearest National Cemetery, which is the Cape Canaveral National Cemetery located 150 miles south, 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.

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. This 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, an entrance area, an administration and public information center, a maintenance complex, a flag assembly area, a memorial walkway, two committal service shelters, and stormwater retention ponds.

As of March 2018, approximately 14,900 interments have been completed within the Phase 1 portion of the Jacksonville National Cemetery. However, interment areas within the Phase 1 cemetery are limited 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 expansion area is approximately 45 acres and is located within the approximately 200-acre...
Phase 2 development boundary identified in the 2007 Master Plan. The area is located to the east of the Phase 1 cemetery. The proposed expansion area and the majority of the Phase 2 development area is currently leased by the VA to a local cattle rancher for use as pasture land. The proposed expansion 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 expansion area are provided in Section 3.

1.3 Jacksonville National Cemetery Regulatory Planning History

An Environmental Assessment (EA) was completed by the VA in May 2006 to evaluate the physical, biological, and cultural resources effects of developing a new National Cemetery at one of two sites (“City Site” or “Wright Site”) along Lannie Road in Jacksonville, Florida. Following completion of the 2006 Final EA, the VA selected and purchased the City Site, developed the phased Master Plan, and 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 Master Plan. The mitigation requirements described in the following permit discussions are excerpted from these permits.

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 the 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 (Appendix A).

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 the 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 the 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 and within the 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 expansion area, the 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 the 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) Permit would be required from the FDEP.

1.3.4 Summary of Remaining Mitigation Requirements

The Proposed Action 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 the 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 the 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 expansion.

The 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 the 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 the 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 the VA’s NEPA guidance (VA, 2010). The decision to be made is whether—having considered the potential physical, environmental, cultural, and socioeconomic effects—the 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 the specific elements of the Proposed Action:

- Grading and filling – The elevation of the proposed development area would be raised using suitable fill material imported from an off-site borrow. The graded, finished elevation would prevent flooding of burial areas and roadways and allow runoff to be directed toward the new and existing stormwater retention basin.

- Columbarium – 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 capacity would be 5,560.

- In-Ground Burial Section – Burial sections for in-ground cremains and 8,050 pre-placed crypts would be graded and separated from other interment areas using landscaped vegetation. Capacity would be approximately 18,460, which includes 250 Traditional Burial options.

- Roadways – A new roadway would be constructed to connect the new burial sections to the existing Phase 1 cemetery roadway. The roads would connect near the northeastern section 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 can park on the roadway shoulders adjacent to burial sections.

- Irrigation and Landscaping – The current on-site irrigation utility would be extended to support the new landscaping within the expansion area. Irrigation water would continue to be supplied by surface water obtained from existing and new 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).

- **Stormwater Management** – the Proposed Action would expand the existing Phase 1 stormwater retention pond by approximately 3 acres, and create a new stormwater retention basin in the central portion of the expansion area. These expanded and new stormwater retention ponds would have sufficient capacity to contain stormwater runoff from new impervious surfaces, primarily associated with the new roadway.

As part of the design process, the 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 Florida Department of Environmental Protection (FDEP) National Pollution Discharge Elimination System (NPDES) 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 expansion area (see Figure 4). The limits of the proposed expansion 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 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 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), the VA will mitigate for these impacts by creating approximately 27.97 acres of wetland on the 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, the VA will conduct the monitoring required to demonstrate permit compliance.

- **Avoidance and Protection of Listed Species** – Prior to construction, the VA will conduct surveys for gopher tortoises and eastern indigo snakes. If present within the development boundary, individual animals will be relocated to an approved off-site recipient location.
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, long-term, reasonable access to burial benefits would not be provided to the estimated 400,000 Veterans and their families living 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. 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. This would result in a hardship for the survivors attending the funerals and for grave visitations of deceased Veterans interred in other National Cemeteries, because of the distances between homes and the burial sites. If Veterans and their families must resort to private burials, they are deprived of the honor and privilege bestowed upon them by a grateful nation for their service to their country. Therefore, under the No Action alternative, the distribution of open National Cemeteries in the region would be unequal, and the VA would not comply with the requirements of 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 within the Phase 2 development area is permitted. Therefore, alternatives to the Proposed Action were limited to the number of acres that the proposed expansion could cover within the permitted Phase 2 development area. Based on the 2007 Master Plan, the VA considered developing all areas within the 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.

Regarding the currently proposed 50-acre expansion within the Phase 2 boundary, the 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), as well as on-site surveys of wetlands, biological resources, and soils conducted in June and July 2017.

3.1 Aesthetics

3.1.1 Existing Environment

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 VA’s property; the Phase 1 and Phase 2 cemetery areas are located north of Lannie Road, while cattle grazing pasture and additional mitigation areas are located to the south. Low-density residential developments are present southwest and east of the cemetery. The cemetery is otherwise bordered by wooded undeveloped areas that are located north and south of the cemetery. Undeveloped land is also present within the Northeast Florida Wetland Mitigation Bank, located northwest and northeast of the cemetery.

Timucuan National Ecological and Historic Preserve is located to the northeast of the cemetery. 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 cemetery, 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 site is fenced and similar in appearance to the MCC.

Within the Phase 2 development boundary, but not within the proposed expansion area, is a Model Airplane Flying field managed by the Gateway Radio Control Club under a lease agreement with the 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.

The Jacksonville National Cemetery and the proposed expansion area are not otherwise visible beyond Lannie Road. Viewed from Lannie Road, the expansion area appears as a grass-covered field and forest with no other distinguishing features.

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. However, 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. 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 place mud/dirt on Lannie Road, which can lead to nuisance concerns about the impact that the VA’s construction activities are causing to the appearance of the local roadways. However, the potential for fugitive dust emissions and roadway effects would be limited by using water trucks to prevent dust emissions, and installing gravel-covered access roads to remove dirt from the tires of vehicles leaving the construction area. Additionally, construction vehicles would not normally travel through the Phase 1 cemetery. Instead, access to the expansion area construction zone would be from the gravel road located just beyond the eastern border of the expansion area.

Therefore, considering the constructed viewshed obstructions, retention of existing tree-lined borders, and incorporation of construction best management practices to reduce dust generation, construction impacts would be short-term, minor, and less-than-significantly adverse on aesthetics.

The management practices to limit and further reduce potential construction-related impacts are summarized in Section 5.0 in 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). 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°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. Electrical power to the existing structures is supplied by the local utility service. 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. As described in Section 3.1, construction Best Management Practices (BMPs) generally including water or chemical dust suppression and a gravel-covered access road would be implemented to reduce fugitive dust generation and prevent it from becoming airborne.

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)(^1)</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>

\(^1\) 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) (tons/year)(^2)</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)</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>Equipment1 and Chemical</th>
<th>ROG (lbs/hr)</th>
<th>CO (lbs/hr)</th>
<th>NOx (lbs/hr)</th>
<th>SOx (lbs/hr)</th>
<th>PM2.5 (lbs/hr)</th>
<th>CO2 (lbs/hr)</th>
<th>CH4 (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 PM2.5 and PM10

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

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Total Hours</th>
<th>ROG (total pounds)</th>
<th>CO (total pounds)</th>
<th>NOx (total pounds)</th>
<th>SOx (total pounds)</th>
<th>PM (total pounds)</th>
<th>CO2 (total pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graders</td>
<td>6,272</td>
<td>658.21</td>
<td>3,645.31</td>
<td>4,526.60</td>
<td>9.38</td>
<td>222.64</td>
<td>832,564</td>
</tr>
<tr>
<td>Tractors/Loaders/Backhoes</td>
<td>18,816</td>
<td>964.78</td>
<td>6,861.50</td>
<td>6,267.18</td>
<td>14.58</td>
<td>355.64</td>
<td>1,256,856</td>
</tr>
<tr>
<td>Rubber Tired Dozers</td>
<td>6,272</td>
<td>1,469.55</td>
<td>5,530.98</td>
<td>11,411.18</td>
<td>15.38</td>
<td>462.42</td>
<td>1,499,555</td>
</tr>
<tr>
<td>Total Pounds (over 18 months)</td>
<td>--</td>
<td>3,093</td>
<td>16,038</td>
<td>22,205</td>
<td>39.3</td>
<td>1,041</td>
<td>3,588,975</td>
</tr>
<tr>
<td>Total Tons (over 18 months)</td>
<td>--</td>
<td>1.5</td>
<td>8.0</td>
<td>11.1</td>
<td>0.02</td>
<td>0.5</td>
<td>1,794</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. Excess soil obtained from creating the stormwater retention pond areas 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, and limiting vehicle speed limits within the construction area. These minimization opportunities are described in Section 5.0.

Operation. Operational sources of air emissions would include vehicles visiting the new expansion area and maintenance vehicles (mowers, backhoes, etc.). 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.

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 greater distances beyond the northeastern Florida region to reach another National Cemetery in Florida.
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 the 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 the VA would need to make contingency plans should any artifacts or remains be uncovered during construction.

During the 2006 Final EA, the 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, the 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, the VA mailed letters to request concurrence or input from the SHPO and two federally-recognized Native American tribes, the Miccosukee 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 by confirming that the Jacksonville Florida 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 Florida National Cemetery (see Appendix B). On August 14, 2018, the VA mailed the requested information to the Seminole Tribe of Florida. No further correspondence from the Seminole Tribe of Florida has been received to date. Any additional correspondence with either Native American Tribe will be documented in the Final SEA.
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 archeological 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, the VA shall cease all activities involving subsurface disturbance in the vicinity of the discovery and contact the FDHR. 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.

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.
Figure 5. Sinkhole map
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.

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.
Figure 6. Slope analysis map
Figure 7. Soil map

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Soil Description</th>
<th>Drainage Class</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Massicot Fine Sand, 0 to 2 Percent Slopes</td>
<td>Poorly Drained</td>
<td>53.35</td>
</tr>
<tr>
<td>58</td>
<td>Pelham Fine Sand, 0 to 2 Percent Slopes</td>
<td>Poorly Drained</td>
<td>41.21</td>
</tr>
<tr>
<td>66</td>
<td>Surrency Luver Fine Sand, Depressional, 0 to 2 Percent Slopes</td>
<td>Very/ Poorly Drained</td>
<td>6.25</td>
</tr>
<tr>
<td>82</td>
<td>Pelham Fine Sand, Depressional, 0 to 2 Percent Slopes</td>
<td>Poorly Drained</td>
<td>2.32</td>
</tr>
<tr>
<td>5</td>
<td>Etc.</td>
<td></td>
<td>46.10</td>
</tr>
</tbody>
</table>

Source: USDA-NRCS Soils (2015) and Etc. Aerial Photograph Base Map

Legend
- Proposed Expansion: 46.10 acres
- USDA-NRCS 2015 Soils
  - Hydric Soils

Figure 7: USDA-NRCS Soils
Supplemental Environmental Assessment
U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion
4083 Lannie Road Jacksonville, FL 32216 (Duval County)
Table 6. USDA-NRCS Soils within the Proposed Action Area

<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.

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 elevation (placement of fill material) to avoid flooding within burial areas and the roadway. The topography of the raised elevation would generally remain flat, with gentle grading to direct stormwater runoff away from burial areas and roadways, and toward the new and/or existing stormwater retention basins. Both the current grade and the proposed grade are relatively flat. Therefore, the overall change in topography due to the Proposed Action would be evident and permanent, but the impact of this change would be minor and less-than-significantly adverse.

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.

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. BMPs will also include measures to prevent dust emissions from disturbed soil at each expansion area and on construction vehicles leaving and entering each work area.

These potential adverse effects during construction would be prevented or minimized to less-than-significant levels through utilization of appropriate erosion and sedimentation BMPs, adherence to the terms of the FDEP NPDES General Permit for Construction Activity, and continuation of the existing SJRWMD Environmental Resource Permit (ERP) requirements (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.

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

Source: FDEP Drainage Basins; 2007

Legend
- Proposed Expansion 46.10 acres
- Jacksonville National Cemetery
- Drainage Basins (FDEP)

1 inch = 4.167 feet
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). 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 Phase 1 stormwater retention basin to the Phase 1 preservation area (Figure 4). The existing 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 Section 1.3. The existing surface water drainage canal located along the southern border of the 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 and/or the man-made drainage canal along the southern border of the 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 for soils under Section 5.1.
- 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 newly constructed stormwater retention basin and/or the Phase 1 basins. The new stormwater retention basins will be designed with sufficient capacity to accommodate the stormwater runoff volume generated within the expansion area. 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 present at or near the 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 is likely to 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 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.

The depth to water table within the site varies based on the soil types (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. Adverse impacts to groundwater could be minimized by timing construction activities outside the wet season when areas of the site are inundated with water. Additionally, construction equipment would be maintained in good working order to reduce the potential for fluid releases, and spill kits will 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 at an elevation 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 the 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 7. Listed Species Potentially Occurring within 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>Asclepias viridula</td>
<td>Southern Milkweed</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Balduina atropurpurea</td>
<td>Purple Honeycomb-head</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Calopogon multiflorus</td>
<td>Many-flowered Grass-pink</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Coreopsis integrifolia</td>
<td>Ciliate-leaf Tickseed</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Cientium floridanum</td>
<td>Florida Toothache Grass</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Matelea floridana</td>
<td>Florida Spiny-pod</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Pycnanthemum floridanum</td>
<td>Florida Mountain Mint</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Rudbeckia nitida</td>
<td>St. John’s Blackeyed Susan</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Sideroxylon alachuense</td>
<td>Silver Buckthorn</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Verbesina heterophylla</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>Gopherus polyphemus</td>
<td>Gopher Tortoise</td>
<td>C</td>
<td>T</td>
</tr>
<tr>
<td>Drymarchon corais couperi</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>Cistothorus palustris griseus</td>
<td>Worthington’s Marsh Wren</td>
<td>NL</td>
<td>SSC</td>
</tr>
<tr>
<td>Egretta caerulea</td>
<td>Little Blue Heron</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Mycteria americana</td>
<td>Wood Stork</td>
<td>T</td>
<td>NL</td>
</tr>
<tr>
<td>Picoides borealis</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>Haliaeetus leucocephalus</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 pond 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, the 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 the 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, the 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 the VA will adhere to this coordination commitment, the Proposed Action would not adversely affect the gopher tortoise and associated 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.

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 5 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. As such, operation of the Proposed Action would result in short-term, direct, less-than-significant adverse noise impacts on the aforementioned receptors.

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, the 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 the 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 of the Jacksonville National Cemetery. Accordingly, developing the land as a 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

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
Wetlands

In 2008, field surveys were conducted on behalf of the 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 the VA by 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).

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 the 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 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, the 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. The Proposed Action is also designed for surface water runoff to flow into the new or existing stormwater retention basin and therefore avoid 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 stormwater retention basin.

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

**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 of what is now the Jacksonville National Cemetery was consistent with the Coastal Zone Management Program. However, the draft SEA will be sent for review to the FDEP to confirm the Proposed Action remains consistent with the Coastal Zone Management Program.

**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>Table 8. Demographic Data for the State of Florida and Duval County</th>
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<tbody>
<tr>
<td><strong>Location</strong></td>
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<tr>
<td>----------------</td>
</tr>
<tr>
<td>Duval County</td>
</tr>
<tr>
<td>State of Florida</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>Table 9. Economic Data for the State of Florida and Duval County</th>
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<tbody>
<tr>
<td><strong>Location</strong></td>
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</tr>
<tr>
<td>Duval County</td>
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<tr>
<td>State of Florida</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. The VA would contract a qualified firm to construct the cemetery expansion. Constructing the cemetery expansion would require employment of skilled and non-skilled labor during the approximately 18-month work period, as well as 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 the 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. Typically, hazardous materials are brought on-site by contractors on an as-needed basis for activities such as pest control and weed management.

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. Cleared vegetation would be transported off-site for composting. Excess construction material 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 less 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.

Staging and operation of construction equipment within the proposed expansion area carries an increased potential for incidental releases of operating fluids and chemicals. Construction contractors would be required to perform appropriate scheduled vehicle inspections and maintenance to reduce the potential for releases, and to maintain and deploy on-site spill kits immediately upon the occurrence of a release.

Additionally, construction contractors would be required to comply with the 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. Hazardous materials used during operation would be limited to any approved pesticides and/or herbicides applied 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.

### 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 (PIC) 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, 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 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.

**Operation.** During operation of the Proposed Action, vehicles would access the new burial areas from the existing main entrance roadway, 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.

No new parking areas would be created; visitors would continue to be allowed to park on grass-covered roadway shoulders within the cemetery. Operation of the cemetery extension would not generate a measurable increase in traffic from visitors on roadways within and in the vicinity of 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 Access Road (excerpted from Figure 2-3 in the Final EA for the Jacksonville National Cemetery Access Road, October 2018)
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. The current interior irrigation water lines would be extended to the new burial sections, or new lines would be constructed to allow the new stormwater retention basins to be used to irrigate the newly landscaped areas during operation. Neither activity will cause an interruption in the current 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.

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 newly landscaped areas in the expansion area. The irrigation water would be supplied from the existing and/or new 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. Therefore, operation of the Proposed Action would have a short-term, direct, less-than-significant adverse impact on utilities.

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 Population¹</th>
<th>% Minority Population¹,²</th>
<th>% Population below Poverty Level³</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

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, 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 avoiding the need for Veterans, their families, and visitors 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 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 the 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 the 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 the 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, cumulative impacts are not anticipated because the VA has constructed and operated dozens of similar National Cemeteries and expansions without resulting in cumulative impacts; this is primarily due to the 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. topographical ground elevation, landscaping), 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 impacts above a less-than-significant level on the 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). However, on a cumulative basis, this impact and others associated with the No Action alternative are not anticipated to generate additional adverse impacts or 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

The 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.

4.1 Federal, State, and Local Agency Coordination

The VA will mail letters to the following agencies to inform them of the availability of the Draft SEA and to solicit their comments during a 30-day review period. Responses from agencies will be documented and addressed in the Final SEA.

- U.S. Fish and Wildlife Service
- USEPA – Region 4
- U.S. Army Corps of Engineers, North Florida Area Office
- U.S. Department of Agriculture, Natural Resources Conservation Service
- 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)
- City of Jacksonville, Mayor

4.2 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, the 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 the VA’s request for input during development of the Draft SEA. The VA will notify and request input from the two Native American Tribes at the start of the 30-day comment period on the Draft SEA. Any comments received from Native American Tribes will be addressed and documented in the Final SEA.

4.3 Public Involvement

The VA, as the federal proponent of the Proposed Action, will make the Draft SEA available for a 30-day review and comment period. The start of the comment period and the process to obtain a copy of the Draft SEA will be announced in a Notice of Availability (NOA) published in the *Florida Times-Union*, a daily newspaper that covers the Jacksonville region. The Draft SEA will be published and available for review at the Jacksonville National Cemetery, the Jacksonville Public Main Library at 303 North Laura Street, Jacksonville, Florida, 32202, and available for electronic download from the VA website at http://www.cem.va.gov/cem/EA.asp.

Comments received during the 30-day public review will be addressed and documented in the Final SEA. Public comments and an affidavit of publication of the NOA will be included in Appendix D.
5 BEST MANAGEMENT PRACTICES AND PERMITTING

5.1 Best Management Practices

The Proposed Action incorporates the following best management practices, impact minimization techniques, required commitments, and monitoring opportunities to maintain the impacts to the environmental resources documented in this SEA at less-than-significant adverse levels.

**AESTHETICS**

**Construction**

- Control fugitive dust emissions through routine construction BMPs, including covering haul trucks and minimizing construction vehicle speeds entering and exiting the site and within the site.
- As needed, install view-restricting fencing between the expansion area and the existing cemetery burial sections to reduce visual impacts to visitors.

**Operation**

- Plant native, non-invasive vegetation and professionally maintain the landscaped areas consistent with existing cemetery operations.
- Maintain the cemetery entrance and grounds, and conduct maintenance activities (mowing, etc.) on a schedule that limits potential disruptions to committal services.

**AIR QUALITY**

**Construction**

- Use appropriate dust control methods during construction activities, including but not limited to water sprays, chemical soil additives, and wheel washers (at gravel entrance areas).
- Suspend construction activities during periods of sustained high winds to avoid releasing dust to the air.
- Reduce vehicle speeds to reduce dust generated by vehicles and equipment on unpaved surfaces.
- Turn off construction vehicles when not in use or idling more than five minutes.

**Operation**

- Keep landscaping and maintenance equipment (mowers, power washers used to clean monuments, etc.) in good working order.

**CULTURAL RESOURCES**

**Construction and Operation**

- 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 the VA, a qualified archaeologist, the State Historic Preservation Officer (SHPO), and Native American Tribes are contacted to properly identify and appropriately treat discovered items in accordance with applicable federal and state regulations.

**GEOLOGY, SOILS, AND TOPOGRAPHY**

**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) General Permit for Construction Activity and the SJRWMD Environmental Resource Permit (ERP) (Chapter 62-330, FAC).

• To reduce soil erosion and sedimentation, design the expansion area to 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).

• Likewise, design the Proposed Action to comply with EISA Section 438 to the maximum extent technically feasible.

• 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.

• Re-use excess soils 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, Soils, and Topography.

• 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.

• 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.

• 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 and SOPs.

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 the 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.

• If warranted, prior to construction, the VA will implement Gopher Tortoise permitting, mitigation, and relocation actions according to the FWC Guidelines (FWC, 2017).

• The VA will incorporate the Standard Protection Measures for the Eastern Indigo Snake (USFWS, 2013) in the Proposed Action construction plans. Additionally, the VA will excavate all possible underground refugia (i.e., gopher tortoise burrows) prior to commencing construction.

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.

• Maintain mufflers on construction equipment and shut down construction equipment when not in use.

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 the Jacksonville National Cemetery environment during these services.

FLOODPLAINS, WETLANDS, AND COASTAL ZONE MANAGEMENT

Construction and Operation

• 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

• Maintain spill kits to rapidly respond to and limit impacts from accidental releases of equipment fluids or chemicals. Report releases of regulated quantities of regulated chemicals to the VA and FDEP. Perform cleanup according to applicable regulatory requirements.

Operation

• Perform proper vehicle maintenance and routine inspections to reduce the potential for incidental releases of vehicle and equipment fluids or chemicals.

• Manage solid wastes in designated areas and establish routine pickup and disposal to appropriate landfill facilities by qualified vendors.
### TRANSPORTATION AND PARKING

**Construction**
- If required, utilize flaggers to notify oncoming traffic of slower construction vehicles entering or exiting Lannie Road from the construction entrance.
- Route construction vehicle traffic away from roadways within the existing cemetery to avoid interfering with committal service processions.

**UTILITIES**

**Operation**
- Utilize the existing and/or new stormwater retention basin system to supply irrigation water, and implement VA’s water conservation design guidelines and SOPs.

Implementation of the above BMPs will be driven by the permitting requirements outlined in the permit matrix detailed in Section 5.2 below.
## 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)</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></td>
</tr>
<tr>
<td>Section 404 Water Quality Certification (Clean Water Act)</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>This certification will be issued with the ERP listed above.</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>NPDES Construction Stormwater Permit /Stormwater Pollution Prevention Plan (SWPPP)</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>
<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, Program and Project Manager  
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>
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<tr>
<td>K. Benbow, MS</td>
<td>Subject-Matter Expert, Document Preparation</td>
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<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>
7 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$_{10}$, PM$_{2.5}$**: 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$_{10}$ includes only those particles equal to or less than 10 micrometers (0.0004 inch) in diameter; PM$_{2.5}$ 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 Comments
February 9, 2009

Veterans Affairs, National Cemetery Administration
810 Vermont Ave NW
Washington, DC 20420

SUBJECT: Formal Wetland Determination
Petition Number 16-031-112145-1, Duval County

Dear Sir/Madam:

Enclosed is your Formal Wetland Determination as authorized by the staff of the St. Johns River Water Management District on February 9, 2009. This determination will expire on February 9, 2014.

Issuance of this wetland determination does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies or the District for construction on the property.

In the event you sell your property, the determination can be transferred to the new owner, if we are notified by you within thirty days of the sale. Please assist us in this matter so as to maintain a valid determination for the new property owner.

Thank you for your cooperation and if this office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

Quenteria Johnson, Regulatory Information Manager
Division of Regulatory Information Management

cc: District Permit File

Agent: Environmental Services
7220 Financial Way, Suite 100
Jacksonville, FL 32256
FORMAL WETLAND DETERMINATION

CHAPTER 40C-4.042, F.A.C.

PETITION NO. 16-031-112145-1
PROJECT NAME: VA Cemetery

DATE ISSUED: February 9, 2009

DETERMINATION STATEMENT:

The formal determination of the landward boundary of wetlands and other surface waters as defined by the District and as depicted on the certified survey (s) stamped approved by the District 17 December 2008. The 546.29-acre project site is located along the north and south sides of Lannie Road approximately three miles northeast of the intersection of Lem Turner Boulevard and Lannie Road on the north side of Jacksonville, Duval County. More specifically the site is located in a portion of section 38 of the Charles Seton grant, section 40 of the William Gibson and others grant, and section 41 of the William Gibson and others or Charles Seton grant, township 2-north, and range 26-east, Duval County, together with a portion of section 39 of the Charles Seton grant, section 40 of the William Gibson and others or Charles Seton grant, and section 41 of the William Gibson and others grant, township 1-north, and range 26-east, Duval County.

LOCATION:

Section(s): 40, 41, 38, 40, 41
Township(s): 1N, 2N
Range(s): 26E, 26E

Duval County
Veterans Affairs, National Cemetery Administration
810 Vermont Ave NW
Washington, DC 20420

This document and the enclosed survey serve as the Chapter 40C-4.042, F.A.C., Formal Wetland Determination issued by the St. Johns River Water Management District. This determination is a legal document and should be kept with your other important records. The District may transfer this determination after the receipt of written notification of transfer of ownership or control of the real property.

This formal wetland determination is binding for a period of five (5) years from the date of this determination provided physical conditions on the property do not change so as to alter the wetland boundaries during that period. The District's Governing Board may revoke the Formal Wetland Determination upon finding that the petitioner has submitted inaccurate information to the District. This determination is not a permit and does not authorize any construction.

AUTHORIZED BY: St. Johns River Water Management District

By: Kenneth A. John, Assistant Director
By: Kirby B. Green, III, Executive Director
Notice Of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-six (26) days of the District depositing notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing notice of District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 5 below. Mediation pursuant to Section 120.573, Florida Statutes, is not available.

2. If the Governing Board takes action that substantially differs from the notice of District decision, a person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the District, but this request for administrative hearing shall only address the substantial deviation. Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) at the office of the District Clerk at the mail/street address or email address described in paragraph no. 1 above, within twenty-six (26) days of the District depositing notice of final District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of final District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of final District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. Mediation pursuant to Section 120.573, Florida Statutes, is not available.

3. A person whose substantial interests are or may be affected has the right to a formal administrative hearing pursuant to Sections 120.569 and 120.57(1), Florida Statutes, where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal hearing must also comply with the requirements set forth in Rule 28-106.201, Florida Administrative Code.

4. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.
Notice Of Rights

5. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida. Petitions received by the District Clerk after 5:00 p.m., or on a Saturday, Sunday, or legal holiday, shall be deemed filed as of 8:00 a.m. on the next regular District business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at www.sjrwmd.com. These conditions include, but are not limited to, the petition being in the form of a PDF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.

6. Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).

7. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District's final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.

8. A person with a legal or equitable interest in real property who believes that a District permitting action is unreasonable or will unfairly burden the use of their property, has the right to, within 30 days of receipt of the notice of District decision regarding a permit application, apply for a special magistrate proceeding under Section 70.51, Florida Statutes, by filing a written request for relief at the Office of the District Clerk located at District Headquarters, P. O. Box 1429, Palatka, FL 32178-1429 (4049 Reid St., Palatka, FL 32177). A request for relief must contain the information listed in Subsection 70.51(6), Florida Statutes. Requests for relief received by the District Clerk after 5:00 p.m., or on a Saturday, Sunday, or legal holiday, shall be deemed filed as of 8:00 a.m. on the next regular District business day.

9. A timely filed request for relief under Section 70.51, Florida Statutes, tolls the time to request an administrative hearing under paragraph nos. 1 or 2 above. (Paragraph 70.51(10)(b), Florida Statutes). However, the filing of a request for an administrative hearing under paragraph nos. 1 or 2 above waives the right to a special magistrate proceeding. (Subsection 70.51(10)(b), Florida Statutes).

10. Failure to file a request for relief within the requisite time frame shall constitute a waiver of the right to a special magistrate proceeding. (Subsection 70.51(3), Florida Statutes).
Notice Of Rights

11. Any person whose substantial interests are or may be affected who claims that final action of the District constitutes an unconstitutional taking of property without just compensation may seek review of the action in circuit court pursuant to Section 373.617, Florida Statutes, and the Florida Rules of Civil Procedures, by filing an action in circuit court within 90 days of rendering of the final District action, (Section 373.617, Florida Statutes).

12. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.

13. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 373, Florida Statutes, may seek review of the order pursuant to Section 373.114, Florida Statutes, by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy on the Florida Department of Environmental Protection and any person named in the order within 20 days of the rendering of the District order.

14. A District action is considered rendered, as referred to in paragraph nos. 11, 12, and 13 above, after it is signed on behalf of the District, and is filed by the District Clerk.

15. Failure to observe the relevant time frames for filing a petition for judicial review as described in paragraph nos. 11 and 12 above, or for Commission review as described in paragraph no. 13 above, will result in waiver of that right to review.
Notice Of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent by U.S. Mail to:

Veterans Affairs, National Cemetery Administration
810 Vermont Ave NW
Washington, DC 20420

At 4:00 p.m. this 11th day of February, 2009.

Gloria Lewis, Director

Division of Regulatory Information Management
St. Johns River Water Management District
Post Office Box 1429
Palatka, FL 32178-1429
(386) 329-4152
Appendix B – Regulatory Communications
June 05, 2018

Glenn Elliott
Program/Project Manager
Office of Construction & Facilities Management
Phone: 202-632-5879
Email: Glenn.Elliott@va.gov

Subject: Dept. of Veterans Affairs Jacksonville National Cemetery Expansion, Duval County FL
THPO #: 0030846

Dear Mr. Elliott,

Thank you for contacting the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO) regarding the Dept. of Veterans Affairs Jacksonville National Cemetery Expansion, Duval County FL. The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the documents provided and would respectfully like to request some additional information. We would respectfully like to request a copy of the Cultural Resources Assessment Surveys that were conducted for the project area so that we may complete our assessment pursuant to Section 106 of the National Historic Preservation Act and 36 CFR 800.

Thank you and feel free to contact us with any further questions.

Glucksman Andrew
Respectfully,

[Signature]

Victoria L. Menchaca, MA, Compliance Review Specialist
STOF-THPO, Compliance Review Section
30290 Josie Billie Hwy, PMB 1004
Clewiston, FL 33440
Office: 863-983-6549 ext 12216
Email: victoriamenchaca@semtribe.com
Web: www.stofthpo.com
June 20, 2018

Victoria L. Menchaca, MA
Compliance Review Specialist
STOF-THPO, Compliance Review Section
Phone: (863) 983-6549 ext 12216
Email: victoriamenchaca@semtribe.com

Subject: Dept. of Veterans Affairs Florida National Cemetery Expansion, Sumter County, FL
THPO #: 0030848

Dear Ms. Menchaca,

The U.S. Department of Veterans Affairs (VA) National Cemetery Administration (NCA) thanks you for your comments and request for additional information regarding the Florida National Cemetery Expansion, Sumter County, FL. Please find the following enclosed materials in support of your review:

- A topographic map outlining the project site;
- A detailed description of the Affected Environment (Cultural Resources and Archaeological Resources);
- A detailed description of the Affected Environment (Cultural Resources and Archaeological Resources) from the Final Environmental Impact Statement dated April 1983;
- A Reconnaissance Level Survey conducted 1983;
- A Site Characteristics Report conducted by SouthArc, Inc. in 2005;
- A letter from the Advisory Council on Historic Preservation, 1982; and
- A letter dated May 18, 2018 from the DHR and State Historic Preservation Officer.

The VA wishes to ensure that issues of concern are addressed and welcomes any comments you may have about the proposed action. Please contact: 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, via email to glenn.elliott@va.gov, or by telephone at (202) 632-5879.

Sincerely,

Glenn Elliott, Program/Project Manager
U.S. Department of Veterans Affairs
Office of Construction & Facilities Management

Enclosure(s)
Figure 1. Site location map
Figure 2. 2007 Master Plan for the Jacksonville National Cemetery
Figure 3. Aerial photo of the proposed expansion area
1.1 Cultural Resources

1.1.1 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 (DHR) 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 the 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; this was concurred by the Florida DHR in a letter dated March 13, 2006. However, Florida DHR stated that historical or pre-historical artifacts or unmarked human remains might be uncovered, and that the VA would need to make contingency plans should any artifacts or remains be uncovered during construction.

During the 2006 Final EA, the VA contacted the Florida Governors' 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.

As part of the current NEPA evaluation for the proposed expansion, the VA has requested input from the two federally-recognized tribes, Miccosukee Tribe of Indians and the Seminole Tribe of Florida, as required by NEPA, NHPA, the Native American Graves Protection and Repatriation Act (NAGPRA), and Executive Order (EO) 13175. The VA sent a letter to these tribes for comment regarding the Proposed Action. The Responses will be addressed and incorporated into the Final SEA.

1.1.2 Environmental Consequences

The Section 106 Criteria for Adverse Effect (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.
1.1.2.1 Proposed Action

Construction. Based on the prior cultural resources investigations, no archeological sites or historic properties are known to exist at the Jacksonville National Cemetery. Therefore, the VA concludes that the Proposed Action will not have an adverse effect on any cultural resources. If human remains or other cultural items as defined by NAGPRA be discovered during construction of any phase of the Proposed Action, the construction contractor will immediately cease work until the VA, a qualified archaeologist, the Florida DHR, and the two federally-recognized Native American Tribes are contacted to properly identify and appropriately treat discovered items in accordance with applicable state and federal law(s). Likewise, should any other cultural or historic artifacts or resources become uncovered during construction during any phase of the Proposed Action, ground-disturbing activities will cease, and the Construction Supervisor will immediately contact the VA for guidance on the next steps to be taken.

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.

1.1.2.2 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.
The USEPA published final rules on general conformity (40 CFR Parts 51 and 93 in the Federal Register on November 30, 1993) that apply to federal actions in areas designated in nonattainment for any of the criteria pollutants under the CAAA. Since the potential cemetery sites are in an attainment area, the rule does not apply.

### 3.7 Noise

Because of the quasi-rural character of the two potential cemetery sites, noise levels are low. Primary noise sources are motor vehicles on Lannie Road and aircraft taking off and landing at Jacksonville International Airport. Noise impacts from both sources are a minor consideration. Traffic on Lannie Road is light, and most of the City Site, as well as the Wright Site in its entirety, are far removed from the roadway. Both sites also are far enough from the airport for aircraft noise to be negligible. Model aircraft flown from the model airfield currently on the City property are another source of intermittent noise. However, it is limited to the area immediately around the model airfield.

### 3.8 Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires federal agencies to integrate consideration of historic preservation issues into the early stages of their planning projects. Under Section 106, the head of any federal agency having direct or indirect jurisdiction over a proposed federal or federally financed undertaking is required to account for the effects of this action on any district, site, building, structure, or object that is included or eligible for inclusion in the National Register of Historic Places (NRHP). Eligibility determinations are based on the criteria summarized in Table 3-4.

The Florida Department of State’s Division of Historical Resources (DHR) is the designated State Historic Preservation Office (SHPO) in charge of administering Section 106. The SHPO must be consulted about any potential adverse effects from a federal action to protected architectural or archaeological resources. If adverse effects are expected, appropriate mitigation measures must be developed, also in cooperation with the SHPO.

The first step in the Section 106 review process is to determine whether any protected cultural resources that might potentially be affected by the proposed action exist in the area. Only resources fully or partially located on either of the two cemetery sites being considered could be potentially affected. Therefore, the area of potential effect (APE) for this proposed action consists of the two potential sites.
Table 3-4
Criteria for Historic Significance

36 CFR 60.4, Part I

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important in prehistory or history.

36 CFR 60.4, Part II

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
C. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or
D. A cemetery which derives its primary significance from graves or persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
G. A property achieving significance within the past 50 years if it is of exceptional importance.
3.8.1 Architectural Resources

3.8.1.1 City Site

As indicated in Section 3.1.1.1, there are only a few structures on the City Site: two small barns or cow sheds, a model airplane flying field, a playground/softball field, and an unoccupied mobile home. None of these structures presents any characteristics that would potentially qualify it for listing in the National Register of Historic Places. In a letter dated May 27, 2005 (included in Appendix A), DHR confirmed that there are no known historic sites on the property. A preliminary cultural resources evaluation conducted by Environmental Services Inc. (ESI), Jacksonville, Florida, confirmed there are no historic structures more than 50 years old present there today (Appendix B).

3.8.1.2 Wright Site

As indicated in Section 3.1.1.2, there are no structures on the Wright Site. In the letter dated May 27, 2005, referenced above, DHR confirmed that there are no known historic sites on the property.

3.8.2 Archaeological Resources

3.8.2.1 City Site

In a letter dated May 27, 2005 (Appendix A), DHR stated that there are no known archaeological sites on the City Property. However, DHR also noted that the property was environmentally similar to other areas in Florida where archaeological resources are known to exist.

Therefore, to further assess the archaeological potential of the property, a preliminary cultural resources evaluation was conducted by ESI. The evaluation consisted of a record search, evaluation of pertinent environmental conditions such as topography and soil types, a walkover survey of the property, and 19 shovel tests throughout the site. A detailed summary of ESI’s report is in Appendix B of this EA.

Based on the results of the evaluation, DVA has concluded that the potential for the site to contain significant archaeological resources is minimal and that no further evaluation is warranted.

3.8.2.2 Wright Site

In a letter dated May 27, 2005 (Appendix A), DHR stated that one known archaeological site was partially located on the Wright Site: Site 8DU161—a revolutionary-era battlefield site. As shown in the map provided by DHR (Appendix A; see also Figure 3 in Appendix B), this site overlaps with the northeast corner of the property, though it is mostly located outside it. There are no other known archaeological sites on the Wright Site. However, DHR also noted that the
property was environmentally similar to other areas in Florida where archaeological resources are known to exist.

ESI addressed the Wright Site in its preliminary cultural resources evaluation. As noted in the report (Appendix B), the site is part of a larger property that ESI had already surveyed for archaeological resources. Following this survey, the property was cleared by the Florida SHPO (letter dated August 24, 2005; see Appendix B). Therefore, DVA has concluded that the Wright Site has minimal archaeological potential and that no further evaluation is warranted.

### 3.9 Natural Resources

#### 3.9.1 Geology, Topography, and Soils

##### 3.9.1.1 Geology

Several geomorphic features have been delineated within Duval County. The largest one is the Eastern Valley, which covers the southeastern part of the county. It is bounded on the west by the Duval Upland and on the north by the St. Mary’s Meander Plain, which makes up the northern part of the county, and within which the two potential cemetery sites are located. The plain was formed from a network of streams with a heavy sediment load that drained the northern part of the county (NRCS, 1998).

Like most of Duval County, the St. Mary’s Meander Plain is underlain by a few tens of feet of undifferentiated Quaternary sediments composed of sands, clayey sand, and clays occasionally containing limited numbers of mollusk shells. These sediments lie on Miocene Hawthorn Group sediments. Lithologic units in this group are the Penney Farms Formation, the Marks Head Formation, and the Coosawhatchie Formation. The bottom of the Hawthorn Group in the northeastern part of the county is found at approximately -420 feet NGVD (National Geodetic Vertical Datum of 1929). The Hawthorn Group in turn sits on the Ocala Limestone, consisting mostly of very pure limestone. Ranging in thickness from 250 to 400 feet, it gets progressively thicker to the northeast. The bottom of the Ocala Limestone in the St. Mary Meander Plain is found at more than -800 feet NGVD (NRCS, 1998).

##### 3.9.1.2 Topography

**City Site**

Elevations at the City Site range from 15 feet in the northeast corner to 20 feet in the center and southeast corner. The site is practically flat. Parts of it are crisscrossed by artificial ditches a few feet deep. Figure 3-3 (Existing Topography – City Site) shows the topography of the City Site.
CULTURAL RESOURCE EVALUATION OF
PROPOSED VA CEMETERY SITES
DUVAL COUNTY, FLORIDA

January 2006

Introduction

The cultural resource staff of Environmental Services, Incorporated (ESI) of Jacksonville, Florida, led by Marsha A. Chance, Senior Archaeologist, recently conducted a preliminary cultural resource evaluation of the proposed V.A. Cemetery tracts located within Duval County, Florida on behalf of Earth Tech, Inc. (Figure 1). This project was conducted to assist the client in determining the archaeological and historical potential of the parcels. The goal of the project was to provide the client with information concerning the relative site probability of the parcels, whether known sites or historic structures occur on the properties, the identification of high site probability areas, and identification of areas where future subsurface testing might encounter archaeological sites. The term "cultural resources" as used herein is meant to refer to sites or objects that are archaeological, architectural, and/or historical in nature. Cultural resources typically consist of historic and prehistoric archaeological sites, as well as structures.

Preliminary background research included a review of state records to determine whether the tracts contained previously recorded archaeological sites; an analysis of soils; and a review to determine proximity to water and tract elevation. The latter are environmental characteristics often associated with the presence of cultural resources.

Of the two tracts, “City Property” and “Wright Property,” one was fully surveyed by ESI in recent months for a separate client and one was subjected to a preliminary evaluation on behalf of Earth Tech. For this reason, the two tracts are described separately in this report.

Background Research

Background research included a review of the archaeological site files maintained by the Florida Master Site File at the Division of Historical Resources (FMSF-DHR), to determine the presence of previously recorded archaeological sites within or near the study area; an examination of United States Department of Agriculture, Soil Conservation Service (USDA-SCS) soil maps for the area; perusal of aerial photographs to identify anomalies, waterways, vegetation patterns, and greatly disturbed areas; and the attainment of familiarity with the USGS topographic map of the project area so that elevation data could be utilized to pinpoint possible site locations. In addition, data regarding past settlement and subsistence patterns within the region were considered.

Environmental Setting

The topography of the project area ranges from 10 to 20 feet above mean sea level (amsl). Examination of the soil map for the area indicates the fact that the tracts contain a variety of soil types, primarily including poorly and very poorly drained soils. The best drained soils are classified as poorly drained. Some of these soil types occur in association with an unnamed creek on the western boundary of the Wright Property and with the floodplain of Thomas Creek. They are illustrated in Figure 2.
Vegetation within the City Property consists of wetland species in the intermittent wetlands throughout the tract, coupled with pasture grasses in the majority of the tract. The natural upland communities have been mostly removed from the tract to create pastures and other agricultural areas. Natural community types in the general area include oak overstories with pine and palmetto understories. Vegetation in the Wright Property consists primarily of planted pines, small areas of hardwood forest and larger areas of wetland vegetation. In this tract vegetation reflects the topography and drainage capacities of the soils upon which they occur.

I. CITY PROPERTY

Project Location

The City Property is generally located south of Thomas Creek and north of Jacksonville International Airport. It lies west of I-95 and is astride Lannie Road. The tract can be found on the Trout River and Italia, Florida, USGS quadrangle maps (photorevised, 1989), in Sections 39 and 40, Township 1 South, Range 25 East.

Results

A review of the archaeological site file records maintained by the Florida Master Site File of the Division of Historical Resources indicated that there are no previously recorded archaeological sites within the tract. However, several sites have been recorded just beyond one mile of the tract. Site 8DU161 was originally recorded as the possible general vicinity location of the Revolutionary War era Thomas Creek Battlefield. This site, as originally plotted, lay northeast of the study area covering a large area of marsh and multiple meanders of Thomas Creek. It is doubtful that the battle site could be in this area, since the environmental character of much of the location is not conducive to human use. Additionally, site 8DU14668 was recorded in 2002 by ESI. Site 8DU15983 was recorded in 2004. In the spring of 2005 ESI conducted a survey of a large tract adjacent to the City Property, and recorded 4 sites, 8DU16190, 8DU16191, 8DU16192 and 8DU16196. All of these sites lie west of the tract, at a distance of one mile to just over one mile from the eastern boundary. ESI found sites 8DU16191 and 16190 to be potentially eligible for listing on the National Register of Historic Places (NR), and evaluated them further in the fall of 2005. Site 8DU16190 had yielded a minor amount of material dating to the time of the Revolutionary War. Additional testing, however, did not yield additional comparable artifacts. Testing at this site included traditional shovel testing, followed by the use of a metal detector and ground penetrating radar, in an effort to locate historic metallic artifacts such as those that might have been associated with battlefield and/or encampment activities. Neither of these sites was found to be eligible for NR listing. All site locations are shown in Figure 3 and site definitions are discussed below.
Table 2. Nearby Sites

<table>
<thead>
<tr>
<th>Site Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8DU161 (gv)</td>
<td>Possible Thomas Creek Battlefield, Revolutionary War</td>
</tr>
<tr>
<td>8DU14668</td>
<td>Prehistoric/Historic scatter; early 19th century</td>
</tr>
<tr>
<td>8DU15983</td>
<td>Historic Campsite (no further description available)</td>
</tr>
<tr>
<td>8DU16190</td>
<td>Historic/prehistoric scatter; 18th to 20th Century; Swift Creek</td>
</tr>
<tr>
<td>8DU16191</td>
<td>Historic/prehistoric scatter; late 19th/early 20th Century</td>
</tr>
<tr>
<td>8DU16192</td>
<td>Prehistoric scatter</td>
</tr>
<tr>
<td>8DU16196</td>
<td>Prehistoric scatter</td>
</tr>
</tbody>
</table>

Prehistoric components were encountered in each of the five sites recorded by ESI but all were minimal. Site 8DU14668 yielded 3 prehistoric and 41 historic artifacts. The former were 3 chert flakes (11-20mm) and the latter were ceramics (9), nails (10), glass (1) and unidentified iron fragments dating to the mid to late 18th century. No features were found.

Site 8DU16190 yielded 33 prehistoric and 11 historic artifacts. The prehistoric assemblage contained 4 Swift Creek (500 BC-AD 750) and 5 plain sherds. A musket ball, a buck shot and a brass button were also recovered, with the button dating from between 1726 and 1776. The Button was indicative of the Revolutionary War era, prompting further site investigation. The second investigation using a metal detector did not yield any additional material related to the appropriate time period.

Site 8DU16191 contained 1 prehistoric chert flake and 24 historic artifacts, including whiteware and Albany slipped stoneware, indicating an 1880 to 1920 range of occupation. A structure is located on the 1918 quadrangle map in this location, and additional work was conducted in the area. Portions of a brick structure were encountered but not found to be NR eligible.

Site 8DU16192 and 8DU16196 each yielded 3 prehistoric chert flakes and no historic material. In both cases, the flakes were all recovered from a single test.

Thus only one site contained diagnostic prehistoric material. The presence of minimal historic scatters indicates minor usage of the area in early times, and the single button dating to the 18th century remains a tantalizing clue.

Preliminary Testing

Archaeological site probability zones are delineated on the basis of soil drainage capacity, elevation, and proximity to water, as well as the occurrence of previously recorded sites. On this basis, it can be concluded that areas of better drained soils, especially when in direct juxtaposition with waterways, might be expected to contain archeological sites. The proposed City Property is not directly adjacent to, nor does it incorporate, any flowing streams or lakes. In addition, it is dominated by soils that are relatively poorly drained. Elevations are also comparatively low. Thus, the tract does not contain any high site probability zones. Medium probability zones can be delineated within the tract based on soil characteristics, but the lack of a nearby water source would not have been conducive to use by prehistoric populations; therefore the possibility of a significant site being present is minimal. Historic settlers may have used the tract, but historic maps do not indicate the presence of historic land grants or of structures on the
property. In addition, there are no historic structures over 50 years old present there today.

In an effort to further evaluate the archaeological potential of the tract, ESI conducted preliminary fieldwork in January of 2006. The study area was subjected to a walkover, and nineteen shovel tests were excavated in the upland portions of the property. The locations of these tests are shown in Figure 4. While these tests were distributed throughout a large area, findings in each case were similar. The water table was encountered in every case, at between 25 and 50 cm below surface. No cultural material was found.

II. WRIGHT PROPERTY

Project Location

The Wright Property is located east and slightly north of the City Property. It is bounded on the north by the Thomas Creek floodplain and has few other geographical or developed features within it or adjacent to it. An unnamed drainage flows along the western boundary into the Thomas Creek wetlands. The tract is found on the Italia, Florida, USGS quadrangle map (photorevised 1989), in Sections 38 and 40, Township 1 South, Range 25 East.

Background Research

Background research for this tract was identical to that described for the City Property.

Results

The archaeological sites discussed previously in relation to the City Property are within one mile of the Wright Property. They occur to the east and southeast of the study area, as shown on Figure 3.

Testing

The Wright Property was initially investigated by ESI in the spring of 2005. It was part of a 3700-acre tract subjected to a cultural resource assessment study. At that time, shovel tests were dug at 25, 50 and 100-meter intervals in site probability area and a pedestrian survey was carried out throughout the tract. All cleared areas, road cuts, eroded banks and other disturbance were investigated for the presence of cultural material. Thirty-six positive shovel tests resulted, and four archaeological sites were recorded. These were sites 8DU16190, 16191, 16192 and 16196, as discussed earlier in this report. Metal detecting was also carried out at two of the sites. In the fall of 2005, additional investigations at two of these sites were completed by ESI. However, all of these sites are outside of the current project boundaries. No cultural remains were found within what is, for the present purposes, the Wright Property. A clearance/concurrence letter has been received.
Appendix: Regional Cultural History

The following review of regional cultural history will serve as a framework for understanding human land use and settlement in the project vicinity. The study area lies within the East and Central Lake District, as defined by Milanich (1994) with each temporal period based on distinct cultural and technological characteristics recognized by archaeologists. From oldest to most recent, the four temporal periods include Paleoindian, Archaic, Woodland and Mississippian (Table 1).

Paleoindian Period (12,000-8,000 BC)

The earliest evidence for human occupation in Florida dates to the Paleoindian Period, which began approximately 10,000 to 12,000 years BC (Cockrell and Murphy 1978; Clausen et al. 1979).

Radiocarbon dates clustering at 10,000 BC have been generated from sites located in counties along the gulf coast (Cockrell and Murphy 1978; Clausen et al. 1979), but this period is poorly known in northeast Florida. To date, no unequivocal evidence of a Paleoindian presence has been uncovered in the project region. It is possible that sites attributable to the Paleoindian period might exist on the continental shelf beneath ocean waters.

Table 1. Prehistoric Cultural Chronology (adapted from Milanich 1994).

<table>
<thead>
<tr>
<th>CULTURAL PERIOD</th>
<th>TEMPORAL PLACEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PALEOINDIAN</td>
<td>12,000 - 8,000 BC</td>
</tr>
<tr>
<td>ARCHAIC</td>
<td>8,000 - 5,000 BC</td>
</tr>
<tr>
<td>Early</td>
<td>5,000 - 3,000 BC</td>
</tr>
<tr>
<td>Middle</td>
<td>3,000 - 500 BC</td>
</tr>
<tr>
<td>Late</td>
<td>2,000 - 500 BC</td>
</tr>
<tr>
<td>Orange</td>
<td></td>
</tr>
<tr>
<td>WOODLAND</td>
<td>500 BC - AD 750</td>
</tr>
<tr>
<td>Deptford</td>
<td></td>
</tr>
<tr>
<td>Swift Creek</td>
<td></td>
</tr>
<tr>
<td>St. Johns I</td>
<td></td>
</tr>
<tr>
<td>MISSISSIPPIAN</td>
<td>AD750 - 1565+</td>
</tr>
<tr>
<td>St. Johns II</td>
<td></td>
</tr>
<tr>
<td>Savannah</td>
<td></td>
</tr>
<tr>
<td>HISTORIC</td>
<td>A.D. 1565 - Present</td>
</tr>
</tbody>
</table>
Archaic Period (8,000-500 BC)

The environment of the Archaic Period was characterized by drier climatic conditions and higher sea levels that resulted in the emergence of a mesic oak-hickory forest (Milanich 1994). Archaic period Indians focused their subsistence strategies on the procurement of smaller game, fish, wild plant foods, and in some cases, shellfish, and thus, the period seems to have been characterized by changes in subsistence patterns, tool manufacturing techniques, and the surrounding environment.

The earliest Archaic populations exhibit settlement patterns similar to those used by their predecessors, suggesting strong continuity between Early Archaic and previous Paleoindian life-ways (Milanich 1994:63). It is generally assumed that Early Holocene populations were composed of small, nomadic bands that followed seasonal rounds on the basis of resource abundance, and familiarity with a specific region probably resulted in seasonal reuse of the same locations.

Within the Archaic Tradition, two distinct subsistence systems appear to have evolved. Hunting was emphasized in upland areas, while shellfish collection was relied upon in lowland aquatic and coastal zones. A third type of Archaic site now being investigated in Florida is located in peat bogs. Such sites contain buried human remains in association with a variety of other preserved organic artifacts.

In Florida, Early Archaic (8000-5000 BC) components are generally distinguished through the presence of distinct projectile point types such as Kirk, Bolen, Santa Fe, and Tallahassee (Bullen 1975; Milanich 1994:63). Archaic stone tools are different from those of the earlier Paleoindian era in that, they were more expediently produced than were those of the Paleoindian period.

Past researchers postulated that Middle Archaic (5000-3000 BC) peoples of Florida lived almost exclusively in the interior of the state, with occasional ventures to the Atlantic coast. It has now become clear, however, that preceramic groups were occupying the Atlantic coast on a regular basis during the Middle Archaic period (Russo 1988, 1992; Bond 1992), exploiting aquatic estuarine resources.

A shift in subsistence patterns apparently occurred among the later Archaic people of northeast Florida as they became more dependent upon riverine resources. They continued to migrate seasonally, but large freshwater shell middens began to occur along the banks of the St. Johns. In northeast Florida, the Late Archaic Period is known as the Mount Taylor period (4,000-2,000 BC), and is represented in shell deposits along the St. Johns River and its tributaries as well as in the use of charnel houses and secondary burial practices (Milanich 1994). Coastal shell middens were common and artifacts traded in from distant regions have been found in Late Archaic sites as well. During the Orange Period (2,000 - 1,000 BC), trade became more prevalent and cultivation began to occur. The Late Archaic peoples of northeast Florida possessed the same material culture as their predecessors, with fired-clay pottery occurring around 2000 BC (Milanich 1994). This distinct type, known as Orange pottery, was tempered with plant fibers.

At the end of the Orange Phase, referred to by Bullen (1959, 1971) as the Florida Transitional period (about 1200-500 BC), changes in technology and lifestyle marked the beginning of the
Formative Period. Sand tempered and limestone-tempered pottery began to take the place of fiber tempered pottery. Three different projectile point styles (notched, corner-notched, and stemmed) began to occur in contemporaneous deposits, differentiating this period from earlier culture stages and suggesting population movement and social interaction. Cultural change during this period may have accompanied an increase in the utilization of plant foods and increased sedentism.

Woodland Period (500 BC - AD 750)

The St. Johns tradition that characterized North Florida during early Woodland times is most noticeably manifest in archaeological assemblages by a distinct pottery made of clays containing fossil sponge spicules (Borremans and Shaak 1986). The pottery is very lightweight and chalky to the touch. The St. Johns way of life seems to have developed out of the previous Orange culture, as evidenced by St. Johns chalky wares, and the post-Archaic period witnessed an increase in population and settlement numbers. Cultural traits of the St. Johns period included the construction of burial mounds; a continued reliance on coastal/riverine resources; the appearance of new ceramics styles; and a perceived rise in plant cultivation (Milanich 1994:243-274). The St. Johns tradition is divided into two major periods, St. Johns I and II, which are further subdivided based on observable changes in material culture (Goggin 1952:40; Milanich 1994:247).

Originating around 500 BC and lasting to AD 600 on the Atlantic coast (Milanich 1971, 1973), the Deptford culture represents a continuation of the coastal way of life. Communities were situated in maritime hammocks near tidal marshes, with subsistence centered essentially on the exploitation of estuarine and maritime forest resources. Deptford groups may have moved inland seasonally to the river valleys to gather plant foods, hunt game, and trade with non-coastal peoples (Milanich 1973). Deptford ceramics, defined regionally as sand- and/or grit-tempered plain, check stamped, and simple stamped wares, are a common occurrence at archaeological sites in Northeast Florida, particularly along the coast (Milanich and Fairbanks 1980; Vernon 1984).

The occurrence of Swift Creek ceramics in Northeast Florida was first recognized by Goggin (1952), who observed them in mounds in association with Hopewellian inspired mortuary items. In Northwest Florida, Early Swift Creek pottery and exotic Hopewell-like artifacts and/or raw materials are part of a ceremonial complex known as Green Point, whereas Late Swift Creek wares are affiliated with the Weeden Island ceremonialism (Sears 1962; Milanich et al. 1984). Interaction networks probably allowed Swift Creek wares and design concepts to spread from the Northwest Gulf coast to the Northeast Florida Atlantic coast. In addition, the recovery of Late Swift Creek pottery types similar to those found along the coast to the north suggests movement of coastal Swift Creek groups from south Georgia to the mouth of the St. Johns River.

Mississippian Period (AD 750-1565+)

The Mississippian period begins around AD 750, with the introduction of check stamping on St. Johns chalky wares in northeast Florida. As with the preceding period, coastal sites are characterized by diffuse shell middens composed mostly of oyster. Large mounds of shell refuse
are common along the Atlantic coast and inland rivers in the St. Johns heartland (Goggin 1952:55), but are conspicuously absent near the river's mouth (Russo 1992:118). Sand burial mounds increase in use, and the rise in the number of village and mound sites implies greater cultural complexity.

Subsistence activities characteristic of the Mississippian period were similar to that of the Woodland period and emphasized the capture of estuarine fish and shellfish along the coast and freshwater species along the river (Milanich and Fairbanks 1980; Milanich 1994; Russo 1992). It has been hypothesized that there was an increased dependence on horticulture in the region at that time (Goggin 1952; Milanich and Fairbanks 1980).

Late prehistoric (ca AD 750-1565) pottery assemblages recovered at sites near the mouth of the St. Johns River include pure St. Johns and Savannah-related ceramic complexes. However, mixed assemblages containing varying quantities of St. Johns Check Stamped, Savannah Cord Marked, and sand-tempered plain wares are more characteristic of late prehistoric sites in the area (Russo 1992:117). The cultural affiliations and relationships between these wares at sites in the St. Mary's region are unclear at this time.

**Historical Overview of the Vicinity**

Historic accounts and archaeological data have helped identify a number of the indigenous populations throughout the state. The major northeast Florida groups were Timucuans, agriculturists who were descendants of the St. Johns, Alachua, and other known societies. They were particularly dependent on the resources of the St. John River and the coastal lagoons (Goggin 1952). At the time of contact they comprised a loose affiliation of villages with local and regional leaders.

Duval County was first occupied by Europeans in 1564, when the French Huguenots built Fort Caroline on the banks of the St. Johns River. The fort was soon destroyed by the Spanish military, which had set up an encampment to the south. In later years, Franciscan missionaries were sent north and west from St. Augustine to establish Christianity among the Indians. Eventually, a chain of mission settlements extended northward through what is now Duval County to Santa Elena in South Carolina.

The Guale/Yamasee Indians remained loyal to Spanish forces and moved south into the missions of the Timucua area as the British military took control of their Georgian coastal and interior homelands. (Hemmings and Deagan 1973, Milanich and Larson 1977, Milanich and Saunders 1986, Saunders 1992). In 1763, Britain received control of Florida from the Spanish government, and northeast Florida experienced an influx of British settlers. During this period, Jacksonville (known at the time as Cow Town) and northward to the St. Marys River was being settled.

The Second Spanish Period lasted from 1784 to 1821, and was first marked by economic inactivity and later by an economic boom. The Spanish government gave generous land grants, and African slaves were used to produce exports of timber, cotton, rice, and sugar. The Second Spanish Period ended in 1821, when Florida was ceded to the United States. In 1821 Florida became a U.S. Territory and in 1845, a state. The city of Cowford (Jacksonville) flourished near
the mouth of the St. Johns River. It was strategic to the development of agriculture and the timber trade, and developed into a shipping center of large proportion.

**History of the Thomas Creek Battle**

A brief summary of the battle at Thomas Creek can be found on the state historic marker that has been placed on U.S. 1 where it crosses Thomas Creek. It reads as follows:

> When the American War of Independence began, the new British colonies of East and West Florida remained comparatively free from serious fighting throughout the course of the Revolutionary War. In the summer of 1777, however, Americans initiated an invasion aimed at capturing St. Augustine. The expedition was composed of Continental Army troops and Georgia Militia forces under the command of Lt. Colonel Samuel Elbert. Preparations for the defense of East Florida involved the East Rangers and Indian allies.

> On May 17, 1777, a portion of the invading American expedition was attacked by a detachment of British Regulars under Colonel Thomas Brown and Indians. The battle took place at a site on Thomas Creek south of its confluence with the Nassau River. After suffering heavy casualties, the Americans, already discouraged by lack of supplies and the heat, began their retreat from Florida. Only one more unsuccessful invasion of East Florida occurred during the remaining years of the American Revolution.

The site of the Battle of Thomas Creek is important to Florida history because it was one of the only Revolutionary War battles in northeast Florida. The Thomas Creek engagement and its location have been the subject of considerable speculation by amateur and professional historians, since military records apparently do not provide details or maps. Charles E. Bennett thought that the site should be west of and adjacent to I-95 where it intersects the Nassau River. He based his theory on the fact that General Prevost had cited that few Americans could have escaped without their horses, because they had a “deep river to pass after they were defeated (Stowell 1996)”. Local historians James Robertson and Dena Snodgrass suggested that the battle occurred farther west, near the King’s Road and the headwaters of Thomas Creek. Contemporary accounts were limited and imprecise (Stowell 1996).

According to a report prepared by Daniel Stowell for the National Park Service in 1996, “Colonel Baker’s force of 150-180 horsemen had camped at the site for only one night when they were attacked by the East Florida Rangers and their Indian allies. A substantial number of Baker’s men fled immediately without firing, and the rest made only a brief stand. The entire battle was over in only a few minutes and involved no more than 400 men on both sides.” A more detailed account also implies a short battle, but indicates that the intruders from Georgia may have been encamped for several days before being discovered by the British (Cashin 1999).
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Russo, Michael

Saunders, Rebecca A.

Sears, William H.

Stowell, Daniel W.

Vernon Richard
Re: DHR Project File No. 2005-4952B / Revised Per Your Request of August 23, 2005

An Intensive Cultural Resource Assessment Survey of the Thomas Creek Preserve Property, Duval County, Florida

Dear Ms. Chance:

Our office received and reviewed the above referenced survey report in accordance with procedures outlined in Chapters 267 and 373 of the Florida Statutes, for possible adverse impact to cultural resources (any prehistoric or historic district, site, building, structure, or object) listed, or eligible for listing, in the National Register of Historic Places (NRHP).

In February and March of 2005, Environmental Services, Inc. (ESI) conducted an archaeological and historical survey of the Thomas Creek Preserve property on behalf of Montgomery Land Company. One previously recorded archaeological site and four previously unrecorded archaeological sites were identified within the project area during the investigation.

The Thomas Creek Battlefield site (8DU161), a revolutionary era battlefield with a general vicinity plot, was listed as existing within the project area. ESI was unable to relocate the portion of 8DU161 during investigation of the project area. ESI recommended that no further work be conducted within the area presently recorded as site 8DU161.

The Thomas Creek A site (8DU16190), a multicomponent archaeological site with a Swift Creek occupation as well as artifacts dating to the Revolutionary War time period, was identified within the project area. Due to further research potential and the possibility of intact features or cultural strata, it is the opinion of ESI that 8DU16190 appears potentially eligible for listing in the NRHP. ESI recommends that further work be conducted to further evaluate the eligibility of 8DU16190.

ESI notes that the identification of the Thomas Creek Battlefield has the potential to be important on the national scale, as well as locally and regionally. ESI recommends that the archaeological evaluation be accompanied by comprehensive historical research, so that all relevant information on the site appears in a single document.

The Thomas Creek K site (8DU16191), a multicomponent archaeological site, was identified within the project area. Due to further research potential and intact features or cultural strata, it is the opinion of ESI that 8DU16191 appears potentially eligible for listing in the NRHP. ESI recommends that further work be conducted to further evaluate the eligibility of 8DU16191.
The Thomas Creek O site (8DU16192), a low density lithic scatter, was identified within the project area. Due to low research potential and the lack of intact features or cultural strata, it is the opinion of ESI that 8DU16192 does not appear eligible for listing in the NRHP. ESI recommends no further work be conducted on 8DU16192.

The Thomas Creek A South site (8DU16196), a low-density lithic scatter, was identified within the project area. Due to low research potential and the lack of intact features or cultural strata, it is the opinion of ESI that 8DU16196 does not appear eligible for listing in the NRHP. ESI recommends no further work be conducted on 8DU16196.

Based on the information provided, our office concurs with these determinations and finds the submitted report complete and sufficient in accordance with Chapter 1A-46, Florida Administrative Code. Please note that in future reports a Site Plan & USGS Map (1:3600 versus 1:24000 for Survey Log Sheet) is a required attachment for each archaeological site form.

In addition, we noted that previously recorded site 8DU14668, the Dylan James Allen Site, located northwest of 8DU16190, is also recorded within the property boundaries. This primarily historic period site was determined not eligible for listing in the NRHP in 2002 when reviewed by this office.

If you have any questions concerning our comments, please contact Laura Kammerer, Historic Preservationist Supervisor, by phone at (850) 245-6333. Your continued interest in protecting Florida's historic properties is appreciated.

Sincerely,

Laura Q. Kammerer
Frederick P. Gaske, Director, and
State Historic Preservation Officer
Project Boundary

1 inch equals 3,000.000000 feet

Sources: USGS Topographic Quadrangle, Italy (Labone).

Disclaimer: Information represented on this map was derived from secondary data sources and is to be used for general planning purposes only. No warranties or representations of accuracy are expressed or implied.

Project Location Map
Earth Tech / V.A. Cemetary
Jacksonville, Duval County, Florida

Project: EJ05270.00
Date: January 2006
Drwn/Chkd: JB / GH
Figure: 1
Project Boundary

38, Mascotte fine sand, 0 to 2 percent slopes
51, Pelham fine sand, 0 to 2 percent slopes
63, Sapelo fine sand, 0 to 2 percent slopes
66, Surrency loamy fine sand, depressional, 0 to 2 percent slopes
78, Yonges fine sandy loam, 0 to 2 percent slopes
79, Yulee clay, 0 to 2 percent slopes, frequently flooded
82, Pelham fine sand, depressional, 0 to 2 percent slopes
86, Yulee clay, depressional, 0 to 2 percent slopes

Sources: USDA Soil Survey for Duval County, Florida; USGS Topographic Quadrangle, Italia (LAI/BNS).

Disclaimer: Information represented on this map was derived from secondary data sources and is to be used for general planning purposes only. No warranties or representations of accuracy are expressed or implied.

Environmental Services, Inc.

Soils Map
Earth Tech / V.A. Cemetary
Jacksonville, Duval County, Florida

Project: EJ05270.00
Date: January 2006
Drwn/Chkd: JB / GH
Figure: 2
Previously Recorded Cultural Resources

Earth Tech / V.A. Cemetery
Jacksonville, Duval County, Florida
in its current location, potentially creating noise impacts on portions of the proposed cemetery. However, these impacts would be intermittent and minor. At least 1,500 feet and a wooded area separate the facility from Lannie Road and the potential cemetery site. Users of the field are more likely to fly their planes over the cleared area north of the runway than over and beyond the wooded area to the south. Also, only a relatively small part of the cemetery would be close enough to the airfield to possibly be affected by model airplane noise. DVA could avoid locating particularly noise-sensitive functions in this area, if needed.

4.7.5 Lannie Road Realigned Alternative

Implementation of the Lannie Road Realigned Alternative would have negligible adverse impacts, as described in Section 4.7.2. Under this alternative, the cemetery would be closer to the model airfield than under the City South Alternative and a larger area may be affected by noise from the facility. If needed, a buffer could be established to ensure that model airplanes do not fly over or too close to the cemetery. Any such measure would be taken in consultation with the users of the facility. Because of the size of the area around the flying field, it is not expected that establishment of a buffer, if needed, would significantly reduce its functionality. As much as possible, DVA would avoid locating particularly noise-sensitive functions in the areas close to the model airfield.

4.8 Cultural Resources

4.8.1 No Action Alternative

The No Action Alternative would not affect cultural resources.

4.8.2 Wright Alternative

As indicated in Section 3.8.1.1, there are no known or potential historic structures on the Wright Site. Therefore, development of the proposed cemetery on this site would have no effects on historic structures. Based on ESI’s cultural resources evaluation (see Appendix B), the Wright property has minimal archaeological potential. Therefore, it is not expected that developing the site would result in significant adverse effects to archaeological resources. However, should any archaeological artifacts be unearthed during construction activities, construction would stop and DVA would notify the SHPO immediately to develop an appropriate plan of action.

4.8.3 City North Alternative

As indicated in Section 3.8.1.2, there are no known or potential historic structures on the City Site. Therefore, implementation of the City North Alternative would have no effects on historic structures. Based on ESI’s cultural resources evaluation (see Appendix B), the City Site has
minimal archaeological potential. Therefore, it is not expected that implementing the City North Alternative would result in significant adverse effects to archaeological resources. However, should any archaeological artifacts be unearthed during construction activities, construction would stop and DVA would notify the SHPO immediately to develop an appropriate plan of action.

### 4.8.4 City South Alternative

As indicated in Section 3.8.1.2, there are no known or potential historic structures on the City Site. Therefore, implementation of the City South Alternative would have no effects on historic structures. Based on ESI’s cultural resources evaluation (see Appendix B), the City Site has minimal archaeological potential. Therefore, it is not expected that implementing the City South Alternative would result in significant adverse effects to archaeological resources. However, should any archaeological artifacts be unearthed during construction activities, construction would stop and DVA would notify the SHPO immediately to develop an appropriate plan of action.

### 4.8.5 Lannie Road Realigned Alternative

As indicated in Section 3.8.1.2, there are no known or potential historic structures on the City Site. Therefore, implementation of the Lannie Road Realigned Alternative would have no effects on historic structures. Based on ESI’s cultural resources evaluation (see Appendix B), the City Site has minimal archaeological potential. Therefore, it is not expected that implementing the Lannie Road Realigned Alternative would result in significant adverse effects to archaeological resources. However, should any archaeological artifacts be unearthed during construction activities, construction would stop and DVA would notify the SHPO immediately to develop an appropriate plan of action.

### 4.9 Natural Resources

#### 4.9.1 Geology, Topography, and Soils

##### 4.9.1.1 No Action Alternative

Under the No Action Alternative, the potential cemetery sites would remain in their current state and condition. There would be no impacts to geology, topography, or soils.
Mr. Laurent Cartayrade
Earth Tech
675 North Washington Street, Suite 300
Alexandria, Virginia 22314

RE: DHR Project File Number: 2005-4441-B
Additional Information Received by DHR February 9, 2006
U.S. Department of Veterans Affairs
Environmental Assessment for New National Cemetery in Jacksonville
Four Proposed Sites: City Site I, City Site II, Wright Northeast, and Wright Southwest
Jacksonville, Duval County

Dear Mr. Cartayrade:

Our office received and reviewed the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended and 36 CFR Part 800: Protection of Historic Properties and the National Environmental Policy Act of 1969, as amended. The State Historic Preservation Officer is to advise Federal agencies as they identify historic properties (listed or eligible for listing in the National Register of Historic Places), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

Based on the additional information provided, it is the opinion of this office that the proposed project will have no effect on historic properties. However, there are possibilities that there may be historical or pre-historical artifacts or unmarked human remains might be uncovered at the proposed sites. The U.S. Department of Veterans Affairs will need to make contingency plans for any fortuitous finds uncovered during the construction phase of this project.

If historic artifacts, such as pottery or ceramics, metal implements, historic building materials, or any other physical remains that could be associated with early American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The U.S. Department of Veterans Affairs should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278.

Project activities should not resume without verbal and/or written authorization from the
Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper federal authorities notified in accordance with the Native American Graves Protection and Repatriation Act (federal guidelines enclosed), as well as the proper state authorities under Section 872.05, Florida Statutes.

If you have any questions concerning our comments, please contact James Toner, Historic Sites Specialist, by electronic mail at jetoner@dos.state.fl.us, or at 850-245-6333 or 800-847-7278.

Sincerely,

Frederick P. Gaske, Director, and State Historic Preservation Officer

Enclosure
Inadvertent Discoveries on Federal Lands  
After November 16, 1990  

An inadvertent discovery is one for which no plan of action was developed prior to the discovery.

**Notification**  
The person who makes the discovery must immediately notify the responsible Federal official by telephone and provide written confirmation to the responsible Federal official.

**Stop Work**  
If the inadvertent discovery occurred in connection with an on-going activity, the person must cease the activity in the area of the inadvertent discovery and make a reasonable effort to protect the human remains and other cultural items.

**Initiating Consultation**  
No later than three working days after receiving written confirmation of the notification, the responsible Federal agency official must certify receipt of the notification, and take immediate steps, if necessary, to further secure and protect the human remains and other cultural items. NOTE: activity that resulted in the discovery may resume thirty days after the Federal agency official certifies receipt of the notification.

The responsible Federal agency official must also notify by telephone (with written confirmation) and initiate consultation with any known lineal descendant and the Indian tribes and Native Hawaiian organizations –

- who are or are likely to be culturally affiliated with the human remains and other cultural items;
- on whose aboriginal lands the remains and cultural items were discovered; and
- who are reasonably known to have a cultural relationship to the human remains and other cultural items.

Consultation is initiated with a written notification. The written notification must propose a time and place for meetings or consultation.

**During Consultation**  
The purpose of consultation is to help the Federal agency determine who is entitled to custody of the human remains and other cultural items under NAGPRA so that the disposition process can be completed, and to discuss the Federal agency’s proposed treatment of the human remains and other cultural items pending disposition.

The Federal agency official must provide in writing –

- a list of all lineal descendants, Indian tribes, or Native Hawaiian organizations that are being, or have been, consulted; and
- an indication that additional documentation will provided on request.

The Federal agency official must request, as appropriate –

- names and addresses of the Indian tribe official who will act as the tribe’s representative in consultation;
- names and appropriate methods to contact lineal descendants;
- recommendations on how consultation should be conducted; and
- the kinds of cultural items that are considered to be unassociated funerary objects, sacred objects, or objects of cultural patrimony.

**After Consultation – Written Plan of Action**  
The Federal agency official must prepare, approve, and sign a written plan of action. The plan of action must document the kinds of objects to be considered as cultural items; the planned treatment, care, and handling, including traditional treatment, of human remains and other cultural items; the planned archeological recording of the human remains and other cultural items; the kinds of analysis planned for each kind of object; and the nature of reports to be prepared.

The written plan of action must also include –

- the specific information used to determine custody of the human remains and other cultural items; and
- the planned disposition of the human remains and other cultural items.

Custody must determined in accordance with 25 USC 3002 (a), “Priority of Ownership,” and 43 CFR 10.6, “Priority of Custody.”
Will the human remains and other cultural items be left in place?

Yes  
The Federal agency secures the site of discovery, and the disposition process does not continue further.

OR

No  
Excavation or removal of the human remains and other cultural items must take place following the requirements of the Archeological Resources Protection Act (ARPA) (16 U.S.C. 470aa et seq.) and its implementation regulations. This includes issuance of an excavation permit by the cognizant Federal agency where required by ARPA.

Prior to Disposition – Notice of Intended Disposition

At least 30 days prior to transferring the human remains and other cultural items to the claimant entitled to custody, the responsible Federal agency must first publish a Notice of Intended Disposition. The Notice must:

- be published two times (at least a week apart) in a newspaper of general circulation in the area in which the human remains and other cultural items were discovered;
- be published two times (at least a week apart) in a newspaper of general circulation in the area or areas in which the affiliated Indian tribes or Native Hawaiian organization members now reside;
- provide information as to the nature and affiliation of the human remains and other cultural items; and
- solicit further claims to custody.

The Federal agency official must send a copy of the notice and information on when and where it was published to the National NAGPRA program.

Disposition

Disposition is the formal transfer of Native American human remains and other cultural items excavated or inadvertently discovered on Federal or tribal lands after November 16, 1990, to the lineal descendants, Indian Tribes, or Native Hawaiian organizations that have been determined to be the legitimate claimants.

In completing the disposition, the claimant formally accepts custody (ownership). Disposition should be documented, must be consistent with 25 USC 3002 (a), “Priority of Ownership,” and 43 CFR 10.6, “Priority of Custody.” Physical transfer may take place 30 days after the publication of the second Notice of Intended Disposition, as agreed upon by the claimant and the Federal agency official.

Some Disposition Options

Claimant Takes Physical Custody

The legitimate claimant takes physical possession of the human remains and other cultural items. Where allowable, and upon agreement with the claimant, the Federal agency may provide temporary care until the claimant is able to take physical custody.

Reburial on Federal Land

The human remains and other cultural items may be reburied on Federal land, if the agency’s policies and procedures permit such activities.

Relinquishment

Under NAGPRA [25 USC 3002(e)], the governing body of an Indian tribe or Native Hawaiian organization may expressly relinquish control over any Native American human remains, or title to or control over any funerary object or sacred object.
Mr. Laurent Cartayrade
Earth Tech
675 North Washington Street, Suite 300
Alexandria, Virginia 22314

RE: DHR Project File Number: 2005-4441
Received by DHR May 3, 2005
U.S. Department of Veterans Affairs
Environmental Assessment for New National Cemetery in Jacksonville
Four Proposed Sites: City Site I, City Site II, Wright Northeast, and Wright Southwest
Jacksonville, Duval County

Dear Mr. Cartayrade:

Our office received and reviewed the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended and 36 CFR Part 800: Protection of Historic Properties and the National Environmental Policy Act of 1969, as amended. The State Historic Preservation Officer is to advise Federal agencies as they identify historic properties (listed or eligible for listing in the National Register of Historic Places), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

City Site I, City Site II, and Wright Southwest: A review of the Florida Master Site File indicates that there are no known archaeological or historical sites within the areas under consideration. However, since these areas have never been subjected to professional archaeological investigation, this is not necessarily indicative of the absence of archaeological materials. The proposed project will affect a sizable area that is environmentally similar to regions within Duval County that are known to have yielded archaeological remains.

Wright Northeast: A review of the Florida Master Site File indicates the presence of one previously recorded archaeological site (8DU161 - battlefield site) in the areas under consideration (see map). No other archaeological or historical sites are recorded within the properties. However, since these areas have never been subjected to professional archaeological investigation, this is not necessarily indicative of the absence of archaeological materials. The proposed project will affect a sizable area that is environmentally similar to regions within Duval County that are known to have yielded archaeological remains.

Therefore, it is the recommendation of this office that prior to any ground disturbing activities, a professional archaeological and historical investigation be conducted for the selected site. Its purpose will be to determine if archaeological or historic resources are present within the project area, and the
significance of any resources located. The resultant report should conform to the specifications set forth in Chapter IA-46, Florida Administrative Code, and be forwarded to this agency in order to complete the process of reviewing the impact of this proposed project on historic properties. The results of the investigations will determine if significant archaeological resources would be disturbed by this project. In addition, if significant remains are located, the data described in the report and the consultant’s conclusions will assist this office in determining measures that must be taken to avoid, minimize, or mitigate adverse impacts to historic properties listed, or eligible for listing in the National Register of Historic Places, or otherwise of historic or archaeological significance.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservationist, by electronic mail sedwards@dos.state.fl.us, or at 850-245-6333 or 800-847-7278.

Sincerely,

Frederick P. Gaske, Director, and
State Historic Preservation Officer

Enclosure
Mr. Elliott:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, in the National Register of Historic Places. The review was conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations in 36 CFR Part 800: Protection of Historic Properties.

Based on the information provided, this office concurs with the Department of Veterans Affairs’ determination that the proposed project should have No Adverse Effect on historic properties. However, since the project includes ground disturbance activities the following special condition regarding unexpected discoveries should be included during project activities:

- 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, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

If you have any questions, please contact Corey Lentz, Historic Sites Specialist, by email at Corey.Lentz@dos.myflorida.com, or by telephone at 850.245.6339 or 800.847.7278.

Sincerely,

Timothy A Parsons, Ph.D.
Director, Division of Historical Resources & State Historic Preservation Officer
Appendix C – Environmental Survey Reports
Endangered Species Report for the Proposed Expansion of the Jacksonville National Cemetery
Jacksonville, Florida

GSA Contract Number: GS-10F-0120T
VA Task Order Number: VA101F-17-F-2920

Prepared for:
US Department of Veterans Affairs
Office of Construction and Facilities Management (003C4B)
425 I Street, NW
Washington, DC  20001

Prepared by:
Mabbett & Associates, Inc.
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Bedford, MA  01730

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150 North Orange Avenue, Suite 200
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August 14, 2017
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Appendix A: 2007 Expansion Site Master Plan
1 INTRODUCTION

This Endangered Species Report has been prepared for the U.S. Department of Veterans Affairs (VA) as part of the VA’s proposed expansion of the Jacksonville National Cemetery, located at 4083 Lannie Road, Jacksonville, Duval County, Florida (Figure 1). This location is 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 purpose of the proposed expansion is to create new burial capacity and other physical infrastructure within a portion of the Phase 2 development area, as identified in the VA’s 2007 Master Plan for the Jacksonville National Cemetery. The proposed expansion would extend the longevity of the Jacksonville National Cemetery for Veterans and their eligible family members in northeast Florida.

The purpose of this report is to identify the potential effects of the proposed cemetery expansion on listed species and their associated habitats. The process used to identify potential impacts included literature and database reviews and a field survey of habitats within and adjacent to the proposed expansion area. A summary of the methodologies and results are provided below.

1.1 Proposed Expansion of the Jacksonville National Cemetery

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. In 2007, the VA completed a Master Plan for the northern portion of the property. This Master Plan identified where phased development and environmental protection areas would be located over the next 100 years. In 2009, the first phase (Phase 1 cemetery) of the Master Plan was constructed in the western portion of the northern area, and the first burials occurred that same year.

The Phase 1 cemetery is currently anticipated to reach capacity within the next several years. As a result, the VA has begun planning for the next phased cemetery expansion in accordance with the Master Plan, which identified an approximately 200-acre area (to the east of the Phase 1 cemetery) for a future Phase 2 cemetery. To date, no development has occurred within the Phase 2 cemetery boundary. However, as described in the following sections, the VA has already applied for and received state and federal permits issued for the conceptual development of the Phase 2 cemetery based on the Master Plan. These permits also define regulated resources and preservation areas within the Phase 2 boundary and the mitigation that would be required once construction and operation occur.

As part of the current expansion planning process, the VA identified an approximately 60-acre area for the proposed expansion within the southwestern portion of the Phase 2 boundary (Figure 2). This 60-acre area is identified in this report as the Proposed Expansion Area, however, only approximately 45 acres within the 60-acre area would be developed, because an approximately 15-acre preservation area (where development is prohibited) is already present within the eastern portion of the 60-acre area (Figure 3). In summary, the proposed 45-acre expansion would be designed according to the Master Plan and would provide new burial sections, roadways, and a stormwater management pond. Although the proposed expansion would impact wetlands, it would entirely avoid impacting existing preservation areas present within the Phase 2 boundary. A discussion of these impacts was described in the Wetland Delineation Report for the Proposed Expansion of the Jacksonville National Cemetery, submitted to the VA under separate cover on July 21, 2017.

1.2 Jacksonville National Cemetery Regulatory Planning History

An Environmental Assessment (EA) was completed by the VA in May 2006 to evaluate the physical, biological, and cultural resources effects of developing a new National Cemetery at one of two sites (“City Site” or the “Wright Site”) along Lannie Road in Jacksonville, Florida. Following completion of the 2006 Final EA, the VA selected and purchased the City Site, developed the phased Master Plan, and secured the following permits from the St. Johns River Water Management District (SJRWMD) and the U.S. Army Corps of Engineers (USACE) to construct Phases 1A, 1B, and 2 based on the conceptual design presented in the Master Plan.
**SJRWMD Permits**

SJRWMD 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.

The SJRWMD issued a formal jurisdictional determination on February 9, 2009 (Appendix A). The VA’s contractor Environmental Services, Inc. (ESI) delineated boundaries of onsite wetlands pursuant to the methodology provided within Chapter 62-340, Florida Administrative Code, “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.

SJRWMD Permit 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 the 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 Permit 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 the 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.

Application Number 115730-5 was submitted to the SJRWMD on June 27, 2016, to modify ERP-115730-3 to allow for the construction of the Jacksonville National Cemetery Access Road (SJRWMD Permit ERP-140622-3. This modification request includes only changes to the mitigation plan; with no changes being proposed to the engineering or permitted impacts. The proposed modification is comprised of 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. SJRWMD submitted a request for additional information on July 25, 2016. A partial RAI response was submitted on November 4, 2016. This modification request remains open and has neither been granted nor denied.

**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 and within the 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.

SAJ-2006-02208 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 to the cemetery property, directly adjacent to the previously identified wetland creation area. This permit remains valid through August 18, 2024.

Summary of Remaining Permitting Needs

Based upon a review of permits previously issued by the SJRWMD and the USACE, prior to engaging in construction of Phase 2 and/or the proposed expansion area, 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.

Summary of Remaining Mitigation Requirements

To date, none of the proposed Phase 2 cemetery has been constructed. However, unavoidable wetland impacts anticipated by this construction and the requisite compensatory mitigation requirements were reviewed and approved by regulatory agencies. 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. Additional mitigation actions will need to be implemented in order to construct Phase 2 of the cemetery. These actions include 31.45 acres of wetland creation and the removal of exotic vegetation from 58.82 acres of preservation areas as defined by the approved mitigation plans within ERP-115730-003 and SAJ-2006-02208 (SP-BAL). The proposed expansion area will impact 3.88 acres of jurisdictional wetlands. Subsequent to the implementation of the wetland creation and wetland enhancement components of the mitigation plan, monitoring will be required to demonstrate permit compliance. The mitigation requirements are shown on Figure 3.

1.3 Proposed Project: Expansion of the Jacksonville National Cemetery

The Jacksonville National Cemetery covers approximately 526 acres and is designed to serve Veterans’ and their families in northeast Florida. A Master Plan was completed in 2007; it identified where phased development and environmental protection areas would be located within the property boundary over the next 100 years. In 2009, the first phase (Phase 1 cemetery) of the Master Plan was constructed in the western portion of the property, and the first burials occurred the same year. The Master Plan identified an approximately 200-acre area for a future Phase 2 cemetery; the area is located adjacent to and east of the Phase 1 cemetery. To date, no development has occurred within the Phase 2 cemetery boundary.

Under the current proposed expansion, an approximately 45-acre area would be developed within the boundary of the future Phase 2 cemetery. The expansion would provide new burial sections, roadways, and stormwater management ponds, while maintaining existing designated preservation areas located within the Phase 2 cemetery boundary (Figure 2).
2 METHODOLOGY

2.1 Data Collection

The potential presence of state- and federally-listed species within the Proposed Expansion Area was assessed by review of the following:

- Species accounts;
- U.S. Fish and Wildlife Service (FWS) and Florida Fish and Wildlife Conservation Commission (FWC) listings of species known to occur or potentially occurring in Duval County;
- Online database sources from the FWS, FWC, and Florida Natural Areas Inventory (FNAI); and
- Field observations of habitats and wildlife species.

Documented occurrences of rare species likely to occur within Duval County were obtained from FNAI’s Searchable Tracking List website (FNAI, 2017), FWS Information for Planning and Conservation (IPAC), and observations recorded during the June 21, 2017 field review by AECOM. Prior to the field review, the following documents were reviewed to identify general habitats and land use features in the vicinity of the cemetery:

- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service, Soil Survey of Duval County, Florida (NRCS, 2012);
- Hydric Soils of Florida Handbook (Hurt, 2007);
- Florida Land Use, Cover and Forms Classification System (FLUCFCS), 3rd edition (FDOT, 1999);
- St. Johns River Water Management District FLUCFCS GIS Database (SJRWMD, 2011); and
- U.S. Fish and Wildlife Service Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979).

Land use refers to the predominant use of a piece of land (e.g., agriculture, transportation, or residential). Land may be developed for use or remain undeveloped (e.g. a national park or conservation area) but still retain a land use classification. Vegetative cover refers to the predominant vegetative form of a developed or undeveloped piece of land (e.g. upland hardwood forest, bottomland swamp, or citrus grove). Together, land use and vegetative cover classifications describe landscapes within a particular area. In Florida, land use and vegetative cover types are commonly classified using the Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT, 1999). FLUCFCS is a uniform land classification system developed by the FDOT and is widely used by local, state, and federal agencies within Florida.

2.2 Field Survey

A field survey was conducted by AECOM on June 21, 2017, within the 45-acres of the 60-acre Proposed Expansion Area that would require conversion of natural habitat; the 15 acres already preserved in perpetuity were not surveyed as they cannot be developed. Land use and vegetative cover within the Proposed Expansion Area were assessed. All areas within the Proposed Expansion Area were assigned a FLUCFCS code reflecting their land use or vegetative cover. The location and acreage of FLUCFCS polygons in the Proposed Expansion Area were determined by: 1) marking field-observed FLUCFCS boundaries on an aerial photograph; 2) digitizing the field FLUCFCS map into a Geographic Information System (GIS) database; and 3) overlaying the Proposed Expansion Area boundaries on the digitized FLUCFCS map. The resulting information was used to describe existing land use, vegetative cover, and land forms in the Proposed Expansion Area. Qualified biologists assessed the potential presence of state- and federally-listed species within the Proposed Expansion Area. Qualitative surveys of each habitat type present within the Proposed Expansion Area were made by visual inspection during the field survey.

August 14, 2017
3 LAND USE/VEGETATIVE COVER

All vegetative habitats and land uses within the Proposed Expansion Area were classified using the FLUCFCS. The vegetative communities are summarized in Table 1 and depicted in Figure 4.

Table 1. Land Use/Vegetative Cover within the Proposed Expansion Area

<table>
<thead>
<tr>
<th>FLUCFCS Code</th>
<th>FLUCFCS Description</th>
<th>Acres within Proposed Expansion Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>211</td>
<td>Improved Pasture</td>
<td>39.65</td>
</tr>
<tr>
<td>211W</td>
<td>Improved Pasture – Wet</td>
<td>3.18</td>
</tr>
<tr>
<td>510</td>
<td>Ditch</td>
<td>0.16</td>
</tr>
<tr>
<td>630</td>
<td>Mixed Forested Wetland</td>
<td>12.48</td>
</tr>
<tr>
<td>--</td>
<td>Phase 1 Stormwater Management Pond (previously evaluated for the Phase 1 development)</td>
<td>4.91</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>60.38</td>
</tr>
</tbody>
</table>

1FDOT, 1999

Improved Pastures (FLUCFCS 211)

The majority of the Proposed Expansion Area is comprised of pastureland that has been primarily used by ranchers to graze cattle. This area is dominated by bahia grass *(Paspalum notatum)*, with some patches of dog fennel *(Eupatorium capillifolium)*, and blackberry *(Rubus sp.)*

Improved Pastures (FLUCFCS 211W)

Some of the pasture land within the Proposed Expansion Area is wetland, vegetated with bahia grass, smartweed *(Persicaria spp.)*, soft rush *(Juncus effusus)*, dwarf umbrella sedge *(Fuirena pumila)*, horned beaksedge *(Rhynchospora corniculata)*, millet beaksedge *(R. miliacea)* switchgrass *(Panicum virgatum)*, spadeleaf *(Centella asiatica)*, hairy umbrella sedge *(F. squarrosa)*, and mermaid-weed *(Proserpinaca palustris)*

Mixed Forested Wetland (FLUCFCS 630)

Within this community, the dominant canopy species include sweetgum *(Liquidambar styraciflua)*, red maple *(Acer rubrum)*, slash pine *(Pinus elliottii)*, pond pine *(P. serotina)*, bald cypress *(Taxodium distichum)*, blackgum *(Nyssa biflora)*, water oak *(Quercus nigra)* and Chinese tallow. The understory species includes fetterbush *(Lyonia lucida)*, wax myrtle *(Morella cerifera)*, saw palmetto *(Serenoa repens)*, and gallberry *(Ilex glabra)*. The groundcover is dominated by Virginia chain fern *(Woodwardia virginica)*, netted chain fern *(W. areolata)*, and cinnamon fern *(Osmunda cinnamomea)*

4 LISTED SPECIES POTENTIALLY Affected

The Endangered Species Act (ESA) requires that all federal agencies undertake programs for the conservation of endangered and threatened species and prohibits federal agencies from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its critical habitat as designated in 50 CFR 17 and 226. Projects that would otherwise jeopardize a federally-listed species or impact its critical habitat must contain conservation measures or habitat mitigation that removes the jeopardy. State-listed species are those animal and plant species protected by the State of Florida pursuant to Chapter 68A-27 F.A.C. and Chapter 5B-40, F.A.C., respectively.

Animal species may be classified as “endangered” when it is in danger of extinction within the foreseeable future throughout all or a significant portion of its range. A “threatened” classification is provided to those species likely to become endangered within the foreseeable future throughout all or a significant part of their ranges. The State of Florida also maintains a state list of endangered and threatened species and “species of special concern.” A species of special concern is a species that, although possibly relatively abundant and widespread in the state, is
especially vulnerable to certain types of exploitation or environmental changes and have experienced long-term population declines.

Plant species are listed by the Florida Department of Agriculture and Consumer Services (FDACS) as endangered, threatened, and commercially exploited. As defined by Chapter 581.185(2), Florida Statutes, "endangered plants" refers to species of plants native to the state that are in imminent danger of extinction within the state, and the survival of which is unlikely if the causes of a decline in the number of plants continue. "Threatened plants" refers to species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered. "Commercially exploited plants" refers to species native to the state which are subject to being removed in significant numbers from native habitats in the state and sold or transported for sale.

Based on a review of available literature, online data sources, and field review, a total of ten (10) state-listed plant species and six (6) state and/or federally-listed animal species have the potential to occur within the Proposed Expansion Area. Another species of concern that has the potential to occur that is protected by state and federal law is the bald eagle (Haliaeetus leucocephalus). Table 2 provides a summary of the listed and protected species with potential to occur within the Proposed Expansion Area. Each of these species is discussed in the following sections.

Table 2. Listed Species Potentially Occurring within 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>Asclepias viridula</td>
<td>Southern Milkweed</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Balduina atropurpurea</td>
<td>Purple Honeycomb-head</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Calopogon multiflorus</td>
<td>Many-flowered Grass-pink</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Coreopsis integrifolia</td>
<td>Ciliate-leaf Tickseed</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Ctenium floridanum</td>
<td>Florida Toothache Grass</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Matelea floridana</td>
<td>Florida Spiny-pod</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Pycnanthemum floridanum</td>
<td>Florida Mountain Mint</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Rudbeckia nitida</td>
<td>St. John’s Blackeyed Susan</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Sideroxylon alachuense</td>
<td>Silver Buckthorn</td>
<td>NL</td>
<td>E</td>
</tr>
<tr>
<td>Verbesina heterophylla</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>Gopherus polyphemus</td>
<td>Gopher Tortoise</td>
<td>C</td>
<td>T</td>
</tr>
<tr>
<td>Drymarchon corais couperi</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>Cistothorus palustris griseus</td>
<td>Worthington’s Marsh Wren</td>
<td>NL</td>
<td>SSC</td>
</tr>
<tr>
<td>Egretta caerulata</td>
<td>Little Blue Heron</td>
<td>NL</td>
<td>T</td>
</tr>
<tr>
<td>Mycteria americana</td>
<td>Wood Stork</td>
<td>T</td>
<td>NL</td>
</tr>
<tr>
<td>Picoides borealis</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>Haliaeetus leucocephalus</td>
<td>American Bald Eagle</td>
<td>NL</td>
<td>NL</td>
</tr>
</tbody>
</table>

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

4.1 Flora

Ten state-listed plant species have the potential to occur within the Proposed Expansion Area and are listed in Table 2. However, none of these plant species have been reported by FNAL databases as occurring within one mile of the Proposed Expansion Area and none were observed within the Proposed Expansion Area during the field survey. Therefore, it has been determined that the proposed project would not adversely affect any of these listed plant species.
4.2 Fauna

4.2.1 Federally-Listed Species

*Eastern Indigo Snake*

The federally threatened eastern indigo snake can be found in a variety of habitats including mesic flatwoods, swamps, wet prairies, xeric pinelands, and scrub areas. Suitable habitat is available for this species in the Proposed Expansion Area. Based on review of FNAI data, the eastern indigo snake has been documented within Duval County, but not within one mile of the Proposed Expansion Area. No eastern indigo snakes were observed during the field survey. In an effort to reduce correspondence in effect determinations and responses, the FWS has provided the USACE an *Eastern Indigo Snake Effect Determination Key* (updated in 2010). Using this key, the following steps were presumably followed by the USACE to determine the effect of the proposed expansion project on the indigo snake:

A. The project is not solely located in open water or salt marsh.

B. The permit authorizing the proposed expansion will be conditioned for use of the FWS Standard Protection Measures for the Eastern Indigo Snake during site preparation and project construction.

C. There are no gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried, or trapped and injured during project activities.

During the federal permitting process for the buildout of the Jacksonville National Cemetery based on the 2007 Master Plan, the USACE determined that the project would not affect the eastern indigo snake and did not include the special protection measures for the species as a requirement to the permits issued.

*Gopher Tortoise*

The gopher tortoise is listed as threatened by the FWC and is a candidate for listing by the FWS. The gopher tortoise requires well-drained, loose sandy soils for burrowing, and low-growing herbs and grasses for food. These conditions can be found in a number of habitats including dry prairies, pine flatwoods and disturbed or maintained sites such as roadsides.

During the field survey on June 21, 2017, 100% of the suitable habitat within the Proposed Expansion Area was surveyed for gopher tortoise burrows. There were no potentially occupied gopher tortoise burrows observed within the Proposed Expansion Area during the field survey.

However, gopher tortoises are a highly mobile species and gopher tortoise burrow surveys are not valid for more than 90 days per FWC requirements. Therefore, prior to construction, it is recommended that suitable habitat within the entire Proposed Expansion Area be surveyed to ensure that gopher tortoises have not moved into the site. Any gopher tortoises or burrows found in or within 25 feet of the proposed area to be disturbed will require coordination with the FWC to secure permits needed to relocate the gopher tortoises and associated listed species prior to construction. Assuming the VA will adhere to this coordination commitment, a determination based on the current 100% survey was made that the currently proposed expansion project would not adversely affect the gopher tortoise.

*Red Cockaded Woodpecker*

The red cockaded woodpecker is largely black and white, with a large, bright-white cheek patch and a bold black malar stripe forming the lower border of the cheek. Males have a tiny, nearly invisible red streak (“cockade”) at the upper border of the cheek. The back has strong horizontal black-and-white bars. The red-cockaded woodpecker was federally listed as endangered in 1970, and currently is classified as threatened by the State of Florida. The primary threat to the species continues to be destruction or degradation of its habitat as a result of timbering and other land-clearing activities. The red cockaded woodpecker requires old-growth pine with little to no understory vegetation.
The Proposed Expansion Area is within the FWS consultation area for the red cockaded woodpecker (Figure 5). Based on the field survey conducted on June 21, 2017, there is no habitat present within the Proposed Expansion Area suitable for the red cockaded woodpecker. The impact area is entirely comprised of improved pasture and no pine trees are present within the site. It is anticipated that the proposed project will result in a “no effect” ESA determination by the FWS.

**Wood Stork**

The Proposed Expansion Area is within the core forage area of one active wood stork nesting colony, which is located 10.5 miles to the southeast at the Jacksonville Zoo (Figure 5). In an effort to reduce correspondence in effect determinations and responses, the FWS has provided the USACE with a Wood Stork Effect Determination Key (updated in 2010). Using this key, the following steps were followed to determine the effect of the proposed expansion project on the wood stork.

A. The proposed project impacts suitable foraging habitat (SFH) at a location greater than 0.76 km (0.47 mile) from a colony site.

B. Project impacts to SFH is greater in scope than 0.20 hectare (one-half acre).

C. Project impacts to SFH within the Core Foraging Area (CFA) of a colony site.

D. Project provides SFH compensation in accordance with the Clean Water Act (CWA) section 404(b)(1) guidelines and is not contrary to the Habitat Management Guidelines for the Wood Stork in the Southeast Region (USFWS 1990); habitat compensation is within the appropriate CFA or within the service area of a USFWS-approved mitigation bank; and habitat compensation replaces foraging value, consisting of wetland enhancement or restoration matching the hydroperiod of the wetlands affected, and provides foraging value similar to, or higher than, that of impacted wetlands.

In accordance with the existing SJRWMD and USACE permits authorizing construction for Phase 2 of the Cemetery, 31.45 acres of wetland creation will take place on the VA-owned property on the south side of Lannie Road. This wetland creation satisfies the requirements of CWA section 404(b)(1) and provides habitat compensation sufficiently replacing the foraging value of impacted wetlands. Based upon this assessment, the proposed expansion has been determined by FWS to result in a “may affect, not likely to adversely affect” (MANLAA) ESA determination.

### 4.2.2 State Listed Species

**Little Blue Heron**

The little blue heron is listed by the FWC as threatened. The little blue heron depends on wetlands for suitable resting and breeding habitat, as well as foraging habitat. During the field survey on June 21, 2017, several little blue heron were observed within the Proposed Expansion Area foraging within the areas of standing water. Conversion of the improved pasture to construct the Phase 2 expansion would impact foraging habitat for this species. However, in accordance with the existing SJRWMD and USACE permits authorizing construction for Phase 2 of the Cemetery, as mitigation for Phase 2 impacts, VA will be constructing 31.45 acres of wetlands on the VA-owned property on the south side of Lannie Road, which will create more foraging opportunities for the little blue heron, in addition to other wading birds that utilize the area. For these reasons, it was determined that the proposed expansion would not adversely affect the little blue heron.

**Worthington’s Marsh Wren**

Worthington’s marsh wren is listed as threatened by the FWC. This species prefers tidal marshes dominated by cordgrass (*Spartina alterniflora*). Within these habitats, marsh wrens nest and forage within tall grasses of meandering tidal creeks. There are no areas within the Proposed Expansion Area that are suitable for this species, as the wetlands onsite are freshwater and not tidally influenced. During the field survey on June 21, 2017, no marsh wrens were observed within the Proposed Expansion Area. If a marsh wren is observed within the
proposed project area prior to or during construction, coordination with FWC would occur to implement the proper conservation measures. For these reasons, it was determined that the proposed expansion would not adversely affect the Worthington’s marsh wren.

4.2.3 Other Species of Concern

**Bald Eagle**

Though the bald eagle is no longer state or federally listed, it is still federally protected by the Bald and Golden Eagle Protection Act in accordance with 16 United States Code 668. The bald eagle typically uses riparian habitat associated with coastal areas, lake shorelines, and river banks. The nests are generally located near bodies of water that provide a dependable food source. According to the FWC’s online bald eagle nest locator, no nests are located within one mile of the Proposed Expansion Area and none were observed during the field survey on June 21, 2017. For these reasons, it was determined that the proposed expansion project would not affect the bald eagle.

5 CRITICAL HABITAT

The Proposed Expansion Area was assessed for the occurrence of Critical Habitat as defined by 17 CFR 35.1532. No federally-designated Critical Habitat occurs within the Proposed Expansion Area for any federally-listed species.

6 COMMITMENTS

Based on field and literature reviews, federally- and/or state-listed species have the potential to occur within the Proposed Expansion Area. In order to minimize adverse impacts to these species, the following commitments would be implemented:

Prior to construction, survey appropriate habitats within the project area to determine the presence of gopher tortoises and gopher tortoise commensal species. If burrows are observed within 25 feet of the proposed footprint of development, coordination with the FWC will occur to obtain the appropriate relocation/excavation authorization.

Prior to or concurrent with construction, VA will perform 31.45 acres of wetland creation and engage in the removal of exotic vegetation from 58.82 acres of preservation areas as defined by the approved mitigation plans within ERP-115730-003 (or any subsequent modifications) and SAJ-2006-02208 (SP-BAL).

7 SUMMARY

In summary, state- and federally-listed species were identified as having the potential to occur within the Proposed Expansion Area. The build out for the Jacksonville National Cemetery based on the 2007 Mater Plan has been approved by the USACE and formal consultation with the FWS was obtained during that permitting effort. Adverse effects to state- and or federally-listed species were not identified in previous permits. However, the VA is required to construct suitable foraging habitat for the federally listed wood stork and state listed little blue heron, thereby minimizing any potential affects to these species as a result of development of the Proposed Expansion.
8 REFERENCES


FIGURES
Figure 1: Location Map
Endangered Species Report
U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion
4083 Lannie Road Jacksonville, FL 32218 (Duval County)
Figure 2: Aerial Photograph with Proposed Expansion Area
Endangered Species Report

U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion
4083 Lannie Road Jacksonville, FL 32218 (Duval County)
Mitigation Plan
Jacksonville National VA Cemetery
Phase 2 & 3
Duval County, Florida

Phase 1a & 1b Boundary
Phase 2 Boundary
Phase 3 Boundary
Proposed Phase 2 Wetland Impacts (17.02 ac. ±)
Proposed Phase 3 Wetland Impacts (21.41 ac. ±)
Proposed Phase 2 Ditch Impacts (4.81 ac. ±)
Proposed Phase 3 Ditch Impacts (5.04 ac. ±)
Existing Upland Preservation (5.56 ac. ±)
Proposed Upland Buffer (3.32 ac. ±)
Proposed Wetland Preservation (0.25 ac. ±)
Proposed Wetland Creation (77.05 ac. ±)
Existing Wetland Preservation (58.52 ac. ±)*

* Acreage shown provided by England-Thims & Miller, Inc.


Disclaimer: The information depicted on this figure is for conceptual purposes only, serves to aid a licensed engineer or geologist in rendering professional services, and is subject to review and approval by appropriate regulatory agencies.
Figure 4: Vegetative Communities

**Legend**
- Proposed Expansion Area 60.38 acres
- Wetland 15.66 acres
- Surface Water 0.16 acres
- Existing Ph 1 Stormwater Management

**Code** | **FLUCFCS Description** | **Acres**
---|---|---
211 | Improved Pasture | 39.65
211w | Improved Pasture - Wetland | 3.18
510 | Ditch | 0.16
630 | Mixed Wetland Hardwood | 12.48

Previously Evaluated Phase 1 4.91

Totals 60.38

**Sources:**
- Aerial Photograph - Esri Base Map
- FLUCFCS - derived from the District Regulatory Wetland file
Figure 5: Listed Species
Endangered Species Report
U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion
4083 Lannie Road Jacksonville, FL 32218 (Duval County)
APPENDIX A

2007 EXPANSION SITE MASTER PLAN
Wetland Delineation Report for the
Proposed Expansion of the
Jacksonville National Cemetery
Jacksonville, Florida

GSA Contract Number: GS-10F-0120T
VA Task Order Number: VA101F-17-F-2920

Prepared for:
US Department of Veterans Affairs
Office of Construction and Facilities Management (003C4B)
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Orlando, FL 32801

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DRAFT
July 21, 2017
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Figure 4: Drainage Basins
Figure 5: USDA-NRCS Soils
Figure 6: Vegetative Communities

APPENDICES
Appendix A: SJRWMD Formal Wetland Determination
Appendix B: USACE Permit SAJ-2006-02208 (SP-BAL)
1.0 Introduction

This Wetland Delineation Report (WDR) has been prepared for the U.S. Department of Veterans Affairs (VA) as part of the VA’s proposed expansion of the Jacksonville National Cemetery, located at 4083 Lannie Road, Jacksonville, Duval County, Florida (Figure 1). This location is 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 purpose of the proposed expansion project is to create new burial capacity and other physical infrastructure within a portion of the Phase 2 development area, as identified in the VA’s Master Plan for the Jacksonville National Cemetery. Doing so would extend the longevity of the Jacksonville National Cemetery for Veterans and their eligible family members in northeast Florida.

The purpose of this WDR is to describe the methodology and results of the field investigation performed to identify and delineate aquatic resources that may be subject to regulation under federal and/or state jurisdiction within the proposed expansion area. A secondary purpose of this report is to characterize those aquatic resources found and documented within the proposed expansion area. The need for this wetland review arose because wetlands were identified in other areas of the Jacksonville National Cemetery during prior planning and development phases of the cemetery.

1.1 Proposed Expansion of the Jacksonville National Cemetery

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. In 2007, the VA completed a Master Plan for the northern portion of the property. This Master Plan identified where phased development and environmental protection areas would be located over the next 100 years. In 2009, the first phase (Phase 1 cemetery) of the Master Plan was constructed in the western portion of the northern area, and the first burials occurred that same year.

The Phase 1 cemetery is currently anticipated to reach capacity within the next several years. As a result, the VA has begun planning for the next phased cemetery expansion in accordance with the Master Plan, which identified an approximately 200-acre area (to the east of the Phase 1 cemetery) for a future Phase 2 cemetery. To date, no development has occurred within the Phase 2 cemetery boundary. However, as described in the following sections, the VA has already applied for and received state and federal permits issued for the conceptual development of the Phase 2 cemetery based on the Master Plan. These permits also define regulated resources and preservation areas within the Phase 2 boundary and the mitigation that would be required once construction and operation occur.

As part of the current expansion planning process, the VA identified an approximately 60-acre area for the proposed expansion within the southwestern portion of the Phase 2 boundary (Figure 2). This 60-acre area is identified in the RAR as the proposed expansion area, however, only approximately 45 acres within the 60-acre area would be developed, because an approximately 15-acre preservation area (where development is prohibited) is present within the eastern portion of the 60-acre area (Figure 3). In summary, the proposed 45-acre expansion would be designed according to the Master Plan and would provide new burial sections, roadways, and a stormwater management pond. Although the proposed expansion would impact selected wetlands, it would entirely avoid impacting existing preservation areas present within the Phase 2 boundary.

1.2 Jacksonville National Cemetery Regulatory Planning and Permitting History

An Environmental Assessment (EA) was completed by the VA in May 2006 to evaluate the physical,
biological, and cultural resources effects of developing a new National Cemetery at one of two sites (“City Site” or the “Wright Site”) along Lannie Road in Jacksonville, Florida. Following completion of the 2006 Final EA, the VA selected and purchased the City Site, developed the phased Master Plan, and secured the following permits from the St. Johns River Water Management District (SJRWMD) and the U.S. Army Corps of Engineers (USACE) to construct Phases 1A, 1B, and 2 based on the conceptual design presented in the Master Plan.

SJRWMD Permits

SJRWMD 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.

The SJRWMD issued a formal jurisdictional determination on February 9, 2009 (Appendix A). The VA’s contractor Environmental Services, Inc. (ESI) delineated boundaries of onsite wetlands pursuant to the methodology provided within Chapter 62-340, Florida Administrative Code, “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.

SJRWMD Permit 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 the 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 Permit 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 the 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.

Application Number 115730-5 was submitted to the SJRWMD on June 27, 2016, to modify ERP-115730-3 to allow for the construction of the Jacksonville National Cemetery Access Road (SJRWMD Permit ERP-140622-3. This modification request includes only changes to the mitigation plan; with no changes being proposed to the engineering or permitted impacts. The proposed modification is comprised of 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. SJRWMD submitted a request for additional information on July 25, 2016. A partial RAI response was submitted on November 4, 2016. This modification request
remains open and has neither been granted nor denied.

**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 ([Appendix B](#)). 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 and within the 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.

SAJ-2006-02208 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 to the cemetery property, directly adjacent to the previously identified wetland creation area. This permit remains valid through August 18, 2024.

**Summary of Remaining Permitting Needs:**

Based upon a review of permits previously issued by the SJRWMD and the USACE, prior to engaging in construction of Phase 2 and/or the proposed expansion area, 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.

**Summary of Remaining Mitigation Requirements:**

To date, none of the proposed Phase 2 cemetery has been constructed. However, unavoidable wetland impacts anticipated by this construction and the requisite compensatory mitigation requirements were reviewed and approved by regulatory agencies. 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. Additional mitigation actions will need to be implemented in order to construct Phase 2 of the cemetery. These actions include 31.45 acres of wetland creation and the removal of exotic vegetation from 58.82 acres of preservation areas as defined by the approved mitigation plans within ERP-115730-003 and SAJ-2006-
02208 (SP-BAL). The proposed expansion area will impact 3.88 acres of jurisdictional wetlands. Subsequent to the implementation of the wetland creation and wetland enhancement components of the mitigation plan, monitoring will be required to demonstrate permit compliance. The mitigation requirements are shown on Figure 3.

1.3 Applicable Wetland Regulations

USACE
The USACE has regulatory jurisdiction over Waters of the United States, including wetlands pursuant to Section 404 of the Clean Water Act and Navigable Waters of the United States pursuant to Section 10 of the 1899 Rivers and Harbors Act. Jurisdictional wetlands are delineated based upon the presence of hydric soils, hydrologic indicators, and hydrophytic vegetation in accordance with the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual for the Atlantic and Gulf Coastal Plain (USACE 2010) and Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979).

SJRWMD
The SJRWMD exercises regulatory jurisdiction over activities in wetlands in accordance with Chapter 62-330 of the Florida Administrative Code (FAC). The State of Florida defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils (§373.019 Florida Statutes). Wetland delineation methodology is defined in Chapter 62-340.300(2) of the FAC.
2.0 Background Information Review

In June 2017, a review of background information was conducted for the proposed expansion area and vicinity using readily available existing information from state and federal agency databases and published literature. The analysis was conducted to determine the presence and extent of biological and natural resources potentially occurring in the vicinity of the proposed expansion area. The findings are presented in the following sections.

2.1 Physiography

Several geomorphic features have been delineated within Duval County. The largest one is the Eastern Valley, which covers the southeastern part of the county. It is bounded on the west by the Duval Upland and on the north by the St. Mary’s Meander Plain, which makes up the northern part of the county, and within which the cemetery site is located. The plain was formed from a network of streams with a heavy sediment load that drained the northern part of the county (NRCS, 1998).

Like most of Duval County, the St. Mary’s Meander Plain is underlain by a few tens of feet of undifferentiated Quaternary sediments composed of sands, clayey sand, and clays occasionally containing limited numbers of mollusk shells. These sediments lie on Miocene Hawthorn Group sediments. Lithologic units in this group are the Penney Farms Formation, the Marks Head Formation, and the Coosawhatchie Formation. The bottom of the Hawthorn Group in the northeastern part of the county is found at approximately -420 feet NGVD (National Geodetic Vertical Datum of 1929). The Hawthorn Group in turn sits on the Ocala Limestone, consisting mostly of very pure limestone. Ranging in thickness from 250 to 400 feet, it gets progressively thicker to the northeast. The bottom of the Ocala Limestone in the St. Mary Meander Plain is found at more than -800 feet NGVD (NRCS, 1998).

2.2 Hydrology

The proposed expansion area is located within the Nassau River drainage basin (Hydrologic Unit Code (HUC) 03070205), which is comprised of several smaller sub-basins. The northern portion of the proposed expansion area is located within the Lower Thomas Creek drainage basin (HUC 030702050203) and the southern portion is located within the Middle Thomas Creek drainage basin (HUC 030702050202) (Figure 4) as defined by the Florida Department of Environmental Protection (FDEP) (FDEP 2017).

2.3 Land Use

The Jacksonville National Cemetery is located in a rural area; bounded on the north and south by pine plantations, to the west by the Montgomery Correctional Center, and to the east by rural private and residential properties. Within the cemetery property there is a model airplane field and a playground with a softball field. Undeveloped land within the cemetery property is primarily open pasture land with active cattle grazing; 64.69 acres of the cemetery property is currently managed as preservation area, in accordance with the SJRWMD and USACE permits previously discussed in Section 1.2. Other land uses in the area include rural residential, silviculture, farming, ranching, and several managed natural areas.

2.4 Wetland Ecosystems

Wetland ecosystems within the region occur along the floodplains of the Thomas Creek River, its tributaries, and within depressions in the landscape that have formed over time due to the dissolution of the limestone subsurface, typical of the karstic geology of the region (Figure 1).
2.5 Vegetation

The presence and distribution of local vegetative communities is attributable to the socioeconomic development within the rural residential and agricultural landscape of northwestern Duval County. The dispersion and density of land cover within this area is indicative of adjacent land use, development, and existing natural resources. The vegetation in the region of Duval County where the Jacksonville National Cemetery is located is dominated by farmland, silviculture, and an upland-forest/wetland-forest mosaic with some residential and commercial areas. The majority of undeveloped area within the cemetery property is improved pasture, consisting of predominantly bahiagrass and other sparse instances of ruderal plant species, which is consistent with adjacent land uses within the region.

2.6 Soils

Based on the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS 2012) and the Hydric Soils of Florida Handbook (Hurt 2007), Mascotte Fine Sand, Surrency Loamy Fine Sand, depressional, and Pelham Fine Sand, depressional, are classified as hydric soils. Pelham Fine Sand, while poorly drained, is not considered a hydric soil. The following table summarizes the soils within the proposed expansion area. A description of each mapped soil unit is provided in the following list.

- **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 (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.

- **Pelham fine sand, depressional (82)**: Similar to the Pelham fine sand, but found in depressions and very poorly drained. Shape of areas is concave. Severe ponding is anticipated for shallow excavations, roads, lawns, and landscaping.
Table 1. USDA-NRCS Soils within the Proposed Expansion Area

<table>
<thead>
<tr>
<th>Soil Map Unit</th>
<th>Soil Map Unit Name</th>
<th>Drainage Class</th>
<th>Hydric (Y/N)</th>
<th>Acres within Project Study</th>
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</thead>
<tbody>
<tr>
<td>38</td>
<td>Mascotte Fine Sand</td>
<td>Poorly drained</td>
<td>Y</td>
<td>19.94</td>
</tr>
<tr>
<td>51</td>
<td>Pelham Fine Sand, 0 to 2% slopes</td>
<td>Poorly drained</td>
<td>N</td>
<td>22.89</td>
</tr>
<tr>
<td>66</td>
<td>Surrency Loamy Fine Sand, depressional</td>
<td>Very poorly drained</td>
<td>Y</td>
<td>13.69</td>
</tr>
<tr>
<td>88</td>
<td>Pelham Fine Sand, depressional</td>
<td>Poorly drained</td>
<td>Y</td>
<td>3.86</td>
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<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>60.38</strong></td>
</tr>
</tbody>
</table>
3.0 Field Surveys

In 2008, field surveys were conducted on behalf of the VA by ESI to verify the presence and extent of biological and natural resources occurring within the future Phase 2 cemetery area.

ESI delineated boundaries of onsite wetlands pursuant to the methodology provided within Chapter 62-340, Florida Administrative Code, “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 SJRWMD Environmental Resource Permits, along with formal jurisdictional determination from the SJRMWD.

Supplemental field evaluations were performed by AECOM on June 21, 2017, to verify field conditions previously reported in the aforementioned permits, and to identify any potential utilization by listed species within the Proposed expansion area. An evaluation of listed species will be prepared under a separate Resource Avoidance Report. 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 following sections.

3.1 Wetland Survey

AECOM confirmed that within the 60.38-acre proposed expansion area, wetlands comprise 15.66 acres (Figure 4). Herbaceous wetlands (FLUCFCS 211w, Improved Pasture, wet) comprise 3.18 acres of this area and forested wetlands (FLUCFCS 630, Mixed Wetland Hardwoods) comprise 12.48 acres of this area. These wetlands are subject to the regulatory jurisdiction of the USACE and the SJRWMD. No streams were identified within the proposed expansion area.

It is noted that 11.78 acres of forested wetland within the proposed expansion area is already protected under a conservation easement prohibiting development. Additionally, this wetland is surrounded by a 4.95 acre protected upland buffer; a barbed wire fence has been installed along the boundary of the buffer to prevent cattle from grazing within its borders.

3.3 Ecological Communities and Vegetation

The proposed expansion area was characterized using the methodology described using FLUCFCS (FDOT, 1999).

**Improved Pastures (FLUCFCS 211)**

The majority of the proposed expansion area is comprised of pastureland that has been primarily used by ranchers to graze cattle. This area is dominated by bahiagrass (*Paspalum notatum*), with some patches of dog fennel (*Eupatorium capillifolium*), and blackberry (*Rubus* sp.).

**Improved Pastures (FLUCFCS 211w)**

Some of the pasture land within the proposed expansion area is wetland, vegetated with bahiagrass, smartweed (*Persicaria* spp.), soft rush (*Juncus effusus*), dwarf umbrella sedge (*Fuirena pumila*), horned beaksedge (*Rhynchosperma corniculata*), millet beaksedge (*R. miliacea*) switchgrass (*Panicum virgatum*), spadeleaf (*Centella asiatica*), hairy umbrella sedge (*F. squarrosa*), and mermaid-weed (*Proserpinaca palustris*).
**Mixed Forested Wetland (FLUCFCS 630)**

Within this community, the dominant canopy species include sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), slash pine (*Pinus elliottii*), pond pine (*P. serotina*), bald cypress (*Taxodium distichum*), blackgum (*Nyssa biflora*), water oak (*Quercus nigra*) and Chinese tallow. The understory species includes fetterbush (*Lyonia lucida*), wax myrtle (*Morella cerifera*), saw palmetto (*Serenoa repens*), and gallberry (*Ilex glabra*). The groundcover is dominated by Virginia chain fern (*Woodwardia virginica*), netted chain fern (*W. areolata*), and cinnamon fern (*Osmunda cinnamomea*).

**Wildlife**

The wetlands within the (211w) improved pastures provide foraging habitat for wading birds. The state-listed, threatened, little blue heron (*Egretta caerulea*) was observed onsite during supplemental site evaluations performed by AECOM on June 21, 2017. No additional state- or federally-listed species were observed on site. Table 2 below denotes the fauna observed within the proposed expansion area during field evaluations.

<table>
<thead>
<tr>
<th>Species Common Name</th>
<th>Species Scientific Name</th>
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</thead>
<tbody>
<tr>
<td>Little Blue Heron</td>
<td><em>Egretta caerulea</em></td>
</tr>
<tr>
<td>Red-tailed Hawk</td>
<td><em>Buteo jamaicensis</em></td>
</tr>
<tr>
<td>White Egret</td>
<td><em>Ardea alba</em></td>
</tr>
<tr>
<td>Vulture</td>
<td><em>Coragyps atratus</em></td>
</tr>
<tr>
<td>Cardinal</td>
<td><em>Cardinalis cardinalis</em></td>
</tr>
</tbody>
</table>

**3.5 Hydrology**

Local hydrology within the proposed expansion area is influenced by the seasonal pooling of stormwater runoff and perched groundwater. The most prevalent indicators of wetland hydrology observed within the delineated wetlands were saturation, inundation above ground level, and crayfish chimneys.
4.0 Conclusions

This Wetland Delineation Survey confirmed the findings of the field surveys for wetland delineations previously conducted in 2008 by ESI. A total of 15.66 acres of wetlands occur within the proposed expansion area; 3.18 acres of herbaceous wetlands and 12.48 acres of forested wetlands. The forested wetlands in the eastern portion of the proposed expansion area are preserved under an existing conservation easement as part of the mitigation strategy outlined in previously obtained regulatory permits that authorized the future development of the Phase 2 cemetery. Either prior to or concurrent with execution of ERP-115730-3 (or ERP-115730-5 if issued), VA will be required to perform exotic vegetation removal within the 58.82 acres of forested wetland preservation area and create 31.45 acres of wetlands in the southeastern portion of the cemetery property located on the south side of Lannie Road (refer to Figure 3), as defined by the approved mitigation plans within ERP-115730-3 and SAJ-2006-02208 (SP-BAL).
5.0 References


FIGURES
Figure 1: Location Map
Wetland Delineation Report
U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion
4083 Lannie Road Jacksonville, FL 32218 (Duval County)
Figure 2: Aerial Photograph with Proposed Expansion Area

Wetland Delineation Report

U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion

4083 Lannie Road Jacksonville, FL 32218 (Duval County)
Mitigation Plan
Jacksonville National VA Cemetery
Phase 2 & 3
Duval County, Florida

- Previously Permitted Phase 1a & 1b (40-031-115730-2)
- Previously Permitted Phase 1a (40-031-115730-1)
- Phase 2 Mitigation
- Phase 3 Mitigation
- 50' Drainage Easement
- Proposed Phase 2 Wetland Impacts (17.02 ac.±)
- Proposed Phase 3 Wetland Impacts (21.41 ac.±)
- Proposed Phase 2 Ditch Impacts (4.81 ac.±)
- Proposed Phase 3 Ditch Impacts (5.04 ac.±)
- Existing Upland Preservation (5.56 ac.±)
- Proposed Upland Buffer (3.32 ac.±)
- Proposed Wetland Preservation (0.25 ac.±)
- Proposed Wetland Creation (77.05 ac.±)
- Existing Wetland Preservation (58.52 ac.±)*

* Acreage shown provided by England-Thims & Miller, Inc.

Disclaimer: The information depicted on this figure is for conceptual purposes only, serves to aid a licensed engineer or geologist in rendering professional services, and is subject to review and approval by appropriate regulatory agencies.


Project: EJ06111.02
Date: Aug. 2010
Drwn/Chkd: PG/JRN
Figure: 3
Figure 4: Drainage Basins
Wetland Delineation Report
U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion
4083 Lannie Road Jacksonville, FL 32218 (Duval County)

- Proposed Expansion Area: 60.38 acres
- Middle Thomas Creek Basin
- Lower Thomas Creek Basin
- Jacksonville National Cemetery
- Thomas Creek Basin
- Nassau River Basin

1 inch = 4,167 feet
Symbol | Soil Description | Drainage Class | Acres  
--- | --- | --- | ---
38 | Mascotte Fine Sand, 0 To 2 Percent Slopes | Poorly Drained | 19.94  
51 | Pelham Fine Sand, 0 To 2 Percent Slopes | Poorly Drained | 22.89  
66 | Surrency Loamy Fine Sand, Depressional, 0 To 2 Percent Slopes | Very Poorly Drained | 13.69  
82 | Pelham Fine Sand, Depressional, 0 To 2 Percent Slopes | Poorly Drained | 3.86  
**Totals** | | | **60.38**  

Source: Esri Aerial Photograph Base Map

**Figure 5: USDA-NRCS Soils**

U.S. Department of Veterans Affairs
Jacksonville National Cemetery Expansion
4083 Lannie Road Jacksonville, FL 32218 (Duval County)
Figure 6: Vegetative Communities

Jacksonville National Cemetery Expansion

U.S. Department of Veterans Affairs
4083 Lannie Road Jacksonville, FL 32218 (Duval County)

Legend
- Proposed Expansion Area 60.38 acres
- FLUCFCS
- Wetland 15.66 acres
- Surface Water 0.16 acres
- Existing Ph 1 Stormwater Management

<table>
<thead>
<tr>
<th>Code</th>
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Sources: Aerial Photograph - Esri Base Map
FLUCFCS - derived from the District Regulatory Wetland file

Document Path: P:\DCS\Projects\ENV\60543252_JAXNATLEXP\900-CAD-GIS\920-GIS or Graphics\MXD\WDR_2017_06\VAJNC_WDR_Fig6_Vegetative Communities.mxd
APPENDIX A

SJRWMD Formal Wetland Determination
February 9, 2009

Veterans Affairs, National Cemetery Administration
810 Vermont Ave NW
Washington, DC 20420

SUBJECT: Formal Wetland Determination
Petition Number 16-031-112145-1, Duval County

Dear Sir/Madam:

Enclosed is your Formal Wetland Determination as authorized by the staff of the St. Johns River Water Management District on February 9, 2009. This determination will expire on February 09, 2014.

Issuance of this wetland determination does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies or the District for construction on the property.

In the event you sell your property, the determination can be transferred to the new owner, if we are notified by you within thirty days of the sale. Please assist us in this matter so as to maintain a valid determination for the new property owner.

Thank you for your cooperation and if this office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

Quenteria Johnson, Regulatory Information Management
Division of Regulatory Information Management

cc: District Permit File

Agent: Environmental Services
7220 Financial Way, Suite 100
Jacksonville, FL 32256
FORMAL WETLAND DETERMINATION

CHAPTER 40C-4.042, F.A.C.

PETITION NO. 16-031-112145-1

PROJECT NAME: VA Cemetery

DATE ISSUED: February 9, 2009

DETERMINATION STATEMENT:

The formal determination of the landward boundary of wetlands and other surface waters as defined by the District and as depicted on the certified survey (s) stamped approved by the District 17 December 2008. The 546.29-acre project site is located along the north and south sides of Lannie Road approximately three miles northeast of the intersection of Lem Turner Boulevard and Lannie Road on the north side of Jacksonville, Duval County. More specifically the site is located in a portion of section 38 of the Charles Seton grant, section 40 of the William Gibson and others grant, and section 41 of the William Gibson and others or Charles Seton grant, township 2-north, and range 26-east, Duval County, together with a portion of section 39 of the Charles Seton grant, section 40 of the William Gibson and others or Charles Seton grant, and section 41 of the William Gibson and others grant, township 1-north, and range 26-east, Duval County.

LOCATION:

Section(s): 40, 41
38, 40, 41

Township(s): 1N
2N

Range(s): 26E
26E

Duval County

Veterans Affairs, National Cemetery Administration
810 Vermont Ave NW
Washington, DC 20420

This document and the enclosed survey serve as the Chapter 40C-4.042, F.A.C., Formal Wetland Determination issued by the St. Johns River Water Management District. This determination is a legal document and should be kept with your other important records. The District may transfer this determination after the receipt of written notification of transfer of ownership or control of the real property.

This formal wetland determination is binding for a period of five (5) years from the date of this determination provided physical conditions on the property do not change so as to alter the wetland boundaries during that period. The District's Governing Board may revoke the Formal Wetland Determination upon finding that the petitioner has submitted inaccurate information to the District. This determination is not a permit and does not authorize any construction.

AUTHORIZED BY: St. Johns River Water Management District

[Signatures]

Kenneth A. John, Assistant Director

Kirby B. Green, III, Executive Director
Notice Of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sirwmd.com, within twenty-six (26) days of the District depositing notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 5 below. Mediation pursuant to Section 120.573, Florida Statutes, is not available.

2. If the Governing Board takes action that substantially differs from the notice of District decision, a person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the District, but this request for administrative hearing shall only address the substantial deviation. Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) at the office of the District Clerk at the mail/street address or email address described in paragraph no. 1 above, within twenty-six (26) days of the District depositing notice of final District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of final District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of final District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. Mediation pursuant to Section 120.573, Florida Statutes, is not available.

3. A person whose substantial interests are or may be affected has the right to a formal administrative hearing pursuant to Sections 120.569 and 120.57(1), Florida Statutes, where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal hearing must also comply with the requirements set forth in Rule 28-106.201, Florida Administrative Code.

4. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.
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5. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida. Petitions received by the District Clerk after 5:00 p.m., or on a Saturday, Sunday, or legal holiday, shall be deemed filed as of 8:00 a.m. on the next regular District business day. The District’s acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District’s Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at www.sjrwmd.com. These conditions include, but are not limited to, the petition being in the form of a PDF file and being capable of being stored and printed by the District. Further, pursuant to the District’s Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.

6. Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).

7. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District’s final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District’s final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.

8. A person with a legal or equitable interest in real property who believes that a District permitting action is unreasonable or will unfairly burden the use of their property, has the right to, within 30 days of receipt of the notice of District decision regarding a permit application, apply for a special magistrate proceeding under Section 70.51, Florida Statutes, by filing a written request for relief at the Office of the District Clerk located at District Headquarters, P.O. Box 1429, Palatka, FL 32178-1429 (4049 Reid St., Palatka, FL 32177). A request for relief must contain the information listed in Subsection 70.51(6), Florida Statutes. Requests for relief received by the District Clerk after 5:00 p.m., or on a Saturday, Sunday, or legal holiday, shall be deemed filed as of 8:00 a.m. on the next regular District business day.

9. A timely filed request for relief under Section 70.51, Florida Statutes, tolls the time to request an administrative hearing under paragraph nos. 1 or 2 above. (Paragraph 70.51(10)(b), Florida Statutes). However, the filing of a request for an administrative hearing under paragraph nos. 1 or 2 above waives the right to a special magistrate proceeding. (Subsection 70.51(10)(b), Florida Statutes).

10. Failure to file a request for relief within the requisite time frame shall constitute a waiver of the right to a special magistrate proceeding. (Subsection 70.51(3), Florida Statutes).
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11. Any person whose substantial interests are or may be affected who claims that final action of the District constitutes an unconstitutional taking of property without just compensation may seek review of the action in circuit court pursuant to Section 373.617, Florida Statutes, and the Florida Rules of Civil Procedures, by filing an action in circuit court within 90 days of rendering of the final District action, (Section 373.617, Florida Statutes).

12. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.

13. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 373, Florida Statutes, may seek review of the order pursuant to Section 373.114, Florida Statutes, by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy on the Florida Department of Environmental Protection and any person named in the order within 20 days of the rendering of the District order.

14. A District action is considered rendered, as referred to in paragraph nos. 11, 12, and 13 above, after it is signed on behalf of the District, and is filed by the District Clerk.

15. Failure to observe the relevant time frames for filing a petition for judicial review as described in paragraph nos. 11 and 12 above, or for Commission review as described in paragraph no. 13 above, will result in waiver of that right to review.
Notice Of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent by U.S. Mail to:

Veterans Affairs, National Cemetery Administration
810 Vermont Ave NW
Washington, DC 20420

At 4:00 p.m. this 11th day of February, 2009.

[Signature]

Division of Regulatory Information Management
Gloria Lewis, Director

St. Johns River Water Management District
Post Office Box 1429
Palatka, FL 32178-1429
(386) 329-4152
APPENDIX B

USACE PERMIT SAJ-2006-02208 (SP-BAL)
Section I: Background Information
A. Report Completion Date for Approved Jurisdictional Determination (JD):

B. District Office, File Name, and Number: Jacksonville, Westside Business Park, SAJ 2006-2208

C. Project Location and Background Information:
   State: Florida
   County/parish/borough: Duval
   City: Jacksonville
   Center coordinates of site (lat/long in degree decimal format): Lat. 30.5463° N, Long. 81.7154° W

   Universal Transverse Mercator:
   Name of nearest waterbody: Thomas Creek
   Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Thomas Creek
   Name of watershed or Hydrologic Unit Code (HUC): 3
   Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

D. Review performed for site evaluation (check all that apply):
   1. Office (Desk) Determination. Date: 28 May 2008
   2. Field Determination

Section II: Summary of Findings
A. RHA Section 10 Determination of Jurisdiction.
   There are no “navigable waters of the U.S.” within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]
   1. Waters subject to the ebb and flow of the tide.
   2. Waters that are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

B. CWA Section 404 Determination of Jurisdiction.
   There are “waters of the U.S.” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

   1. Waters of the U.S.
      a. Indicate presence of waters of U.S. in review area (check all that apply): 1
         1. TNWs, including territorial seas
         2. Wetlands adjacent to TNWs
         3. Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
         4. Non-RPWs that flow directly or indirectly into TNWs
         5. Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
         6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
         7. Impoundments of jurisdictional waters
         8. Isolated (interstate or intrastate) waters, including isolated wetlands

      b. Identify (estimate) size of waters of the U.S. in the review area:
         Non-wetland waters: 300 linear feet: ten-foot width (ft) and/or 0.18 acres.
         Wetlands: 0.00 acres.

      c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual
         Elevation of established OHWM (if known)

   2. Non-regulated waters/wetlands (check if applicable): 3
      1. Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
         Explain:

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1 Boxes checked below shall be supported by completing the appropriate sections in Section III below.
2 For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
3 Supporting documentation is presented in Section III.F.
SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1; otherwise, see Section III.B below.

1. TNW
   Identify TNW: Thomas Creek.
   Summarize rationale supporting determination: Thomas Creek is a permanently flowing stream with OHWM.

2. Wetland adjacent to TNW
   Summarize rationale supporting conclusion that wetland is "adjacent".

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

   (i) General Area Conditions:
   Watershed size: Pick List
   Drainage area: •- · · · · mi~LJit
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   □ Tributary flows directly into TNW.
   □ Tributary flows through Pick List tributaries before entering TNW.
   Project waters are Pick List river miles from TNW.
   Project waters are Pick List river miles from RPW.
   Project waters are Pick List aerial (straight) miles from TNW.
   Project waters are Pick List aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .
   Identify flow route to TNW:
   Tributary stream order, if known: .

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4 Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
5 Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
(b) General Tributary Characteristics (check all that apply):

Tributary is:  □ Natural  □ Artificial (man-made). Explain:
□ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width:  feet
Average depth:  feet
Average side slopes: Pick List.

Primary tributary substrate composition (check all that apply):
□ Silts  □ Sands  □ Concrete
□ Cobbles  □ Gravel  □ Muck
□ Bedrock  □ Vegetation. Type% cover:
□ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
Tributary geometry: Pick List
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: Pick List
Estimate average number of flow events in review area/year: Pick List
Describe flow regime:
Other information on duration and volume:
Surface flow is: Pick List. Characteristics:
Subsurface flow: Pick List. Explain findings:
□ Dye (or other) test performed:

Tributary has (check all that apply):
□ Bed and banks
□ OHWM? (check all indicators that apply):
□ the presence of litter and debris
□ clear, natural line impressed on the bank
□ changes in the character of soil
□ shelving
□ vegetation matted down, bent, or absent
□ leaf litter disturbed or washed away
□ sediment deposition
□ water staining
□ other (list):
□ Discontinuous OHWM.7 Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
□ High Tide Line indicated by:
□ Mean High Water Mark indicated by:
□ survey to available datum;
□ oil or scum line along shore objects
□ fine shell or debris deposits (foreshore)
□ physical markings/characteristics
□ tidal gauges
□ other (list):

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:
Identify specific pollutants, if known:

7A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody’s flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

7bid.
(iv) Biological Characteristics. Channel supports (check all that apply):
☐ Riparian corridor. Characteristics (type, average width):
☐ Wetland fringe. Characteristics:
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
• Wetland size: acres
• Wetland type. Explain:
• Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain:
(b) General Flow Relationship with Non-TNW:
Flow is: Pick List. Explain:
Surface flow is: Pick List.
Characteristics:
Subsurface flow: Pick List. Explain findings:
☐ Dye (or other) test performed:
(c) Wetland Adjacency Determination with Non-TNW:
☐ Directly abutting
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain:
☐ Separated by berm/barrier. Explain:
(d) Proximity (Relationship) to TNW
Project wetlands are Pick List river miles from TNW.
Project waters are Pick List aerial (straight) miles from TNW.
Flow is from: Pick List.
Estimate approximate location of wetland as within the Pick List floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):
☐ Riparian buffer. Characteristics (type, average width):
☐ Vegetation type/percent cover. Explain:
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: Pick List
Approximately ( ) acres in total are being considered in the cumulative analysis.
For each wetland, specify the following:

- Directly abuts? (Y/N)
- Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
   - TNWs: _ near feet, width (ft), Or, __ acres.
   - Wetlands adjacent to TNWs: __ acres.

2. RPWs that flow directly or indirectly into TNWs.
   - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: It was determined that at least portions of the upland-cut ditches on-site have standing water at least three months of the year..
Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: 300 linear feet ±10 width (ft).
☐ Other non-wetland waters:  acres.
Identify type(s) of waters:

3. Non-RPWs that flow directly or indirectly into TNWs.
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

☐ Tributary waters:  linear feet width (ft).
☐ Other non-wetland waters:  acres.
Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands directly abutting an RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:  acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:  acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area:  acres.

7. Impoundments of jurisdictional waters.

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain:
☐ Other factors. Explain:

8See Footnote 3.
9To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
10Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.
Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
- Identify type(s) of waters: .
- Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
- Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):
- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- Data sheets prepared/submitted by or on behalf of the applicant/consultant:
- Office concurs with data sheets/delineation report.
- Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey of Duval County, FL (USDA, NRCS 1998)
- National wetlands inventory map(s). Cite name: .
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): 2007.
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: