Final Site-Specific Environmental Assessment: Proposed Construction and Operation of the South Florida National Cemetery Expansion 6501 N State Road 7, Lake Worth Palm Beach County, Florida

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

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EXECUTIVE SUMMARY

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 the Phase 2 cemetery expansion within an approximately 76-acre area located in the northern portion within the existing boundary of the South Florida National Cemetery at 6501 N State Road 7, Lake Worth, Palm Beach County, Florida. South Florida National Cemetery is currently utilizing existing burial space and capacity at a rate that is projected to exhaust existing developed gravesites within the next 4 to 6 years. Implementing the Proposed Action would allow VA to continue providing burial opportunities needed by Veterans and their families in the south Florida region by providing additional casket, columbarium, and in-ground cremation sites, as well as supporting infrastructure including a new flag assembly area, extended roadways, irrigation systems, landscaping, stormwater management, and operational facility improvements.

The Phase 2 expansion is consistent with the existing 2005 Master Plan that details the overall phased development of the South Florida National Cemetery and would be constructed and operated according to VA's NCA Facilities Design Guide.

The ***purpose*** of the Proposed Action is to enable the NCA to continue providing interment benefits to eligible Veterans and their families by further extending the longevity of the South Florida National Cemetery.

The Proposed Action is ***needed*** to allow the NCA to continue meeting its goal of providing eligible Veterans and their families with reasonable access to VA burial options and address the depletion of grave sites.

The following two alternatives are analyzed in this SEA:

- The ***Proposed Action*** is to implement the Phase 2 expansion according to the 2005 Master Plan for the South Florida National Cemetery. The expansion would occur within an approximately 76-acre area within the northern portion of the existing South Florida National Cemetery property. No new property would be acquired. The Proposed Action would provide approximately 9,750 pre-placed crypt sites, 4,170 in ground cremain sites, and 6,000 columbarium niches; roadways connecting the new burial areas to the existing central roadway; stormwater retention basins to accommodate the increased run-off; landscaping; extension of irrigation utilities to support the landscaping in the new burial areas; and a flag assembly area. The Proposed Action also includes physical improvements to a 20-acre parcel, owned by VA, that abuts the southwestern border of the South Florida National Cemetery. Improvements at the 20-acre parcel include demolition of a former greenhouse and fencing the perimeter of the parcel. The Proposed Action extends the longevity of the South Florida National Cemetery and accommodates future long-term burial needs of future generations of Veterans and their families in south Florida.
- The ***No Action*** alternative is to maintain the South Florida National Cemetery as it presently exists and not implement any of the elements of the Proposed Action. Under the No Action alternative, the longevity of the South Florida National Cemetery would not be extended, gravesite depletion would continue without the addition of new capacity, and future generations of Veterans and their families would increasingly lack long-term, reasonable access to burial benefits at a National Cemetery in south Florida. The nearest National Cemetery, the Sarasota National Cemetery, is approximately 170 miles to the west/northwest of the South Florida National Cemetery. Traveling more than 75 miles from the south Florida region places an undue burden on Veterans and their families. Thus, the No Action alternative would not meet the purpose and need of the Proposed Action.

The following table summarizes the potential environmental impacts of the Proposed Action and the No Action alternative.

Resource / Issue	Proposed Action	No Action
Meets Purpose and Need for Action	Yes.	No.
Aesthetics	Short-term, direct, minor, less-than-significant adverse impact from clearing and presence of heavy construction equipment. Long-term, direct, moderate beneficial impacts from converting invasive forest vegetation to a park-like setting during operation. *See Section 3.1 for more information.*	None.
Air Quality	Short-term, direct, negligible, less-than-significant adverse impact from dust and construction equipment emissions, which are below *de minimis* thresholds. Long-term, direct, negligible adverse impact from routine maintenance operations. Beneficial impact by avoiding the need for visitors to travel longer travel distances and generate more emissions. *See Section 3.2 for more information.*	Long-term, negligible, less-than-significant adverse impact from vehicle emissions traveling to a National Cemetery outside of the south Florida region.
Cultural Resources	No impact on cultural resources. No known cultural resources at the main South Florida National Cemetery or 20-acre parcel. Implement the 'Inadvertent Discovery' plan and coordinate with SHPO and Native American Tribes if artifacts or remains uncovered during construction and operation, and follow proper notification and management procedures. *See Section 3.3 for more information.*	None.
Geology, Topography, and Soils	No impact on geology. Long-term, direct, negligible, less-than-significant adverse impact on topography due to grading. Short-term, minor impact on soil quality due to construction disturbance. Impacts further minimized through BMPs per Florida NPDES Construction General Permit and associated Stormwater Pollution Prevention Plan and Soil Erosion and Sedimentation Control Plan. Maintain equipment and refuel in impervious area to avoid accidental releases to soil. No prime farmland present. *See Section 3.4 for more information*.	None.
Hydrology and Water Quality	Short-term, direct, negligible, less-than-significant adverse impacts to surface water, minimized by BMPs to reduce sedimentation of run-off during construction and operation. *See Section 3.5 for more information.*	None.
Wildlife and Habitat	Short-term, minor, less-than-significant adverse impacts from clearing approximately 50 acres of low-quality melaleuca forest for the expansion, minimized by following permitted design and protection measures to avoid impacts to federal and state listed wildlife. No listed flora present. *See Section 3.6 for more information*.	None.
Noise	Short-term, direct, negligible, less-than-significant adverse impact from construction machinery, minimized by natural vegetated borders and worker protections. Long-term, direct, negligible, less-than-significant operational impacts from grounds maintenance equipment. *See Section 3.7 for more information.*	None.
Land Use	No impact on zoning or land use. *See Section 3.8 for more information.*	None.

Resource / Issue	Proposed Action	No Action
Floodplains, Wetlands, and Coastal Zone Management	Long-term, direct, minor, less-than-significant adverse impact on wetlands, minimized by design and compliance with USACE IP, SFWMD ERP, FDEP NPDES construction permit. The Proposed Action is not anticipated to affect floodplains or coastal zone management areas. *See Section 3.9 for more information.*	None.
Socioeconomics	Short-term, direct, negligible, beneficial but less-than-significant impact on the local economy from purchasing construction materials from local or regional suppliers and hiring local construction workers. Negligible impact during operation. Long-term, negligible, beneficial but less-than-significant impact by reducing travel expenses if cemetery was not expanded. *See Section 3.10 for more information.*	Long-term, negligible adverse impact on families who must travel outside of south Florida for visitations.
Community Services	Long-term, direct, significant beneficial impact by providing additional burial capacity and extending longevity of the South Florida National Cemetery. No impact on other community services. *See Section 3.11 for more information.*	Long-term, significant adverse impact on families of Veteran's buried more than 75 miles beyond south Florida and who must travel longer distances for visitation. Not in compliance with *Servicemembers Civil Relief Act.*
Solid and Hazardous Materials	Short-term, direct, negligible, less-than-significant impacts due to increase in solid waste (excess construction materials and demolition debris that cannot be recycled) and abatement of asbestos and lead paint prior to demolition of legacy buildings at 20-acre parcel. and negligible during operations. Long-term, direct, negligible, less-than-significant adverse operational impact from increased visitor wastes and excess soils. *See Section 3.12 for more information.*	None.
Transportation and Parking	Short-term, negligible, direct, negligible, less-than-significant adverse impact from construction traffic within the National Cemetery, minimized by designated travel routes and scheduling to avoid disrupting memorial services. *See Section 3.13 for more information*.	None.
Utilities	Long-term, direct, negligible, less-than-significant adverse impact during operation due to increased electrical use and irrigation water for the new expansion area. *See Section 3.14 for more information.*	None.
Environmental Justice	No impact on Environmental Justice. *See Section 3.15 for more information.*	None.
Potential for Generating Substantial Controversy	Proposed Action would be positively perceived and widely accepted by the public. *See Section 3.17 for more information.*	Substantial adverse public reaction if expansion is not implemented, resulting in gravesite depletion.

When considered cumulatively, impacts from the Proposed Action and those from past projects and probable future projects at, and in the vicinity of, the South Florida 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 significant adverse level on a cumulative basis due to the unmitigated impact on Community Services associated with a decrease in the longevity of the South Florida National Cemetery and a lack of burial opportunities at a National Cemetery in south Florida.

Agency and Public Involvement

VA involved regulatory agencies and the public in decision-making for this Proposed Action. A Notice of Availability (NOA) announcing the release of a Draft SEA for a 30-day comment period was published in the *Palm Beach Post* on March 28 and 31, 2019. The Draft SEA was available for review in print at the South Florida National Cemetery and at the Lantana Road Branch of the Palm Beach County Library at 4020 Lantana Road, Lake Worth, Florida, 33462, and in electronic format at VA's website at http://www.cem.va.gov/cem/EA.asp. No comments were received from the public during the 30-day review period.

VA mailed letters to selected federal, state, and local governmental agencies and Native American Tribes, informing them of the availability of the Draft SEA and the opportunity to comment during the 30-day review period. Comments were received from US Environmental Protection Agency, US Fish and Wildlife Service, Seminole Nation of Oklahoma, South Florida Water Management District, and Palm Beach County. The regulatory agency correspondence has been incorporated into the Final SEA and were considered prior to a decision being made on whether or not to implement the Proposed Action. None of the comments were opposed to the Proposed Action nor required revisions to the analyses or conclusions presented in the Draft SEA. Copies of correspondence are included in Appendix A.

Conclusion

Based on comments received from regulatory agencies on the Draft SEA, VA has completed this Final SEA without requiring substantive changes from the prior Draft SEA. As previously concluded in the Draft SEA and reiterated in this Final SEA, no significant impacts of an adverse nature to the environmental resources presented herein would result from construction and operation of the Proposed Action.

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APPENDICES

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	*Definition*
ACI	Archaeological Consultants, Inc.
ACM	Asbestos-Containing Materials
amsl	above mean sea level
APE	Area of Potential Effect
BMP	Best Management Practice
BO	Biological Opinion
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGP	Construction General Permit
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CWA	*Clean Water Act*
CZMA	*Coastal Zone Management Act*
dBA	A-weighted decibel
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	*Energy Independence and Security Act*
EO	Executive Order
ERM	Palm Beach County Department of Environmental Resources Management
ERP	Environmental Resource Permit
ESA	Environmental Site Assessment
FAC	Florida Administrative Code
FCMP	Florida Coastal Management Program
FDEP	Florida Department of Environmental Protection
FDHR	Florida Division of Historical Resources
FEMA	Federal Emergency Management Agency
FFWCC	Florida Fish and Wildlife Conservation Commission
FIRM	Flood Insurance Rate Map
FNAI	Florida Natural Areas Inventory
FONSI	Finding of No Significant Impact
FPPA	*Farmland Protection Policy Act*
GHG	Greenhouse gas
GPD	gallons per day
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
IP	Individual Permit
LAUS	Local Area Unemployment Statistics Program
LBP	Lead-based Paint
NAAQS	National Ambient Air Quality Standards
NAGPRA	*Native American Graves Protection and Repatriation Act*
NCA	National Cemetery Administration
NEPA	*National Environmental Policy Act*

Acronym/Abbreviation	*Definition*
NESHAP	National Emission Standard for Hazardous Airborne Pollutants
NHPA	National Historic Preservation Act
NO_2	Nitrogen Dioxide
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NO_x	Nitrous Oxides
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	Ozone
OCFM	VA Construction and Facilities Management Office
OSHA	Occupational Safety and Health Administration
Pb	Lead
PBCHD	Palm Beach County Health Department
PM	Particulate Matter
ROG	Reactive Organic Gases
ROI	Region of Influence
SCAQMD	South Coast Air Quality Management District
SCH	Florida State Clearinghouse
SEA	Site-Specific Environmental Assessment
SESC	Soil Erosion and Sedimentation Control
SFWMD	South Florida Water Management District
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SOP	Standard Operating Procedure
SO_x	Sulfur Oxides
SWA	Solid Waste Authority
SWPPP	Stormwater Pollution Prevention Plan
U.S.	United States
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Services
USGS	United States Geological Survey
VA	United States Department of Veterans Affairs
VOC	Volatile Organic Compound

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. The NCA maintains approximately 3.7 million gravesites at 136 National Cemeteries and 33 Soldiers' Lots and monument sites in 40 states and Puerto Rico (NCA, 2019). The mission of VA's Construction and Facility Management Office (OCFM) is to advance VA's larger mission in support of the nation's Veterans by planning, designing, constructing, and acquiring major facilities, and by setting design and construction standards.

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

1.1 Background

In 2001, NCA identified the need to construct a new National Cemetery to serve the south Florida region. Three different sites were identified, and the potential impact from developing each site as a typical National Cemetery was assessed and documented in a Final Environmental Assessment (EA) (VA, 2001). Based on the Final EA and a subsequent Finding of No Significant Impact (FONSI), NCA selected a 313-acre property, formerly used for agricultural purposes, located at 6501 N State Road 7, Lake Worth, Palm Beach County, Florida (Figure 1). The Final EA and FONSI indicated that once VA completed a site-specific design for the development of the proposed South Florida National Cemetery at the site, then VA would prepare subsequent, tiered EAs to more precisely analyze and evaluate the potential effects associated with its construction and operation.

VA purchased the 313-acre property in 2002 and began preparing a Master Plan for the phased full build-out of the South Florida National Cemetery. The Master Plan design anticipated unavoidable adverse impacts to selected wetlands and other sensitive resources at the property. To mitigate these potential impacts, VA established on-site preservation areas (where development was prohibited) and purchased off-site wetland mitigation credits from the Loxahatchee Mitigation Bank in advance of actual development. These preservation commitments and mitigation actions were documented in permits issued by the South Florida Water Management District (SFWMD) in July 2005 and the U.S. Army Corps of Engineers (USACE) in September 2005. Additionally, based on these approved permits, VA finalized the *Overall Cemetery Master Site Plan* in November 2005 ("2005 Master Plan") (VA, 2005).

In 2007, VA began constructing Phase 1 of the South Florida National Cemetery according to the 2005 Master Plan. The Phase 1 cemetery covered approximately 100 acres within the central portion of the 313-acre parcel (Figure 2). The Phase 1 cemetery included burial areas containing traditional gravesites, in-ground interment of cremated remains, and the physical infrastructure needed to support the Phase 1 cemetery and the majority of planned future expansion phases. The physical infrastructure included an administration/public information center, maintenance building, two committal service shelters, two access roads, a main entrance, a drainage/stormwater management system, and utility connections. That same year, the South Florida National Cemetery opened as the nation's 125th National Cemetery, serving the needs of the estimated 400,000 Veterans living within a 75-mile radius of the cemetery.

In 2014, VA evaluated an opportunity to acquire an approximately 20-acre parcel located adjacent to the southwest corner of the South Florida National Cemetery (Figure 2). The 20-acre parcel, located at 6905 Park Lane Road, Lake Worth, Palm Beach County, Florida, was a former agricultural nursery, improved with planting areas and several outbuildings. In 2014, VA completed an EA to assess and document the potential environmental effects associated with acquiring the 20-acre parcel and developing it as a future

Figure 1. Site Location

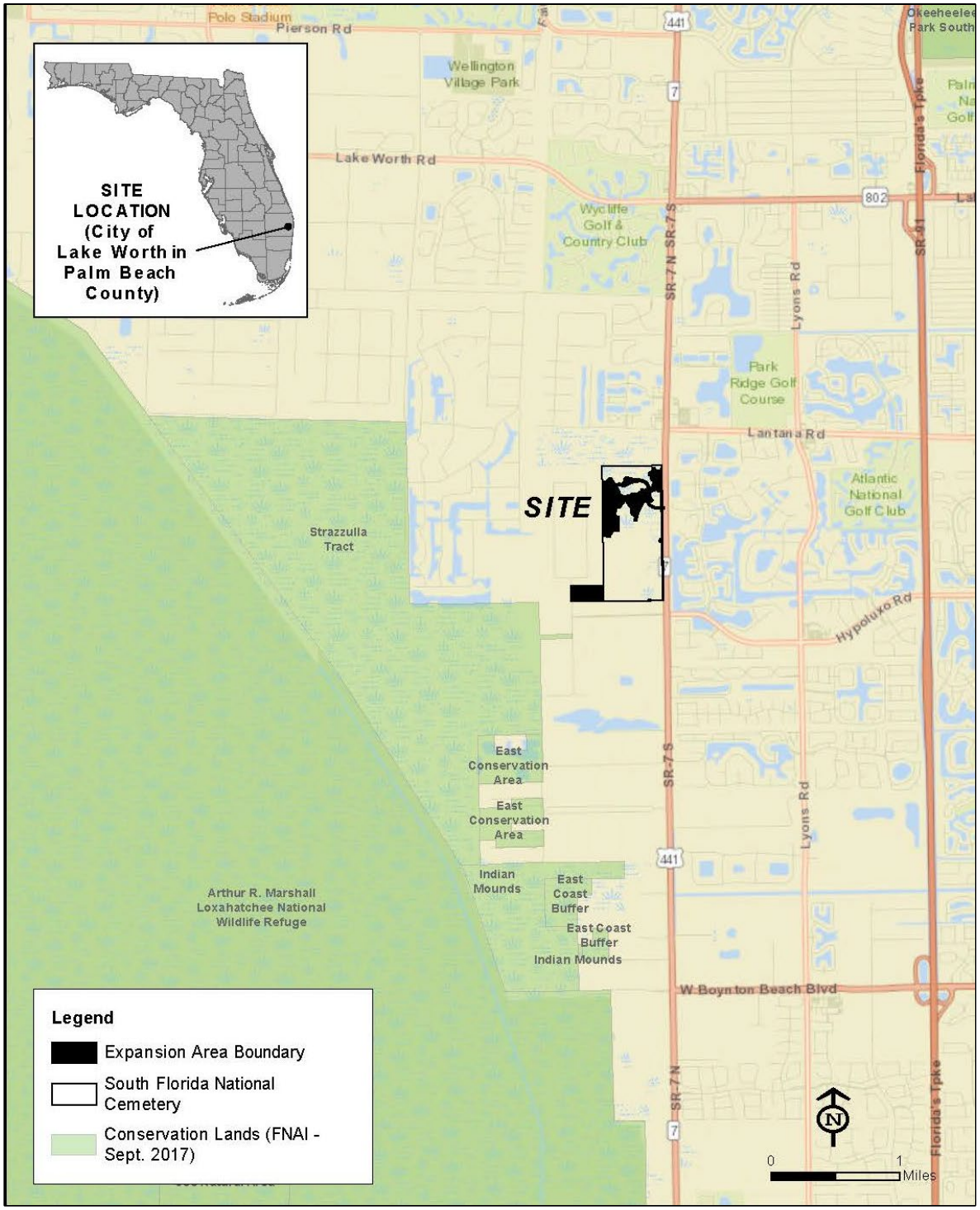
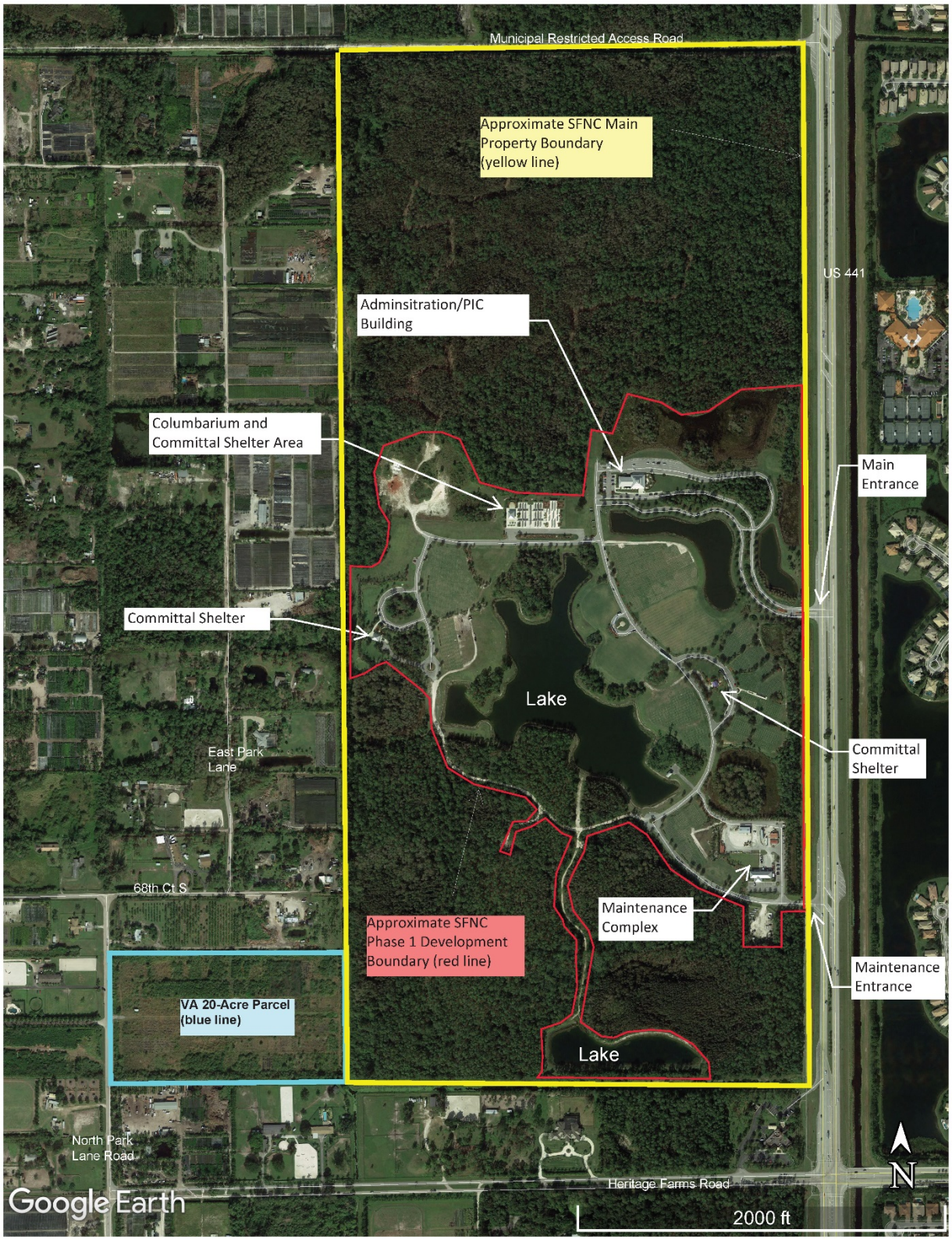


Figure 2. Phase 1 Cemetery Detail Plan



cemetery expansion phase (VA, 2014). Based on the findings of the Final EA, VA in March 2014 issued a FONSI for the proposed acquisition and development of the 20-acre parcel (VA, 2014). VA subsequently purchased the property in 2014. To date, VA has not developed any portion of the 20-acre parcel, nor has the 2005 Master Plan been updated to include the 20-acre parcel. However, VA retains the option to develop the 20-acre parcel, as needed, to accommodate future long-term expansion needs at the South Florida National Cemetery.

As previously described, the 2005 Master Plan and associated permits state that the South Florida National Cemetery would be expanded in planned phases by developing new burial sections within permitted areas of the original 313-acre parcel. To assess the need for new burial sections, in 2016 VA compared existing burial capacity (provided by the Phase 1 cemetery) with projected burial needs in south Florida. VA concluded that the Phase 1 cemetery did not have sufficient capacity to meet projected demand, but the demand could be met by constructing new burial sections within the South Florida National Cemetery.

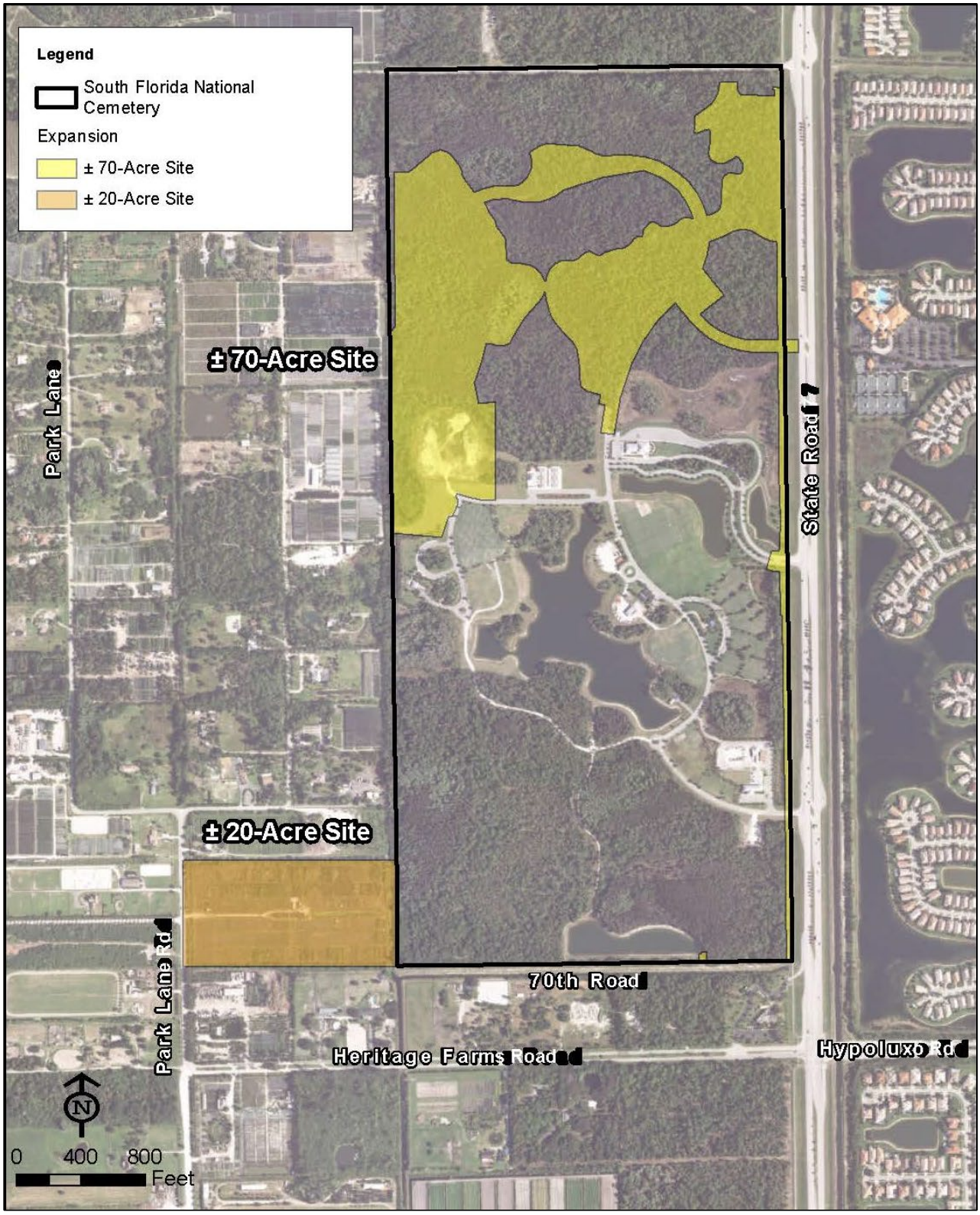
Subsequently, VA began planning for a Proposed Action to include a Phase 2 cemetery expansion that would be designed according to the 2005 Master Plan and be consistent with USACE and SFWMD permits specifying where development could occur within the original 313-acre parcel. As part of the Proposed Action, VA would also make improvements to the 20-acre parcel by removing legacy outbuildings and installing fencing around the perimeter of the parcel. Further details describing the Proposed Action elements and its alternatives are presented in Section 2.

Accordingly, VA has prepared this SEA to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with implementing the Proposed Action. Additionally, this SEA evaluates the potential impacts associated with taking no action (i.e. not implementing the Proposed Action), where the conditions as they currently exist at the South Florida National Cemetery would remain unchanged.

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

- The ***Proposed Action*** is to expand the South Florida National Cemetery according to the 2005 Master Plan and existing federal and state permits. The expansion would occur within an approximately 76-acre area in the northern portion of the existing South Florida National Cemetery property (Figure 3). The Proposed Action would provide approximately 9,750 pre-placed crypt sites, 4,170 in ground cremain sites, and 6,000 columbarium niches; a roadway connecting new and existing burial areas; grading to manage stormwater; landscaping; extension of irrigation utilities to support the landscaping in the new burial areas; and a flag assembly area. VA would also demolish outbuildings at the 20-acre parcel and construct fencing around its perimeter. The Proposed Action would extend the longevity of the South Florida National Cemetery and accommodate long-term burial needs of future generations of Veterans and their families in the south Florida region.
- The ***No Action*** alternative would maintain the South Florida National Cemetery as it presently exists. The current burial capacity at the South Florida National Cemetery, which is being rapidly depleted, would not be increased, and associated infrastructure improvements at the main cemetery and at the 20-acre parcel would not be implemented. Under the No Action alternative, the longevity of the South Florida National Cemetery would not be extended, and future generations of eligible Veterans and their families increasingly would not have long-term, reasonable access to burial benefits at a National Cemetery in south Florida. The nearest National Cemetery, the Sarasota National Cemetery, is located approximately 170 miles to the west/northwest of the South Florida National Cemetery. 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 the south Florida region. Thus, the No Action alternative would not meet the purpose and need for action.

Figure 3. Proposed Action Activity Areas



1.2 Purpose and Need

The ***purpose*** of the Proposed Action is to enable the NCA to continue providing interment benefits to eligible Veterans and their families by further extending the longevity of the South Florida National Cemetery.

The Proposed Action is ***needed*** to allow the NCA to continue meeting its goal of providing eligible Veterans and their families with reasonable access to VA burial options and address the depletion of grave sites.

If the Proposed Action is not implemented the longevity of the South Florida National Cemetery would not be extended and future generations of eligible Veterans and their families increasingly would not have long-term, reasonable access to burial benefits at a National Cemetery in the south Florida region. Additionally, Veterans and their families and visitors would be required to travel more than 75 miles to reach the nearest National Cemetery, which is the Sarasota National Cemetery in Sarasota, Florida, approximately 170 miles to the northwest. Sarasota and other National Cemeteries in Florida are not located within a reasonable distance of Veterans and their families in the south Florida region.

1.3 Regional Background

The South Florida National Cemetery is located at 6501 N State Road 7, Lake Worth, Palm Beach County, Florida. It is located in a highly developed mixed residential/commercial area, approximately 5 miles west of the Florida Turnpike interchange (Lake Worth Road exit) and 10 miles west of the Interstate 95 interchange; approximately 14 miles southeast of downtown Lake Worth, Florida; 20 miles south-southwest of West Palm Beach, Florida; 23 miles north of Boca Raton, Florida; and 61 miles north of Miami, Florida (Figure 1).

1.4 Existing Site Details

As of December of 2017, approximately 21,000 interments have been completed within the Phase 1 portion of the South Florida National Cemetery. However, interment areas within the Phase 1 cemetery are limited, while the demand for reasonable burial options for Veterans in south Florida continues to increase. On average, there are 10 to 20 funeral services per weekday, with Monday and Friday being the busiest days, resulting in approximately 2,500 to 5,000 burials per year. Approximately 80 percent of the burials are for Veterans and are accompanied by a three-to five-gun salute; the remaining 20 percent of burials are for Veterans' relatives.

1.5 Regulatory Requirements

This SEA is 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 Part 26), and VA's NEPA Interim Guidance for Projects (VA, 2010). These requirements specify that VA must evaluate the potential environmental impacts of VA facilities, operations, and related funding decisions prior to taking action. VA must apply the NEPA review process and use the information to make an informed decision prior to undertaking a proposed action. An EA provides sufficient evidence and analysis for determining whether an action would cause significant environmental impacts (requiring an Environmental Impact Statement [EIS]) or the agency can issue a 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 2001 Final EA for initial siting and future development of the South Florida National Cemetery (VA, 2001), and the 2014 Final EA for acquisition and future expansion of the 20-acre parcel (VA, 2014). This approach is in full compliance with CEQ Regulations that state that

NEPA documents should be "analytic rather than encyclopedic" (40 CFR Part 1502.2a) and that scoping should be used to "identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (40 CFR Part 1506.3), narrowing the discussion of these issues in the statement [EA] to a brief presentation of why they would not have a significant effect on the human environment or providing a reference to their coverage elsewhere" (40 CFR Part 1501.7(a)(3)).

Accordingly, VA is using "Incorporation by Reference" per 40 CFR Part 1502.21 and "Tiering" per 40 CFR Part 102.20 to reduce the volume of this SEA and is relying on information previously developed and analyzed in the two prior Final EA documents (VA, 2001; VA, 2014).

1.6 Decision Making

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 in accordance with CEQ NEPA-implementing regulations.

The purpose of this SEA is to inform federal decision makers and the public of the potential environmental effects of the Proposed Action and its considered alternatives, prior to making a federal decision to move forward with the Proposed Action. In this manner, the federal decision makers can make a fully informed decision, aware of the potential environmental effects of the Proposed Action. The intended purposes of this SEA are to:

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

As the decision document for this proposed federal undertaking, this SEA also identifies the actions to which VA would commit to minimize environmental effects, as required under NEPA, CEQ Regulations, 38 CFR Part 26, and VA's NEPA guidance (VA, 2010).

The decision to be made is whether, having considered the potential physical, environmental, cultural, and socioeconomic effects, VA should implement the Proposed Action and, as appropriate, carry out measures to reduce its adverse effects on the environment through implementation of the Best Management Practices (BMP), in combination with preservation and mitigation requirements specified in the 2005 Master Plan and USACE and SFWMD permits.

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. 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

2.2.1 Phase 2 Expansion

Under the Proposed Action, the Phase 2 expansion would be located within an approximately 76-acre area in the northern portion of the South Florida National Cemetery. The expansion would provide approximately 8-10 years of burial capacity and include several new infrastructure elements and improvements as described in the following list. Additionally, the Phase 2 expansion design incorporates measures to minimize and avoid adverse impacts to the environment and would be consistent with the 2005 Master Plan and existing USACE and SFWMD permits. These minimization and avoidance design measures are presented below.

- Columbarium – Columbarium sites would be graded and have multiple sections of 4 to 5 niches high (approximately 7 to 8 feet in total height) with a border of landscaped grounds and existing forest. The new columbarium would have capacity for approximately 6,000 interments.
- In-Ground Burial Section – Burial sections for in-ground cremains, in-ground traditional gravesites and pre-placed crypts would be graded and separated from other interment areas using landscaped vegetation. Capacity would be approximately 13,920.
- Flag Assembly Area – A flag assembly area would be constructed in the central western portion of the expansion area. The area would be graded and finished with hardscaping and native, non-invasive vegetation.
- Roadways – A new asphalt roadway, approximately 1.5 miles long, would be constructed to connect the flagpole assembly area and new burial sections to the existing Phase 1 cemetery roadway. The new roadway base would be graded and compacted prior to paving. The roadway would be approximately 18-24 feet wide. No modifications to existing roadways would be required. No new parking areas would be created or required because visitors would continue to be allowed to park on the roadway shoulder adjacent to burial sections.
- Landscaping – The expansion area would be landscaped to provide privacy and in a manner that is consistent with the existing cemetery. Planted vegetation would primarily be turf grass, including Celebration bermudagrass®, St. Augustine grass (*Stenotaphrum secundatum*), and Bahiagrass (*Paspalum notatum*).

The following paragraphs summarize major design elements incorporated into the Proposed Action to minimize and/or avoid adverse impacts to the natural environment.

- *Avoidance of Environmentally Sensitive Areas*. The Phase 2 expansion area will entirely avoid preservation areas specified in the 2005 Master Plan (VA, 2005) and in the existing SFWMD Environmental Resource Permit (ERP) number 50-06978-P issued in July 2005, and the USACE Individual Permit (IP) number SAJ-2004-637 (IP-AAZ) issued in September 2005. A reauthorization of the USACE IP would be obtained prior to construction of the Phase 2 expansion.

  Specifically, within the approximately 76-acre expansion area, only 62.6 acres will be developed, while the remaining 7.4 acres will be preserved. This includes a 4.1-acre cypress preserve area and a 3.3-acre wetland restoration preserve area.

- *Avoidance and Protection of Listed Species*. Prior to construction, VA will conduct surveys for the state-listed gopher tortoise (*Gopherus polyphemus*). If present, a permit from Florida Fish and Wildlife Conservation Commission (FFWCC) would be obtained to relocate individual animals to an approved off-site recipient location.

- *Stormwater Management*. The Proposed Action would create approximately 230,000 square feet of new impervious surfaces. This includes approximately 160,000 square feet associated with the new roadway, with the remainder from the columbarium and flag assembly area. The additional volume of stormwater run-off would be managed onsite using a combination of a new pond that would be interconnected to the existing network of ponds.

  As part of the design process, VA would also comply to the maximum extent technically feasible with the U.S. Environmental Protection Agency's (USEPA) Technical Guidance on Implementing the Stormwater Run-off Requirements for Federal Projects under Section 438 of the *Energy Independence and Security Act* (EISA) (USEPA, 2009a), as well as the Florida Department of Environmental Protection (FDEP) National Pollution Discharge Elimination System (NPDES) Construction General Permit requirements, which includes the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and a Soil Erosion and Sedimentation Control (SESC) Plan.

- *Utility Requirements Irrigation Water Supply*. Operation of the Phase 2 expansion would require consumption of water to irrigate the new landscaped areas. The new and existing on-site surface water retention ponds will continue to be used as the irrigation water supply. No municipal potable water would be used for irrigation.

  Based on the 2005 Master Plan, the Phase 2 expansion includes approximately 25 acres of irrigated landscaping. The estimated watering needs for this area are approximately 150,000 gallons per day (GPD) and approximately 55,000,000 gallons per year.

2.2.2 20-Acre Parcel Improvements

The 20-acre parcel was formerly used a commercial nursery prior to VA's purchase. Two former nursery buildings are dilapidated (each is approximately 25 by 75 feet) and known to contain asbestos and lead-based paint (LBP). As part of the Proposed Action, a licensed contractor to VA would abate the asbestos and LBP. The buildings would then be demolished, and the debris would be transported off-site for disposal. Additional improvements include the removal of several temporary structures, including one well shed, two storage trailers, and two pump shelters. A barbed wire fence would also be installed around the perimeter of the 20-acre parcel; the fence footings would be landward of the top of bank of the drainage ditches surrounding the parcel.

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 Part 1502.14). For this project, No Action is defined as not implementing the Proposed Action and maintaining the South Florida National Cemetery as it currently exists.

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 south Florida and therefore would not meet the purpose and need for action. Under the No Action alternative, long-term reasonable access to burial benefits would not be provided to the estimated 400,000 Veterans living in south Florida or their families. Because the nearest National Cemetery is the Sarasota National Cemetery in Sarasota, Florida, approximately 170 miles to the northwest, Veterans and their families residing in south Florida would continue to be underserved in the future; in many cases, this would require Veterans and their families to travel more than 75 miles to reach another National Cemetery, or use a private cemetery. The distribution of National Cemeteries in the region would be unequal, and VA would not comply with the requirements of the *Servicemembers Civil Relief Act*. Furthermore, for survivors of deceased Veterans, the No Action alternative would result in a hardship, because it would require burial and visitation at a National Cemetery located more than 75 miles outside of the south Florida region. Likewise, 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.

Under the No Action alternative, the 20-acre parcel would not be improved. This is an unfeasible alternative. There is no fencing to prevent unauthorized access to the parcel, increasing the risk of trespassing and access to the dilapidated outbuildings that continue to deteriorate (there is no plan to maintain them under the No Action alternative) and have potential to release small quantities of asbestos-containing materials (ACM) and LBP to the environment.

2.4 Alternatives Eliminated from Detailed Consideration

The 2005 Master Plan (VA, 2005) and SFWMD and USACE permits specify the areas where development and preservation would occur within the 313-acre property and specify the off-site mitigation requirements associated with implementing the 2005 Master Plan design. Therefore, to remain consistent with these permits, VA is utilizing the 2005 Master Plan as the design basis for the Phase 2 expansion associated with the Proposed Action. No other reasonable design alternatives were identified.

Therefore, only the Proposed Action and the No Action alternative were identified for detailed consideration in this SEA.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section includes a description of existing conditions at the South Florida National Cemetery, and a detailed assessment of the potential effects of the Proposed Action and the No Action alternative on each environmental resource. The assessment considered the analyses and findings presented in the Final EA for the initial site acquisition (VA, 2001), as well as the 2014 Final EA for the 20-acre parcel (VA, 2014). For the Phase 2 expansion component of the Proposed Action, updated assessments were completed for all environmental resource topics. The findings and conclusions previously presented in the 2014 Final EA for the 20-acre parcel (VA, 2014) remain generally unchanged for the activities currently proposed for this parcel; however, for selected environmental resources that include an updated assessment, a separate subheading ("*20-Acre Parcel Improvements*") is included for that resource.

3.1 Aesthetics

3.1.1 Existing Environment

Features surrounding the South Florida National Cemetery that contribute to the visual character and scenic quality of the area include single-family residences, farms, and plant nurseries to the west and south, a wooded area with two large radio antennas to the north, and U.S. Highway 441 to the east. Approximately less than a mile southwest of the South Florida National Cemetery is the Strazzulla Tract and the Arthur R. Marshall Loxahatchee National Wildlife Refuge, which includes the northernmost remnant of the historical Everglades wetland ecosystem.

The South Florida National Cemetery is visible along its eastern border to cars and pedestrians traveling on U.S. Highway 441. However, dense forest vegetation obstructs visibility from the three other sides.

There are no designated wild and scenic rivers or scenic roadways at or in the vicinity of the South Florida National Cemetery. The Loxahatchee River, named a wild, scenic, and recreational river (National Wild and Scenic Rivers System, 2017) is located approximately 25 miles northeast of the property.

The western border of the 20-acre parcel is visible to pedestrians and vehicles traveling along North Park Lane Road. Dense vegetation surrounds the north, east, and south sides of the parcel, obstructing views of, or from, the parcel. Within the parcel are the remnants of the former agricultural nursery business that occupied the parcel when it was purchased by VA in 2014. Remnants include a small office trailer and parking lot located in the west-central portion of the property, and a well-defined spine road in an east-west direction through the center of the parcel, with lateral paths throughout the former nursery. The parcel also includes two dilapidated structures (no roofs), one well shed, two storage trailers, two pump shelters, and one concrete-lined surface water reservoir formerly used for irrigation. The land is cleared of natural vegetation and the perimeter of the parcel is bounded to the east by a private canal, and to the north, south, and west by drainage ditches (VA, 2014).

3.1.2 Environmental Consequences

3.1.2.1 Proposed Action

Construction.

<u>Phase 2 Expansion</u>

The Phase 2 expansion would be constructed within an approximately 76-acre area in the central northern portion of the South Florida National Cemetery. This area is presently undeveloped and primarily dominated by dense stands of non-native, invasive melaleuca. The majority of the interior of the Phase 2 expansion area is not currently visible due to the presence of this dense vegetation. However, the southwestern portion of the Phase 2 expansion area is located in an open grass-covered area, reasonably visible to visitors and staff in the northwestern portion of the cemetery.

Heavy equipment would be used for land clearing, grading, and the initial stages of building the columbarium, burial sections, roadway, and flag assembly area. 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 northern-central portion of the cemetery, particularly near the existing northern columbarium and committal shelter.

Land clearing and grading activities would expose underlying soils and increase the potential for fugitive dust generation to the air and mud/dirt on the cemetery roadways, which could lead to nuisance concerns about the appearance of the South Florida National Cemetery.

To minimize these potential adverse construction-related impacts to aesthetics, the contractor would control fugitive dust emissions by implementing standard construction BMPs, including using water trucks to prevent fugitive dust emissions, and installing gravel-covered pads at the construction site exit to remove dirt from construction vehicles before they travel on cemetery or local roadways. These and other BMPs would be specified in the SESC Plan, as described under the Soils heading in Section 3.4.2.1.

Additionally, the construction contractor would install and maintain fabric-covered privacy fencing along the southern border of the Phase 2 expansion area (visible from the northwestern portion of the cemetery) and along the western border of the 20-acre parcel (visible from Park Lane Road). The existing vegetation obstructs visibility into these areas from all other sides. The combination of the construction fence and retention of other vegetated borders would block any views of the construction areas, ensuring that the aesthetic appearance of the Phase 1 cemetery grounds and the 20-acre parcel are not disturbed by the presence of heavy equipment or associated construction activities.

Therefore, considering these engineered viewshed obstructions, retention of existing vegetated borders, and incorporation of construction BMPs to reduce fugitive dust generation, construction would have a short-term, direct, minor, less-than-significant adverse impact on aesthetics.

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

20-Acre Parcel Improvements

Potential aesthetic impacts due to construction activities at the 20-acre parcel include the presence of heavy machinery needed to demolish the buildings. Demolition of the concrete structures on the 20-acre parcel could result in the generation of dust, which could lead to nuisance concerns. The installation of the fence around the parcel border would require small machinery to clear a narrow swath through the existing vegetation.

The measures to minimize aesthetic impacts associated with the Phase 2 expansion would also be implemented during construction activities at the 20-acre parcel.

Operation. Operation of the Phase 2 cemetery would provide long-term, direct, moderate beneficial aesthetic effects resulting from the expansion of the South Florida National Cemetery's park-like setting to an area currently dominated by dense stands of non-native, invasive melaleuca. The designated preservation areas within the Phase 2 expansion area would be maintained, and existing vegetation around other borders of the expansion area would be retained, preventing views of U.S. Highway 441 to the east. The conversion of the invasive vegetation area to professionally landscaped grounds would be visible to visitors and staff within only this portion of the cemetery.

The design of the Proposed Action would be compatible with the surrounding landscape, graded in concert with the surrounding topography, and aesthetically consistent with existing operational areas within the South Florida 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. flag assembly

area, roadway, interment areas). New night-time lighting would be limited to illuminating the flagpole with small ground-mounted spotlights pointed upward. This limited lighting is not anticipated to be visible from outside of the South Florida National Cemetery due to the presence of the vegetated border along the western border of the cemetery.

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

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

20-Acre Parcel Improvements

The fence around the perimeter of the 20-acre parcel would not likely be visible from outside of the parcel. Therefore, there would be no visual impact due to this element of the Proposed Action.

3.1.2.2 No Action

Under the No Action alternative, no changes to the current aesthetic or visual character would occur at the South Florida National Cemetery. At the 20-acre parcel, the dilapidated outbuildings would continue to deteriorate (there is no plan to maintain the buildings under the No Action alternative).

Although the No Action alternative would avoid the less-than-significant adverse impacts associated with construction of the Proposed Action, the long-term beneficial impacts to aesthetics associated with operation of the Proposed Action would not occur. Baseline conditions would remain, as described above.

3.2 Air Quality

3.2.1 Regional Climate

Weather and climate are important influences on air resources. The South Florida National Cemetery is located in Palm Beach County, approximately 11-miles west of the Atlantic Ocean and at an elevation of approximately 17- to 18-feet above mean sea level (amsl). According to the Koppen Climate Classification System, Palm Beach County is located in the moist continental climate – deciduous forest biome (Sustainability Council, 2013). Local climatological data station details provided from the West Palm Beach International Airport indicate that the average summer temperature is 82.4 degrees Fahrenheit (°F) with approximately 30.8 inches of rainfall, and 71.9°F in the winter with approximately 6.7 inches of rainfall. The annual average temperature is 76.7°F, with approximately 53.6 inches of rainfall. August is the wettest month with an average of 8.5 inches of rainfall, and November is the driest with an average of 0.74 inches of rainfall (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 (NO_2), ozone (O_3), lead (Pb), particulate matter (PM; particulate matter sized 10 microns or less (PM_{10}) and particulate matter sized 2.5 microns or less ($PM_{2.5}$), and sulfur dioxide (SO_2). 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 §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. Palm Beach County is currently classified as an attainment area for all criteria pollutants (USEPA, 2017a).

Greenhouse Gas Emissions. Greenhouse gases (GHG) 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 (CO_2), 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 (U.S.) (USEPA, 2009b). The purpose of the rule is to collect comprehensive and accurate data on CO_2 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 CO_2 equivalent GHG emissions per year; however, that excludes mobile source emissions.

3.2.3 Existing Emissions Sources

The South Florida National Cemetery operates two diesel-fuel powered standby emergency generators. Normal electrical power to the existing structures is supplied by the local utility service. There are no regulated stationary air pollution emission sources within a 1-mile radius of the South Florida National Cemetery (USEPA, 2017b).

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. No schools, hospitals, or religious institutions are located within one mile of the South Florida National Cemetery (USEPA, 2017b).

3.2.5 Environmental Consequences

3.2.5.1 Proposed Action

Construction. Construction of the Phase 2 expansion would require approximately 18 months of earthwork associated with land clearing; grading; construction of interment areas, connecting roadways, 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 and grading. The amount of particulate emissions can be estimated from the amount of ground surface exposed, the type and intensity of activity, soil type and conditions, wind speed, and dust control measures used.

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

Table 1. Estimate of Particulate Matter Emissions During Construction of the Proposed Action

Total Area	Exposed Area	Construction Duration	Emission Factor[1]	Control Efficiency	Total Suspended Particulate Emissions
76 acres	62.6 acres	18 months	1.2 tons/acre/month	80%	180.3 tons/year

Notes:
[1] *Emission factor for Heavy Construction Operations (USEPA, 1995)*

Non-road construction vehicles would emit criteria pollutants during construction of the expansion. Criteria pollution 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 396 weekdays. Emissions were estimated using "Off-Road – Model Mobile Source Emission Factors" from the California South Coast Air Quality Management District (SCAQMD, 2014) 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 (SO_x), Nitrous Oxides (NO_x), Volatile Organic Compounds (VOC), 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

Criteria Pollutant[1]	SO_x	NO_x	VOCs[3]	CO	Lead
Emissions (tons/year)[2]	0.02	12.2	1.64	7.82	0
de minimis level (tons/year)	100	100	100	100	25

Notes:

[1] *PM emissions from non-road construction vehicles are included in the general construction emissions factor applied in the estimates in Table 3, and non-road emissions of PM are therefore not included in this table.*

[2] *Calculated using "Off-road Mobile Source Emission Factors (Scenario Year 2018) (SCAQMD, 2014).*

[3] *VOCs are equivalent to Reactive Organic Gases (ROG) for calculating non-road construction equipment emissions.*

Table 3. Estimated Total Operational Hours for Construction Equipment

Equipment Type	Number	Hours/Day	Total Days	Total Hours
Grader	2	8	396	6,336
Tractors/Loaders/Backhoes	6	8	396	19,008
Rubber Tired Dozers	2	8	396	6,336

Table 4. SCAB[3] Fleet Average Emission Factors (Diesel)

Equipment[1] and Chemical	ROG (lbs/hr)	CO (lbs/hr)	NOx (lbs/hr)	SOx (lbs/hr)	PM[2] (lbs/hr)	CO_2 (lbs/hr)	CH_4 (lbs/hr)
Graders	0.1197	0.5883	0.8866	0.0015	0.0441	133.0000	0.0108
Tractors/Loaders/Backhoes	0.0610	0.3689	0.4070	0.0008	0.0258	66.7979	0.0055
Rubber Tired Dozers	0.2591	0.9834	2.0891	0.0025	0.0858	239.0905	0.0234
Total Tons	1.7799	8.45854	13.295	0.0199	00.6569	1813.63	0.1606

Notes:

[1] *Composite emission factors used; Emission factor year 2018.*

[2] *Combined $PM_{2.5}$ and PM_{10}*

[3] *South Coast Air Basin*

http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/off-road-mobile-source-emission-factors

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

Equipment	Total Hours	Chemical (total pounds)					
		ROG	CO	NOx	SOx	PM	CO_2
Graders	6,336	758.42	3727.47	5617.50	9.50	279.42	842688.00
Tractors/Loaders/Backhoes	19,008	1159.75	7012.49	7735.86	14.73	490.61	1269694.74
Rubber Tired Dozers	6,336	1641.70	6230.74	13236.70	15.53	543.84	1514877.23
Total Pounds	--	3559.86	16970.70	26590.06	39.77	1313.87	3627259.97
Total Tons	--	1.7799	8.4854	13.2950	0.0199	0.6569	1813.6300

On-road construction vehicles that would be active during the construction phase include material delivery trucks and tractor trailers used for transporting off-road heavy equipment. Material deliveries would be consolidated to the greatest extent practical, reducing the number of trips to and from the site. Heavy equipment transported to the site would remain staged there until it is no longer needed, also reducing on-road vehicle trips. The Proposed Action would require raising elevations of the Phase 2 expansion in-ground burial areas and roadways to facilitate drainage to the new stormwater retention pond. To minimize the need to import fill from an off-site borrow source and reduce the associated emissions from on-road delivery vehicles, suitable soils excavated from the stormwater retention pond would be used as the fill material.

While the estimated number of on-road construction vehicles anticipated to travel to and from the South Florida National Cemetery during the construction phase has not been calculated, the operating hours and emissions generated would be less than those associated with the off-road construction equipment. Therefore, on-road construction equipment emissions would be negligible and would not increase the overall construction emissions above the General Conformity *de minimis* thresholds.

Dust generated by construction activities could have an adverse impact on air quality if not minimized. To prevent dust generation, the following measures would be incorporated into the Proposed Action. Many of these measures are identified as BMPs specified in the SESC Plan described under the Soils heading in Section 3.4.2.1.

- Implement dust suppression methods to include application of water (as discussed in Section 3.1.2.1) and construction scheduling (avoid earthwork during extremely windy and dry periods or when there is an emergency weather advisory).
- Stabilize exposed soil with native, non-invasive vegetation or mulching to minimize erosion and potential dust generation.
- Construction vehicles traveling on paved roads within the South Florida National Cemetery and local roadways would follow posted speed limits to minimize dust generated by vehicles and equipment during transit.
- On unpaved surfaces at the construction site, vehicle speeds would be maintained at or below 5 miles per hour to prevent dust generation of any exposed soil. Additionally, should any vehicles transport soil to or from the construction site, the soil would be covered with haul tarps.
- Construction activities would be visually monitored on a daily basis, particularly during extended periods of dry weather when there is increased potential for dust generation. During these periods, dust control measures would be implemented more frequently, if warranted.

To further minimize construction emissions, engine idling would be limited to less than five minutes, and USEPA-recommended diesel controls would be implemented, including the use of clean diesel through add-on control technologies such as diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.

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

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

Operation. Operational sources of air emissions would be generated from visitors driving vehicles through the Phase 2 cemetery expansion, and from maintenance vehicles used for mowing and burials (e.g. backhoes, utility vehicles). The Proposed Action would result in an increase in the number of funeral services and visitations, both requiring vehicles, to the South Florida National Cemetery over the next decade. This increase in visitor and staff vehicle activity would result in a negligible increase to overall emissions in the region. However, by extending the longevity of the South Florida National Cemetery, funeral services and visitations could continue to occur locally, avoiding the need for vehicles to travel longer distances to reach another National Cemetery outside of the south Florida region. Reducing emissions from visitors' vehicles would have a beneficial but negligible impact on air quality in the region.

Therefore, overall operation of the Proposed Action would result in long-term, direct, negligible adverse 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 associated with visitors and families would begin to increase over a longer term because these groups would be required to travel greater distances to reach a National Cemetery with burial capacity that is located outside of the south Florida region.

3.3 Cultural Resources

3.3.1 Existing Environment

The Area of Potential Effect (APE) for the Proposed Action includes the approximately 76-acre Phase 2 expansion area, and the approximately 20-acre parcel adjacent to the southwest border of the South Florida National Cemetery. The APE 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 South Florida 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.

As identified in the 2001 Final EA for site selection, comments from Florida Division of Historical Resources (FDHR) stated that the construction of a new National Cemetery would have no effect on historic properties at the parcel that is now the South Florida National Cemetery (which encompasses the proposed Phase 2 expansion area). Section 3.4.2 of the 2001 Final EA (VA, 2001) stated that no historic structures were observed within or adjacent to the APE and none were identified in a search of the NRHP database. The document recommended that if cultural resources were encountered during the construction phase, State Historic Preservation Office (SHPO) coordination should be reinitiated. VA's consultant, URS Corporation, completed archaeological field visits on June 12-13, 2001, and conducted a Phase I archaeological survey from October 15-31, 2001 (VA, 2001). The results of the survey indicated that no significant cultural resources were found at the South Florida National Cemetery site; FDHR concurred with this finding.

As part of the 2014 Final EA for the 20-acre parcel, VA's consultant, Archaeological Consultants, Inc. (ACI), conducted an Initial Cultural Resources Impact report to review the environmental variables and potential for encountering historic and prehistoric cultural resources within the APE on that parcel. Based on the cultural resources review, ACI concluded the occurrence of NRHP eligible resources is highly unlikely; FDHR concurred with this finding.

Additionally, VA solicited input from three federally recognized Native American Tribes in the region that may attach religious or cultural significance to the 20-acre parcel, as required by NEPA, NHPA, the *Native American Graves Protection and Repatriation Act* (NAGPRA), and Executive Order (EO) 13175, *Consultation and Coordination with Indian Tribal Governments*. VA sent a letter, via certified mail, to the Seminole Tribe of Florida, the Seminole Nation of Oklahoma, and the Miccosukee Tribe of Indians of Florida in September 2013. No responses were received prior to finalization of the 20-acre parcel EA.

As part of the Section 106 consultation process for the Proposed Action analyzed in this SEA, VA mailed a letter on May 2, 2018, to the Florida SHPO to request concurrence that no adverse effects would be anticipated as a result of the Proposed Action. On May 18, 2018, the Florida SHPO responded in writing and concurred with VA's determination that the Proposed Action should have no adverse effects on historic properties. However, the SHPO stated that since the project includes ground disturbance activities, unexpected discoveries could arise during construction activities. The SHPO concluded that if prehistoric or historic artifacts 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 must cease all activities involving subsurface disturbance in the vicinity of the discovery. VA would then contact the Florida Department of State, Division of Historical Resources, Compliance Review Section, and project activities would not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work would stop immediately, and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*. VA has incorporated these management measures into the Proposed Action. Copies of the Section 106 correspondence are included in Appendix A.

Additionally, on May 2, 2018, VA sent letters soliciting input about the Proposed Action to the aforementioned three federally recognized Native American Tribes. VA also sent a letter to the Muscogee (Creek) Nation on June 3, 2019 to solicit their input about the Proposed Action. The Seminole Tribe of Florida responded (copies of the correspondence are provided in Appendix A). On June 5, 2018, the Seminole Tribe of Florida confirmed that the South Florida National Cemetery is within their Area of Interest and requested a copy of the prior Cultural Resource Assessment surveys conducted as part of previous development phases. In response, VA mailed the requested information to the Seminole Tribe of Florida on August 14, 2018. On September 26, 2018, the Seminole Tribe of Florida responded with a request that VA conduct a Cultural Resources Assessment Survey that meets the professional standards regarding low probability archaeological surveys set forth in the Florida Division of Historical Resources Module 3 Guidelines for Use by Historic Preservation Professionals for the 20-acre parcel. However, after receiving additional information from VA regarding the activities proposed for the 20-acre parcel, the Seminole Tribe of Florida on December 20, 2018 informed VA they no longer required a Cultural Resources Assessment Survey on the 20-acre parcel and had no further objections to the Proposed Action (a copy of the correspondence is provided in Appendix A).

The Seminole Nation of Oklahoma provided comments on the Draft SEA on April 23, 2019. The Seminole Nation of Oklahoma requested that a remote parcel of land be made available for future reburials of human remains of Seminoles under any NAGPRA action that occurs within the local area; cease activity and provide notification should cultural or archaeological resource material or human remains be encountered in the expansion area or other developed areas within the South Florida National Cemetery. VA responded on April 25, 2019, indicating that under the South Florida National Cemetery's Master Plan, VA has committed to avoid development in several remote areas within the current property boundary. Should it be necessary, a suitable location within a remote area could be made available for future reburials of human remains of Seminoles under any NAGPRA action that occurs within the property. Additionally, VA

confirmed that the Seminole Nation of Oklahoma would be notified in the event of an inadvertent discovery of cultural or archaeological resource materials or remains at the South Florida National Cemetery. Copies of this correspondence are provided in Appendix A. Responses from other Native American Tribes were not received.

3.3.2 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.

3.3.2.1 Proposed Action

Construction. Based on the prior cultural resource investigations, no archeological sites or historical properties are known to exist at the South Florida National Cemetery main property or the 20-acre parcel. However, VA would take appropriate actions to protect previously unknown archaeological resources that could be discovered during construction activities associated with the Proposed Action by implementing an "Inadvertent Discovery" plan, which incorporates the management measures as described in the SHPO's no affect concurrence letter of May 18, 2018. Under this plan, if prehistoric or historic artifacts that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, VA would cease all activities involving subsurface disturbance in the vicinity of the discovery. The Florida Department of State, Division of Historical Resources, Compliance Review Section, as well as the Seminole Tribe of Florida and the Seminole Nation of Oklahoma, would be contacted, and project activities would not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work would stop immediately, and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

These management measures would ensure that the Proposed Action would have no adverse effect on any cultural or historic resources.

Operation. Excavation for individual burial sites poses the same possibility of inadvertent discovery of human remains or cultural resources described above for construction impacts. In the unlikely event that human remains or cultural resources are encountered during operation, the aforementioned "Inadvertent Discovery" plan would be immediately implemented. The plan would require that all ground-disturbing activities cease, and the Construction Supervisor would immediately contact VA for guidance on the next steps to be taken. Because the likelihood of discovery is considered low, no potential adverse impacts are anticipated. These management practices to avoid potential construction and operational impacts are summarized in Section 5.0 in this SEA.

3.3.2.2 No Action

No changes to the Proposed Action areas would occur from implementation of the No Action Alternative; therefore, no impacts to cultural resources would occur. Baseline conditions would remain, as described above.

3.4 Geology, Topography, and Soils

3.4.1 Existing Environment

3.4.1.1 Geology

The South Florida National Cemetery is located in southeastern Florida within Palm Beach County, approximately 10 miles inland from the Atlantic Ocean (see Figure 1). The county covers 1,093,480 acres

(1,708 square miles) and includes approximately 25 percent of Lake Okeechobee, the second largest freshwater lake in the United States. Palm Beach County is mostly low, nearly level land and is divided into two general areas: sand in the eastern part and muck in the Everglades to the west. The Everglades area is the largest single body of organic soils in the world. Elevation ranges from 10- to 20-feet amsl in the eastern areas of the county, and from 10- to 15-feet amsl in the Everglades (United States Department of Agriculture [USDA], Natural Resources Conservation Service [NRCS], 1978).

There are three major geologic formations in this area. The oldest formation, the Caloosahatchee Marl, is of Pliocene age and underlies all of Palm Beach County. It consists primarily of sand and varying amounts of shells, many of which are preserved unbroken. Although this formation is not exposed, in some places it lies close enough to the surface that it has been cut into by deeper canals (USDA NRCS, 1978).

The Anastasia Formation of Pleistocene age underlies all of the eastern third of Palm Beach County and presumably rests on the Caloosahatchee Formation. The South Florida National Cemetery is located within this portion of the county and is underlain by the Anastasia Formation. The Anastasia Formation consists primarily of shell and sand cemented into compact limestone known as coquina. The Anastasia Formation is exposed near the water line at several places along the coast (USDA NRCS, 1978). Lithic bedrock (representing a restrictive layer) is typically located at 33-40 inches below ground surface (USDA NRCS, 2017).

Based on the FDEP geological survey, the portion of Palm Beach County where the South Florida National Cemetery is located is classified as an Area II for sinkhole types (FDEP, 2018). The Area II classification is defined as "areas with cover that is 30-200 feet thick, consisting mainly of incohesive and permeable sand. Sinkholes are few, shallow, of small diameter, and develop gradually. Cover-subsidence sinkholes dominate" (FDEP, 2018). To date, none of the subsidence incidents have occurred within a one-mile radius of the South Florida National Cemetery.

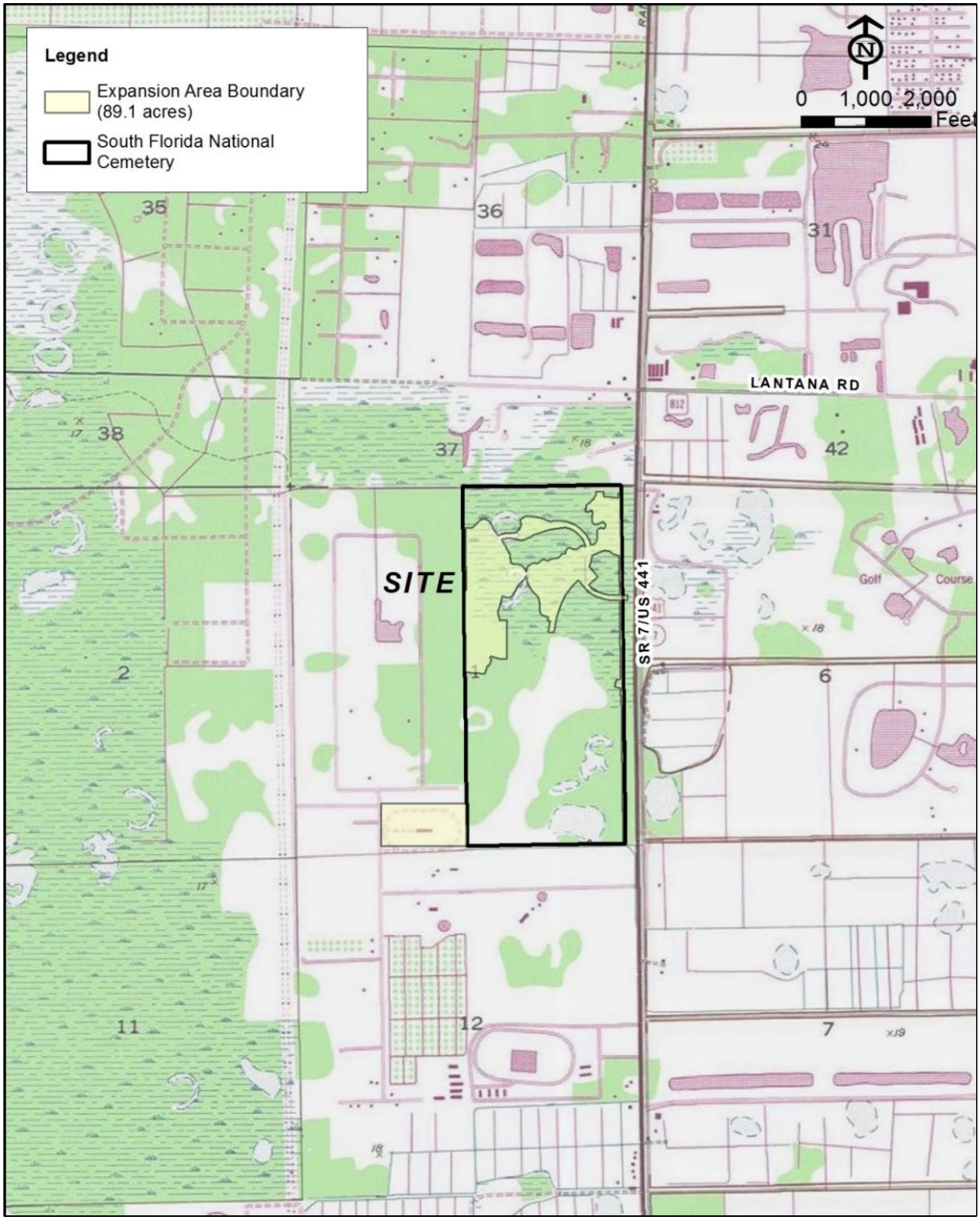
In December 2017, a limited geotechnical investigation including 15 subsurface borings was conducted within the Phase 2 expansion area. Subsurface materials encountered at the surface and underlying the topsoil predominantly consisted of fine sand, sometimes with silt or clay and sometimes with shell fragments, at depths ranging from 2- to 8-feet below ground surface, clayey sand at depths ranging from 4- to 7-feet, sandy shellrock at depths ranging from 8- to 15-feet, and sand with silt at approximately 15-feet below ground surface. A copy of the geotechnical report is provided in Appendix B.

3.4.1.2 Topography

Based on a topographic survey of the proposed expansion area conducted from December 2017 to February 2018 on behalf of VA by Lidberg Land Surveying, Inc., a Florida-licensed surveyor, and a review of the U.S. Geologic Survey (USGS) Greenacres City 7.5-Minute Topographic Quadrangle (Map 26080-E2-TF-024, dated 2015), the surficial topography at the South Florida National Cemetery is generally flat, with elevations generally ranging from approximately 17 to 24 feet amsl. As the USGS topographic map shows in Figure 4, there is very little overall topographic relief throughout the South Florida National Cemetery. Due to this generally flat topography, the majority of stormwater becomes ponded within the proposed Phase 2 expansion area during precipitation events. Stormwater elsewhere at the cemetery drains into stormwater retention basins constructed as part of the Phase 1 cemetery development. Other stormwater may run off into man-made drainage canals present along the northern, western, and southern borders of the South Florida National Cemetery.

The surficial topography of the 20-acre parcel is also generally flat, with a very slight slope downward to the east. The elevation is approximately 20 feet amsl. Between 1999 and 2002, the parcel was graded to slope from a slight high point located in the central portion of the parcel to the eastern and western site boundaries (VA, 2014). Man-made drainage canals are present on all sides of the 20-acre parcel.

Figure 4. USGS Topographic Map



3.4.1.3 Soils

Soil information was obtained from the United States Department of Agriculture – Natural Resources Conservation Service (USDA NRCS, 2017). A list of soils present within the Phase 2 expansion is presented in Table 6. Soils mapped within this area by the NRCS and confirmed during profiling by others are depicted on Figure 5. Based on the *Hydric Soils of Florida Handbook* (Florida Association of Environmental Soil Scientists, 2000), three out of the five soils mapped within the Phase 2 expansion area are classified as hydric soils.

Table 6. USDA-NRCS Soils within the Proposed Action Area

Soil Map Unit	Soil Map Unit Name	Drainage Class	Hydric (Y/N)	± 76-acre Site	± 20-acre Site	Acres within Project Study Area
10	Boca fine sand	Poorly drained	Y	56.6	18.4	75.0
25	Oldsmar Sand, 0-2% Slopes	Poorly drained	N	0.4	0.0	0.4
36	Riviera fine sand, 0-2% slopes	Poorly drained	Y	0.0	1.8	1.8
37	Riviera fine sand, 0-1% slopes	Very poorly drained	Y	11.5	0.0	11.5
49	Wabasso Fine Sand	Poorly drained	N	0.4	0.0	0.4
TOTAL				**68.9**	**20.2**	**89.1**

[1]*Reported by USDA-NRCS Soil Survey of Palm Beach County (2017).*

Boca Fine Sand. This is the primary soil within the Phase 2 expansion area, accounting for approximately 82% of the area in the ± 76-acre expansion and approximately 91% of the area in the ± 20-acre parcel. This soil is described as nearly level, poorly drained soil that has a loamy subsoil underlain by fractured limestone at a depth of 24 to 40 inches. This soil exists on broad, low flats and in poorly defined drainage ways between the Everglades and the coastal ridge. Under natural conditions, the water table is within 10 inches of the surface for 2 to 4 months and is in the limestone substrate during the driest periods.

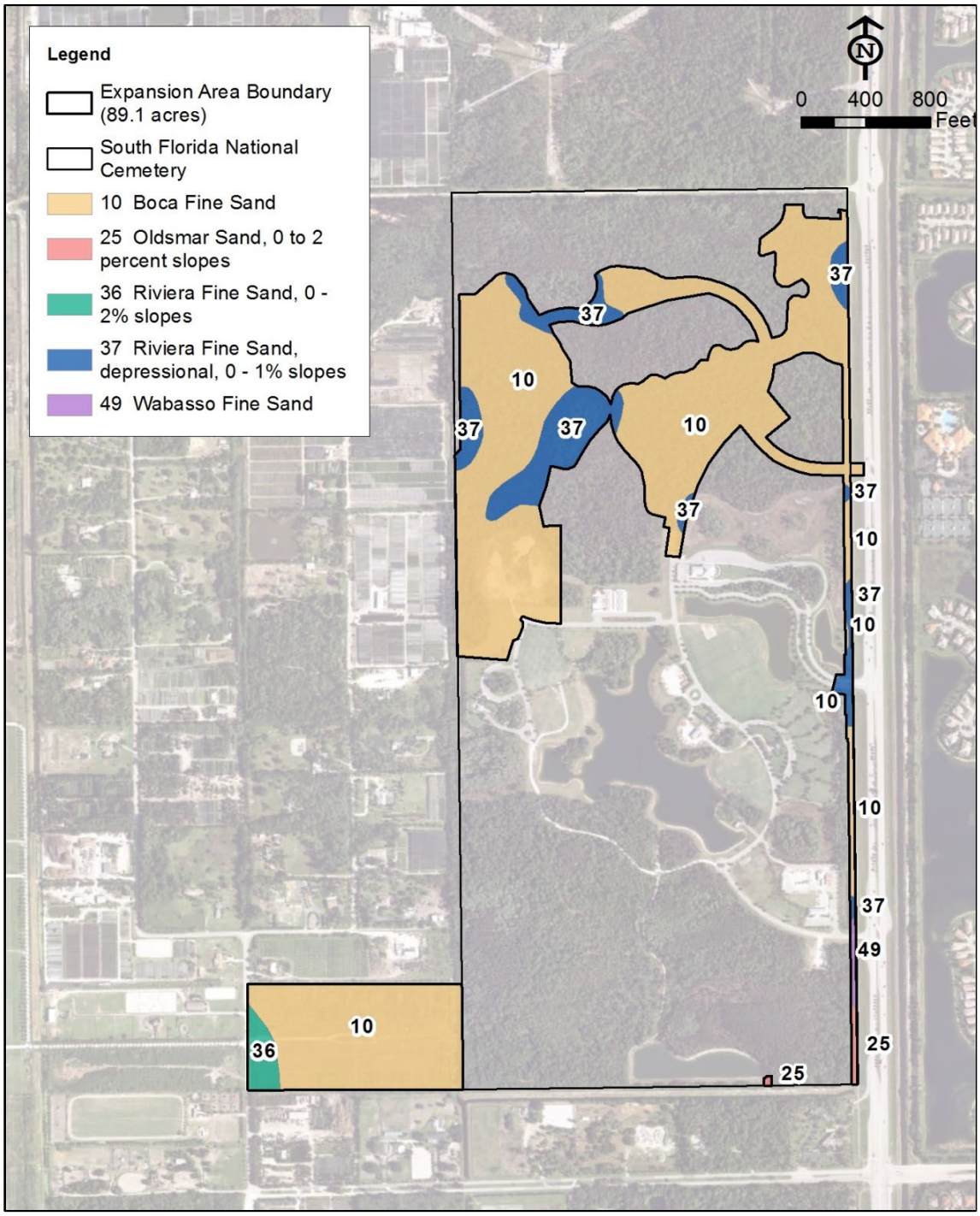
Riviera Sand. This is the secondary soil within the Phase 2 expansion area. Riviera fine sand, 0-1% slopes, accounts for approximately 17% of the area in the ± 76-acre expansion. Riviera fine sand, 0-2% slopes, accounts for approximately 9% of the area in the ± 20-acre parcel. This soil is located primarily at the western end of the Phase 2 expansion area and is described as a near level, poorly drained soil that has a thick sandy subsurface layer that tongues into a loamy subsoil at a depth of 20 to 40 inches. This soil is in broad, low areas. Under natural conditions, the water table is within 10 inches of the surface for 2 to 4 months in most years, and within 10 to 30 inches for most of the remaining year, except during extreme dry periods.

Prime and Unique Farmland

Farmland in the United States is protected by the *Farmland Protection Policy Act* (FPPA) (7 USC 4201) to maintain the agricultural production capacity. The USDA Natural Resources Conservation Service (NRCS) implements the policies associated with FPPA. The NRCS uses the farmland classification to identify soils according to their suitability for producing food, feed, fiber, forage, and oilseed crops. Prime farmland is defined as "land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion." Unique farmlands are defined as "land other than prime farmland that is used for the production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high-quality and/or high yields of a specific crops when treated and managed according to acceptable farming methods (FPPA)."

The NRCS Web Soil Survey indicated that Boca fine sand and Riviera fine sand may be considered farmland of local importance but are not classified as prime or unique farmland (NRCS, 2017). Therefore, these soils are not protected under the FPPA, and further coordination with the NRCS to determine the potential effects of the Proposed Action on prime or unique farmland soils is not required.

Figure 5. NRCS Soil Map



3.4.2 Environmental Consequences

3.4.2.1 Proposed Action

Geology

Construction and operation of the Phase 2 expansion and improvements at the 20-acre parcel are not anticipated to require or result in any impacts to the existing underlying geology. Site preparation for columbarium, burial sections, roadways, and stormwater management features would not require excavation to bedrock. Operational activities would not require exposure of, or contact with, bedrock.

Therefore, construction and operation of the Proposed Action would have no impact on geology.

Topography

Construction and operation of the Phase 2 expansion would permanently alter the current topography within the expansion area; however, no alternations would occur to the USACE and SFWMD permit-defined preservation areas where development is prohibited. Where development is allowed, the topography would be substantially altered by grading for the stormwater retention pond, which would require cutting to lower the elevation of the pond area. The excavated soils would be used to raise the ground elevation for the new burial areas and roadway. These modifications would be required to ensure that stormwater run-off drains from burial areas and roads into the stormwater retention pond. These topographical changes would not create slopes with more than a 5% grade. The final topography of the Phase 2 cemetery would be similar to, and visually consistent with, the Phase 1 cemetery development.

Therefore, construction and operation of the Phase 2 expansion would have a long-term, direct, negligible, less-than-significant adverse impact on topography.

20-Acre Parcel Improvements

Construction and operational activities at the 20-acre parcel would not modify the existing topography. Therefore, this element of the Proposed Action would have no impact on topography.

Soils

Construction. Construction of the Phase 2 expansion would require substantial land clearing and grading in permitted development areas within the 76-acre expansion area. (It is noted that no development would occur within the preservation areas specified in the USACE and SFWMD permits.) The development activities would remove vegetation, disturb and expose the soil surface, and compact the soil. The soil could then be susceptible to erosion by wind and surface water runoff. Exposure of the soils during construction has the potential to result in increased sedimentation into the on-site stormwater management systems and into the nearby man-made drainage canals.

These potential adverse effects would be prevented and/or minimized to less-than-significant levels through utilization of appropriate erosion and sedimentation BMPs and adherence to the terms of the FDEP NPDES Construction General Permit, which incorporates the SWPPP, and the SFWMD ERP (Chapter 62-330, Florida Administrative Code [FAC]).

As part of the SWPPP, an SESC Plan would be prepared by the A/E firm and implemented by the construction contractor. The SESC plan would specify the BMPs to prevent and reduce soil erosion and sedimentation during construction, including the use of dust palliatives, 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 generation from disturbed and/or exposed soil at the construction area, or from construction vehicles leaving and entering the construction site.

Additionally, excess soils generated during excavation for the on-site pond would be used as fill material to increase local grades within other portion of the proposed expansion area to the maximum extent practicable.

Therefore, construction of the Phase 2 expansion area would have a short-term, direct, minor, less-than-significant adverse impact on soil quality.

These management practices to avoid potential construction-related impacts are summarized in Section 5.0 in this SEA.

Operation. During operation of the Phase 2 cemetery, soils previously exposed during construction would be revegetated, thereby preventing erosion. Additionally, the topographic design of the Phase 2 expansion would allow for stormwater run-off to drain at less-than-erosive flow rates into the constructed stormwater retention pond.

Soils excavated for in-ground burials would be temporarily stockpiled and returned to the burial site from which it was obtained, then sodded to prevent erosion. Any excess soil would be immediately removed from the interment area and stockpiled in a designated maintenance area to prevent further erosion.

Therefore, operation of the Phase 2 cemetery would have no adverse impact on soil quality.

20-Acre Parcel Improvements

Demolition of the legacy buildings may expose soil during excavation of subsurface foundations. To prevent erosion, these soils would be sodded or seeded with native, non-invasive vegetation immediately following demolition. Additionally, installation of the border fence footings may generate small amounts of excess soil. This excess soil would be spread throughout the area of the former buildings' footprints that would be revegetated, as described above.

The operational activities on the 20-acre parcel would involve mowing and inspecting the fence line. These activities would not expose soils or lead to soil erosion.

Therefore, construction and operation of this element of the Proposed Action would have a short-term, direct, negligible adverse impact on soil quality.

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

3.5.1 Existing Environment

3.5.1.1 Applicable Permit History

Following completion of the 2001 Final EA (VA, 2001), VA proceeded development of the South Florida National Cemetery as designed in the 2005 Master Plan and conceptually authorized by the following permits:

- SFWMD ERP number 50-06978-P issued in July 2005. The SFWMD ERP has remained valid due to subsequent permit modifications, with the most recent modification issued in July 2014.
- USACE IP number SAJ-2004-637 (IP-AAZ) issued in September 2005. Although the USACE IP expired on July 25, 2015, before a time extension was requested, VA submitted an application in April 2017 to USACE to re-authorize the IP SAJ-2004-637 (IP-AAZ). The application provided the previous permit information, a project impact summary and compensatory mitigation completed to date, and confirmed VA's commitment to the mitigation and avoidance measures, specified in the original permit, to future development phases, including the proposed Phase 2 expansion. USACE is currently reviewing the application and has not yet reauthorized the IP.

- SFWMD Water Use Permit number 50-06661-W (application number 041001-4 issued July 13, 2005. The Water Use Permit was issued concurrently with the ERP and permits withdrawal of surface water from the on-site ponds for use as irrigation water. A modification to the permit may be required to additional withdrawals from the proposed new pond, and if dewatering is necessary during construction such that the SFWMD *General Permit by Rule for Short-Term Dewatering* criteria cannot be met per Chapter 40E-2 (2 a-b).

The initial development began with the "fast track" Phase 1A and was completed in 2007, Phase 1B was completed in 2010, and one additional minor phase (a phase number was not associated with the permit modification) was completed in March 2017 under SFWMD Application #130906-2.

South Florida National Cemetery Permitted Wetland Impacts

A total of 131.4 acres of wetlands/Waters of the United States were present on-site prior to initiating site development in 2007. This included 25.06 acres of high-quality freshwater wetlands, 104.5 acres of low-quality melaleuca-dominated wetlands, and 1.88 acres of ditches. The USACE and SFWMD permits authorized the placement of approximately 720,137 cubic yards of fill over 72.74 acres of wetlands, which included 1.88 acres of ditches, 1.06 acres of higher quality wetlands, and 69.8 acres of low-quality melaleuca wetlands. The "fast track" phase (Phase 1A) and Phase 1B portion of the South Florida National Cemetery included 180.34 acres of the total project area. Wetland impacts totaling 16.27 acres were authorized as part of the Phase 1A and Phase 1B construction.

The Phase 2 proposed action would require impacts to 25.6 acres of the 72.74 acres previously authorized for the overall project. This includes 18.9 acres of low-quality melaleuca-dominated wetland impacts and 6.7 acres for the proposed lake. Wetlands are depicted in (Figure 6).

South Florida National Cemetery Mitigation Program

Pursuant to the USACE and SFWMD permits, compensatory mitigation to offset the 72.74 acres of wetland impacts included a combination of onsite wetland preservation and enhancement and the purchase of mitigation credits from the Loxahatchee Mitigation Bank. All wetland preservation and enhancement areas were focused around the high-quality cypress wetland systems with high quality habitat for threatened and endangered species. A total of 24 acres of high-quality wetlands were avoided and preserved on site. VA also provided 34.7 acres of onsite mitigation through the combination of wetland enhancement and creation. The wetland creation areas were scraped down to match the grade of the adjacent wetland and planted with desirable wetland vegetation. The construction footprint was designed to keep the majority of unavoidable wetland impacts within the low-quality wetland areas. A summary of on-site and off-site mitigation is provided in Table 7. A conceptual mitigation plan is depicted in Figure 7.

Table 7. Summary of USACE/SFWMD Approved Mitigation Program

Proposed Mitigation/Ratio	Acres	Ratio	USACE and SFWMD Credit (acres)
On-site stormwater pond creation	41.39	N/A	0
Enhancement of onsite stormwater management ponds (removal of exotic plant species)	N/A	N/A	0
Preservation of gopher tortoise habitat	4.55	N/A	0
On-site wetland creation (high quality wetlands)	4.24	4:1	1.06
On-site wetland creation (low quality, melaleuca-dominated wetlands)	30.46	1:1	30.46
On-site wetland preservation	24.0	N/A	0
Off-site wetland creation - Purchase of credits from the Loxahatchee Mitigation Bank	26.0	N/A	41.22
Total			**72.74**

3.5.1.2 Surface Waters

This section covers the effects on surface waters; a discussion of wetlands and floodplains is presented in Section 3.9. A total of five man-made ponds were excavated at the South Florida National Cemetery for storm water management. The three largest were constructed in 2007 with the initial phase of development, a small storm water pond was excavated in 2010, and the northern most pond was created in 2015. These storm water retention ponds were planted with native wetland plant and are maintained to ensure continued population of desirable plant species.

As described in Section 3.4.1.2, canals border the northern, southern, and western boundaries of the South Florida National Cemetery. The canal along the western boundary is located adjacent to the proposed Phase 2 expansion area. Additionally, hydrologic alterations (excavation of ditches within the site) associated with previous land use to sustain cattle have resulted in a network of drainage ditches through the proposed Phase 2 expansion area. The 2001 Final EA indicated that water was observed within these areas at a depth of approximately 6-12 inches, with watermarks on trees observed to a height of approximately 18-24 inches above the ground surface (VA, 2001). Upland areas within the Phase 2 expansion area are limited to its southern border and consist of upland pine forest and partially cleared land resulting from construction activities associated with South Florida National Cemetery Phase 1 development.

Man-made drainage canals are present on all four sides of the 20-acre parcel. Hydrology and surface waters are depicted in Figure 8.

3.5.1.3 Groundwater

As part of this SEA, a geotechnical investigation was performed in December 2017 to measure the current depth to groundwater underlying 15 selected locations within the Phase 2 expansion area (Figure 9) (a copy of the report is provided in Appendix B). At each location, a borehole was mechanically drilled to 15 feet below grade. Groundwater depths recorded during drilling ranged between 2- and 3-feet below the existing ground surface. Stabilized groundwater readings were collected boreholes B-1, B-4, B-11 and B-13 on January 5, 2018, and ranged between 0.8- and 1.9-feet below ground surface. Additionally, some areas of the proposed expansion area were ponded above the ground surface during the geotechnical investigation.

The subsurface borings were completed approximately one to two months after the end of the “wet season” when rainfall and recharge of the surficial aquifer is relatively high. Therefore, the groundwater levels measured at this time would be slightly below the seasonal high levels.

During the 30-day review period for the Draft SEA, USEPA provided comments on April 24, 2019, indicating that the South Florida National Cemetery is within the Biscayne Sole Source Aquifer and recharge source zone. Based on communication with VA on April 25, 2019, USEPA confirmed that the Proposed Action was not subject to review under the Soule Source Aquifer Impact Determination program, as it was being carried out by VA (a federal agency) on federally-owned lands. A copy of the correspondence is provided in Appendix A.

Figure 6. Wetlands Map

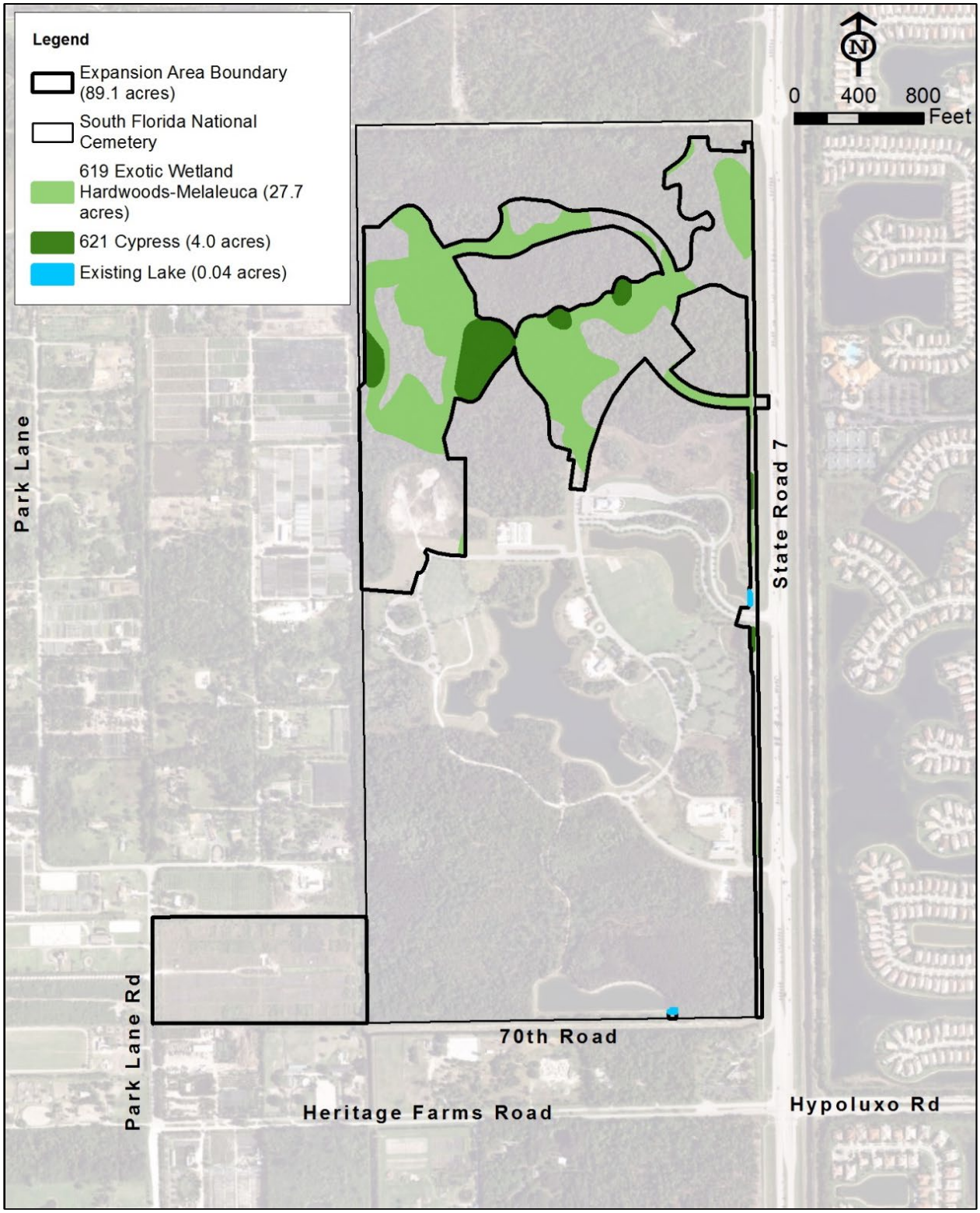
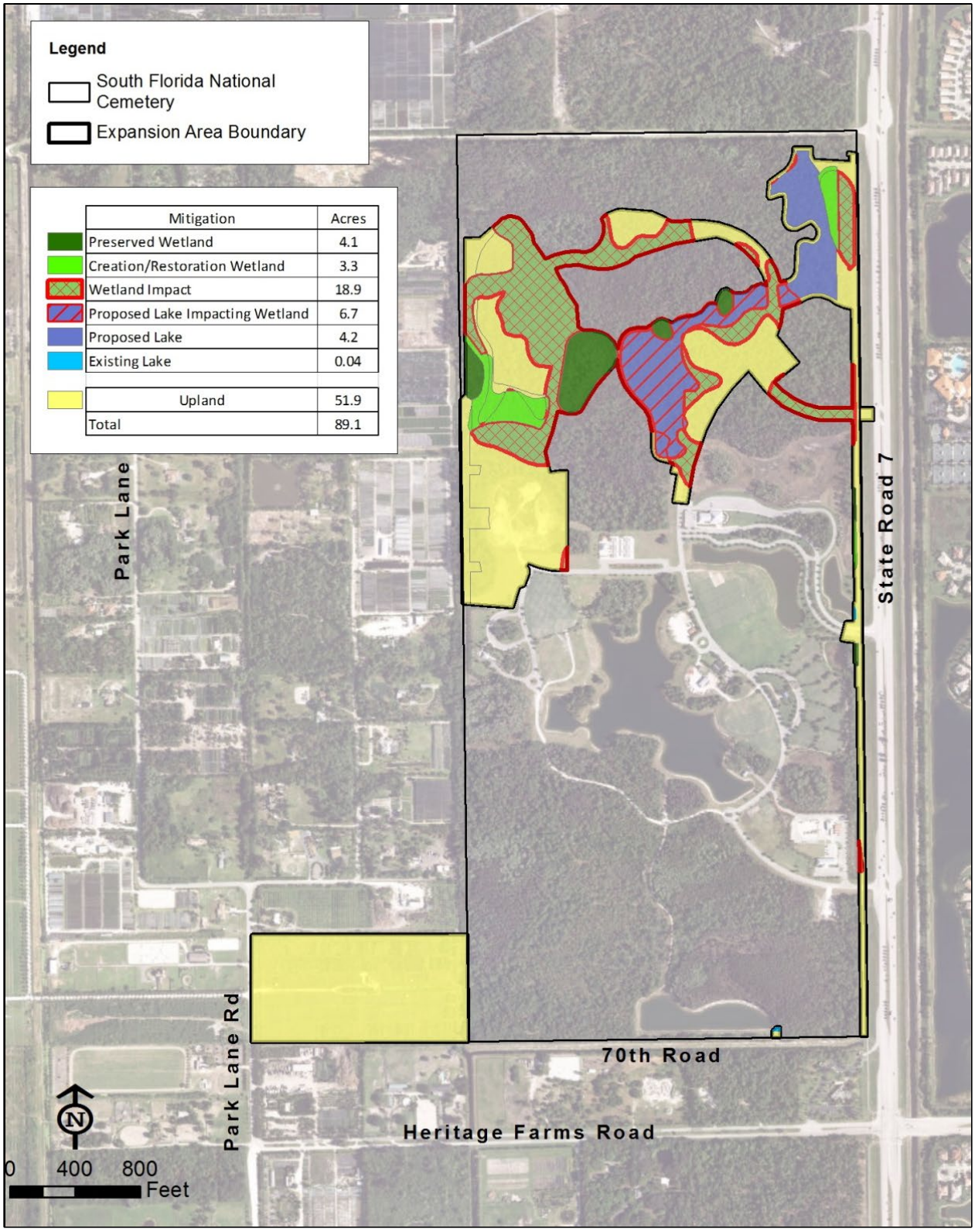


Figure 7. Conceptual Mitigation Plan



Mitigation	Acres
Preserved Wetland	4.1
Creation/Restoration Wetland	3.3
Wetland Impact	18.9
Proposed Lake Impacting Wetland	6.7
Proposed Lake	4.2
Existing Lake	0.04
Upland	51.9
Total	89.1

Figure 8. Hydrology and Surface Water Map

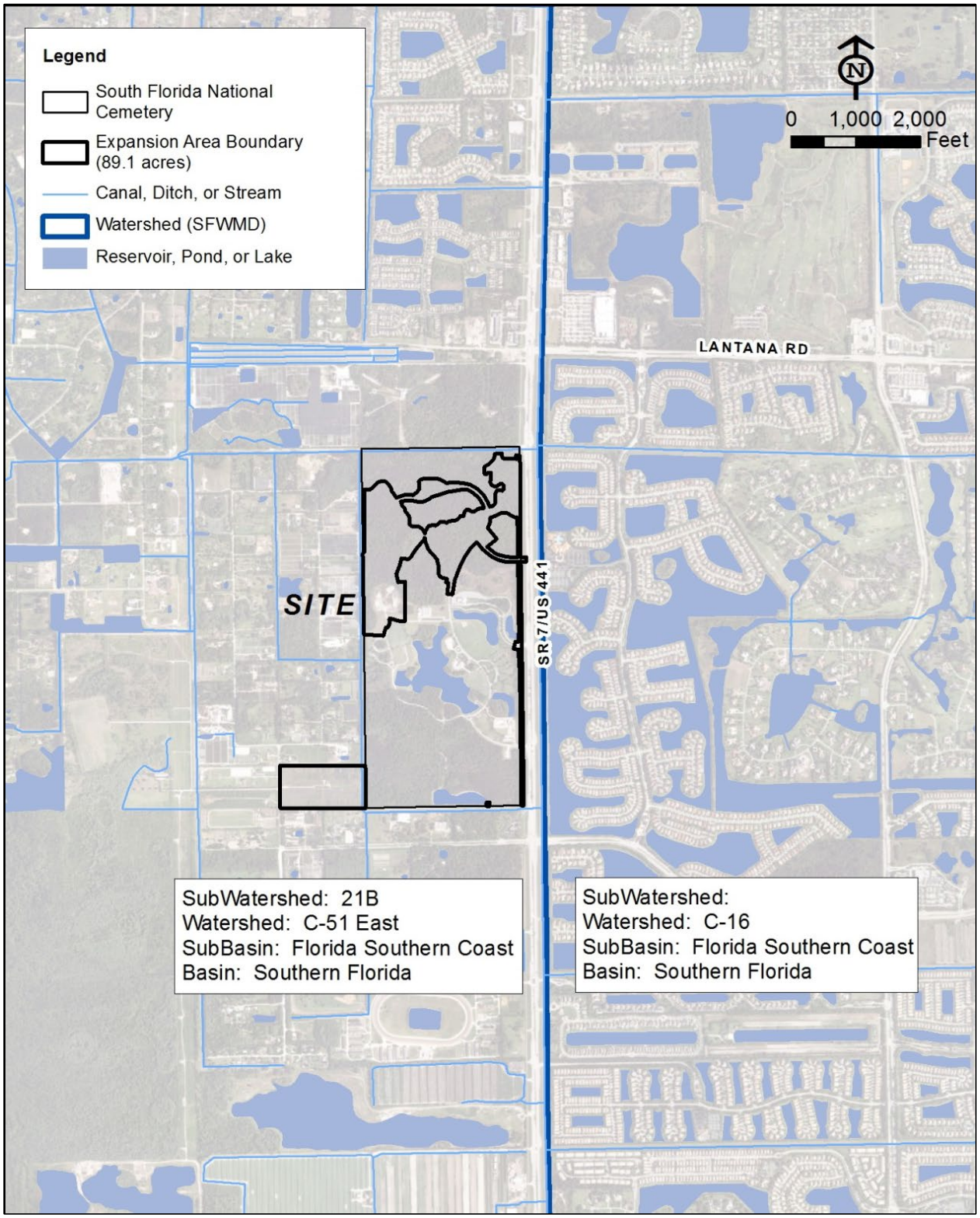
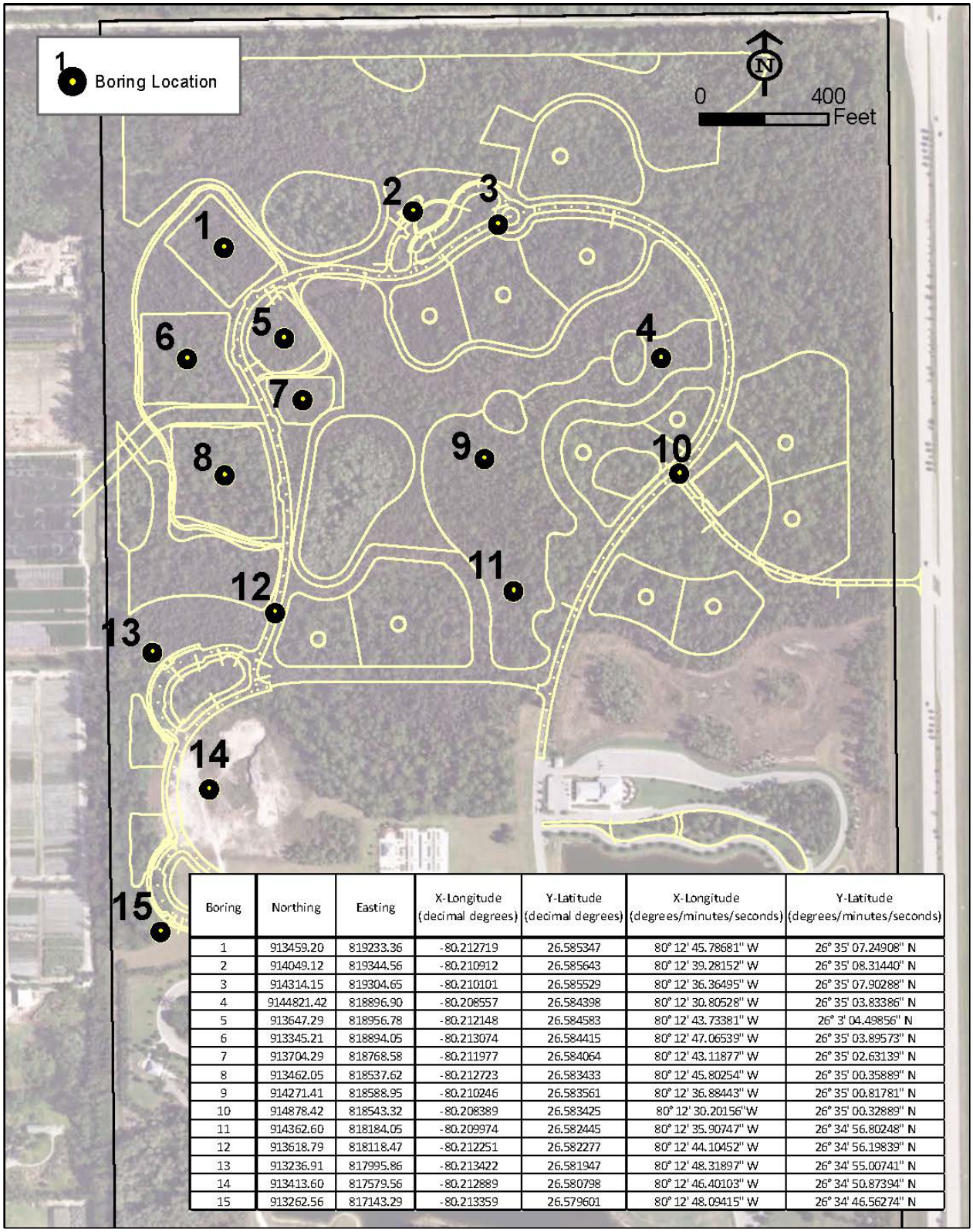


Figure 9. Geotechnical Boring Locations



Boring	Northing	Easting	X-Longitude (decimal degrees)	Y-Latitude (decimal degrees)	X-Longitude (degrees/minutes/seconds)	Y-Latitude (degrees/minutes/seconds)
1	913459.20	819233.36	-80.212719	26.585347	80° 12' 45.78681" W	26° 35' 07.24908" N
2	914049.12	819344.56	-80.210912	26.585643	80° 12' 39.28152" W	26° 35' 08.31440" N
3	914314.15	819304.65	-80.210101	26.585529	80° 12' 36.36495" W	26° 35' 07.90288" N
4	9144821.42	818896.90	-80.208557	26.584398	80° 12' 30.80528" W	26° 35' 03.83386" N
5	913647.29	818956.78	-80.212148	26.584583	80° 12' 43.73381" W	26° 3' 04.49856" N
6	913345.21	818894.05	-80.213074	26.584415	80° 12' 47.06539" W	26° 35' 03.89573" N
7	913704.29	818768.58	-80.211977	26.584064	80° 12' 43.11877" W	26° 35' 02.63139" N
8	913462.05	818537.62	-80.212723	26.583433	80° 12' 45.80254" W	26° 35' 00.35889" N
9	914271.41	818588.95	-80.210246	26.583561	80° 12' 36.88443" W	26° 35' 00.81781" N
10	914878.42	818543.32	-80.208389	26.583425	80° 12' 30.20156"W	26° 35' 00.32889" N
11	914362.60	818184.05	-80.209974	26.582445	80° 12' 35.90747" W	26° 34' 56.80248" N
12	913618.79	818118.47	-80.212251	26.582277	80° 12' 44.10452" W	26° 34' 56.19839" N
13	913236.91	817995.86	-80.213422	26.581947	80° 12' 48.31897" W	26° 34' 55.00741" N
14	913413.60	817579.56	-80.212889	26.580798	80° 12' 46.40103" W	26° 34' 50.87394" N
15	913262.56	817143.29	-80.213359	26.579601	80° 12' 48.09415" W	26° 34' 46.56274" N

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

Surface Water

Construction. Construction of the Phase 2 expansion, particularly during land clearing and grading, could increase the potential for sedimentation of run-off that, if allowed to reach existing on-site surface water bodies and wetlands, could have an adverse impact on these resources.

Likewise, the Proposed Action for the 20-acre parcel could cause minor adverse effects to surface water. Demolition of the legacy buildings may expose soil during excavation of subsurface foundations, increasing potential for sedimentation of run-off entering the bordering canals. Additionally, installing border fence footings may generate small amounts of excess soil subject to erosion, leading to sedimentation of run-off entering the bordering canals.

To minimize these potential adverse impacts, the Proposed Action would incorporate the following management measures:

- Incorporate the soil erosion BMPs previously described for soils under Section 3.4.2.1. The Phase 2 cemetery also incorporates environmentally sensitive site design to entirely avoid development in the preservation areas specified in the 2005 Master Plan and associated permits.
- The Phase 2 expansion would be designed to comply with USEPA Technical Guidance on Implementing the Stormwater Run-off Requirements for Federal Projects under Section 438 of the *Energy Independence and Security Act* (EISA) (USEPA, 2009a) to the maximum extent technically feasible through engineering and design controls, such as minimizing the creation of new impervious surfaces, directing stormwater run-off to designated storage basins, and allowing precipitation to infiltrate into the ground surface to the maximum extent possible.
- The Phase 2 cemetery would include stormwater management systems that comply with the SFWMD requirement that the post-development site has a combined site and soil storage equivalent to the pre-development condition (C-51 rule, Chapter 40E-41 Basin Criteria of the FAC). The depth of the groundwater encountered beneath the Phase 2 expansion area ranged approximately from 0.8- to 3-feet below ground surface, with some areas ponded above the ground surface. Therefore, filling of selected areas of the Phase 2 cemetery (burial areas, roadways) would be required to avoid interaction with the groundwater; to generate the grades necessary to drain into the master stormwater system via gravity; and to accommodate for burial sites.
- A request to modify to the SFWMD Water Use Permit number 50-06661-W (application number 041001-4, issued July 13, 2005, would be made to permit additional withdrawals from the proposed new pond, should future withdrawal volumes exceed the currently permitted volume. and if dewatering is necessary during construction such that the SFWMD *General Permit by Rule for Short-Term Dewatering* criteria cannot be met per Chapter 40E-2 (2 a-b).
- At the 20-acre parcel, the border fence would be installed at least 15 feet from the top of the banks of the bordering canals, and as much of the existing vegetation located between the proposed fence and the canals would be preserved to further filter and remove impurities in surface water run-off before reaching the canals.

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

Operation. Operation of the Phase 2 cemetery would generate stormwater run-off from the new impervious surfaces (roads, decorative hardscapes). This run-off volume would be directed to designated on-site storage basins, which would be designed with sufficient capacity to accommodate this increased volume and consistent with the 2005 Master Plan and associated permits. Operation of the Phase 2 cemetery would also generate small volumes of excess soils during burial operations. Excess soils not returned to the in-ground interment site would be removed from the interment area and stored at the maintenance area, where these soils would not be subject to further erosion.

Maintenance of the fence at the 20-acre parcel could require replacement of wire or cross-posts, but would not involve activities that directly or indirectly impact the surface water canals.

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

Management practices to avoid potential construction- and operational impacts are summarized in Section 5.0 in this SEA.

Groundwater

Construction. The depth of the groundwater encountered beneath the Phase 2 expansion area ranged approximately from 0.8- to 3-feet below ground surface, with some areas ponded above the ground surface. Construction of the Phase 2 expansion would encounter groundwater in many areas, including the area where the stormwater retention pond would be created. Interaction of construction equipment (e.g. metal excavator bucket) with shallow groundwater is unlikely to result in adverse impacts to groundwater quality. As noted above, a request would be made to modify to SFWMD Water Use Permit number 50-06661-W (application number 041001-4 issued July 13, 2005, to permit additional to allow for dewatering, should it be necessary during construction.

To ensure adverse impacts do not occur, construction equipment would be properly maintained in good working order and equipped with emergency spill kits. This would ensure that construction contractors are prepared to respond to an accidental release of petroleum-based fluids (diesel, hydraulic fluid) to groundwater. Additionally, construction equipment will be refueled away from exposed groundwater. As such, potential construction-related groundwater impacts are anticipated to be short-term and less-than-significant.

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

Operation. Based on standard modern burial practices, it is unlikely that embalming fluid or other decomposition products would be released into the soil and/or groundwater during operation of the Phase 2 cemetery. The standard NCA design incorporates (for full casket burials) subsurface concrete crypts, an entire section of which would be installed during site construction. Using this technique, the caskets are not buried directly in the soils, rather they are set in a pre-placed concrete crypt (established turf and soils temporarily removed crypt lid removed, casket placed, followed by the reverse process to complete). Modern embalming fluids are markedly less toxic as the primary active ingredients are no longer arsenic-based. Additionally, as selection of either cremain interments or columbaria placements increase, the potential for soil or groundwater contamination commensurately decreases as embalming fluids are not used for these interment methods.

The proposed crypt fields will utilize an adequate underdrainage system designed to keep water from reaching the inside of the lowest crypt. As a result, operation of crypt fields is not anticipated to encounter groundwater; therefore, no impact to groundwater quality is anticipated.

During operations, pesticide applications (as part of routine maintenance activities) would be conducted to the minimum extent necessary and in accordance with manufacturer specifications, resulting in negligible impacts to underlying groundwater resources.

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

Management practices to avoid potential construction- and operational impacts are summarized in Section 5.0 in this SEA.

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). Limited field surveys of habitats present within the limits of the site were conducted to assess the potential for state- and/or federally-listed species to occur within the Project Study Area in June 2001 (VA, 2001) and in December 2017. The following sections describe the findings from the 2001 and more recent 2017 surveys.

3.6.1.1 Vegetation

As described in the 2001 Final EA (VA, 2001) and confirmed during the assessment conducted in December 2017, dominant vegetation communities at the South Florida National Cemetery are comprised of: upland pine forest, cypress swamp, mixed pine/hardwood forest wetland, wet prairie/freshwater swamp, vegetated ditches, and melaleuca depressions. All of these vegetative communities have been moderately disturbed by previous land uses resulting in fragmentation, hydrologic alterations including excavation of canals, and the conversion of native vegetative communities to sustain cattle in addition to the clearing necessary to construct portions of the South Florida National Cemetery. The northern half of the South Florida National Cemetery is composed almost entirely of low-lying swamp up to the canal along the northern property border.

The Phase 2 expansion area is generally composed of mixed pine/hardwood wetlands dominated by bald cypress (*Taxodium distichum*), Florida slash pine (*Pinus elliottii*), laurel oak (*Quercus laurifolia*), and cabbage palm (*Sabal palmetto*) interspersed with dense stands of melaleuca (*Melaleuca quinquenervia*). Several cypress swamps exist in small odd-shaped depressions and consist of canopy co-dominated by bald cypress and melaleuca. Vegetation observed within this community type also includes red maple (*Acer rubrum*), swamp fern (*Blechnum serrulatum*), wax myrtle (*Morella cerifera*), Brazilian pepper (*Schinus terebinthifolius*), and various grasses, sedges (*Cyperaceae*) and rushes (*Juncaceae*). In 2001, water was observed within these areas at a depth of approximately 6-12 inches, with watermarks on trees observed at a height of approximately 18-24 inches above the ground surface (VA, 2001). In 2017, water depths (ponding above the ground surface) were recorded between 2-6 inches within the melaleuca areas and 6-14 inches within the depression cypress domes.

The wetlands in the 76-acre expansion area consist of high-quality cypress dominated wetlands and low-quality melaleuca wetlands. There are 4.0 acres of cypress swamps that are dominated by bald cypress. Vegetation observed within this community type includes water tupelo (*Nyssa aquatic*), swamp cottonwood (*Populus heterophylla*), red maple (*Acer rubrum*), American elm (*Ulmus Americana*), pumpkin ash (*Fraxinus profunda*), Carolina ash (*Fraxinus caroliniana*), overcup oak (*Q. lyrata*), and water hickory (*Carya aquatica*). There are 27.7 acres of exotic wetland hardwoods that are predominately vegetated by melaleuca.

The expansion area also includes 25.9 acres of pine flatwoods, which are dominated by slash pine, longleaf pine (*P. palustris*), or pond pine (*P. serotina*). The common flatwoods understory species include saw palmetto (*Serenoa repens*), wax myrtle, gallberry (*Ilex glabra*), and a wide variety of herbs and brush. There are 10.8 acres of disturbed land, which have been altered by human activities; 0.4 acres of roads and

highways along the eastern side of the site; and a 0.04-acre area including a reservoir, or an artificial impoundment of water, on the southern portion of the site.

The 20-acre parcel was privately operated as a commercial tree and shrub nursery for approximately 10 years between 2001 and 2012, prior to VA's purchase of the parcel in 2014. Currently, this area is overgrown with exotic species and is dominated by Brazilian pepper. Plastic landscape tarps are disbursed throughout the property and abandoned ornamental plants and shrubs remain intact in some instances. Drainage canals were observed on the northern, eastern, and southern sides of this parcel. A more shallowly excavated drainage ditch occurs on the western side of the parcel. A rectangular shaped, concrete-lined manmade irrigation pond is located near the middle of the site.

Vegetative species observed within the canals and ditches include Peruvian primrose willow (*Ludwigia peruviana*), cattail (*Typha domingensis*), Brazilian pepper, Carolina willow (*Salix caroliniana*), water hyacinth (*Eichhornia crassipes*), water lettuce (*Pistia stratiotes*), and cinnamon fern (*Osmunda cinnamomea*), along the banks. Vegetative communities are depicted in Figure 10.

During the 30-day review period for the Draft SEA, the Palm Beach County Department of Environmental Resources Management (ERM) provided comments on March 25, 2019, confirming that no permits or approvals were required from ERM; and suggesting that native trees be incorporated into the proposed site plan to the greatest extent possible and that any new lake include a planted littoral zone to help maintain the lake water quality. A copy of this correspondence is provided in Appendix A.

3.6.1.2 Wildlife

During the preparation of the 2001 Final EA (VA, 2001), the U.S. Fish and Wildlife Service (USFWS), FFWCC, and Florida Natural Area Inventory (FNAI) personnel were consulted regarding state and federally listed species. Results of the agency coordination for the 2001 Final EA indicated that state and federally listed species with the potential to occur within the site include the wood stork (*Mycteria americana*), eastern indigo snake (*Drymarchon couperi*), gopher tortoise (*Gopherus polyphemus*), and bald eagle (*Haliaeetus leucocephalus*).

With the expiration of USACE IP in 2015, VA resubmitted the project to USACE for evaluation in 2017, including a 30-day public notice. No comments were received from the USFWS. FFWCC comments received to date included notification of the bald eagle nest status on the site, as described in the following "Bald Eagle" subheading. One species, the Florida bonneted bat (*Eumops floridanus*) was recently listed by the USFWS but the South Florida National Cemetery is not located within the current range for this species. The remaining species were identified in 2001 during coordination between VA and federal and state regulatory agencies regarding the conceptual development of the South Florida National Cemetery.

It is also noted that the Loxahatchee National Wildlife Refuge located approximately 2.5 miles west of the South Florida National Cemetery is a pristine managed wetland ecosystem where wildlife would preferably inhabit.

Wood Stork (*Mycteria americana*)

FNAI indicated that potential habitat for the wood stork is within the South Florida National Cemetery property. Wood storks were observed within the South Florida National Cemetery property during initial field reviews as part of the 2001 EA (VA, 2001). Wood storks are listed as threatened by the USFWS and typically use freshwater wetlands as feeding, nesting, and roosting sites. Wood storks typically remain in an area as long as adequate food is available. During the issuance of IP number SAJ-2004-637 (IP-AAZ), the USACE determined that the project "may affect, but is not likely to adversely affect" the wood stork. In a letter dated December 1, 2004, the USFWS concurred with this determination with the condition that the proposed mitigation plan be implemented successfully to minimize adverse effects to the wood stork.

Eastern Indigo Snake (*Drymarchon couperi*)

The eastern indigo snake is listed as threatened by the USFWS. The 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 within the project area. FNAI data indicate that the eastern indigo snake has been documented within Palm Beach County, but not within one mile of the South Florida National Cemetery. No eastern indigo snakes were observed during the 2001 and 2004 field surveys. During the issuance of IP number SAJ-2004-637 (IP-AAZ), the USACE determined that the project (e.g. constructing the South Florida National Cemetery) "may affect, but is not likely to adversely affect" the eastern indigo snake. In a letter dated December 1, 2004, the USFWS concurred with this determination as long as the USFWS *Standard Protection Measures for the Eastern Indigo Snake* are implemented during all phases of site preparation and project construction.

Gopher Tortoise (*Gopherus polyphemus*)

The FFWCC coordination letter dated October 31, 2001 stated that the South Florida National Cemetery property has a small population of gopher tortoises, and that any development activities that impact gopher tortoise habitat would require coordination with the FFWCC. The gopher tortoise is listed as threatened by the FFWCC and is a candidate for listing by the USFWS. 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 December 2017 survey, no gopher tortoises were observed within the Phase 2 expansion area, though suitable habitat was observed within the disturbed land (spoils area) in the southwestern portion of the area (see the Disturbed Land area on Figure 10). Accordingly, suitable habitat within Phase 2 expansion area is required to be surveyed prior to construction. Any gopher tortoises or burrows found in or within 25 feet of the proposed expansion area will require coordination with the FFWCC to secure permits needed to relocate gopher tortoises prior to construction. With this commitment, VA has determined that the Proposed Action would not adversely affect the gopher tortoise.

Bald Eagle (*Haliaeetus leucocephalus*)

FNAI's coordination letter dated July 17, 2001 also indicated that potential habitat for the bald eagle is present within the South Florida National Cemetery property. 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.

In addition to the on-site evaluation for listed species in December 2017, a review of the FFWCC database was conducted for recorded bald eagle nests within one mile of the Project Study Area. This review revealed that there is a bald eagle nest (PB027) located in the southern portion of the South Florida National Cemetery property (26.573167, -80.211000) that was last recorded as active in 2016 (Figure 11). Thus, both its 330-foot and 660-foot nest protection buffers are within the South Florida National Cemetery but outside of the proposed Phase 2 expansion area. Any future construction activities proposed to occur between the 330-foot buffer and the 660-foot buffer would be allowed to continue during the Bald Eagle nesting season (October 1 – May 15) as long as monitoring activities are conducted according to the USFWS Bald Eagle Monitoring Guidelines. For any future construction activities proposed to occur between the 330-foot buffer and the 100-foot buffer, a Non-Purposeful Take Permit would need to be obtained from the USFWS. However, these construction activities, once authorized by the FFWCC and USFWS, must be conducted outside of nesting season.

Under the current Proposed Action, all construction activities are proposed to take place outside of the 660-foot protection zone, thus no further action pertaining to Bald Eagles is anticipated.

During the 30-day review period for the Draft SEA, USFWS provided comments on April 29, 2019, indicating there are no species protected under the *Endangered Species Act* of 1973 within the project area and did not recommend any further consultation pursuant to Section 7 of the *Endangered Species Act*. USFWS also indicated the active bald eagle nest (PB027) at the South Florida National Cemetery was identified in their records and appeared to be approximately 930 feet from the nearest limit of disturbance under the Proposed Action (the eastern boundary of the 20-acre parcel). In response to USFWS's comment regarding compliance with the buffers and potential monitoring and permits, VA confirmed on April 29, 2019, that all Proposed Action activities were outside of the 330-foot and 660-foot nest protection buffers, and all future construction activities are proposed to take place outside of the 660-foot protection zone; thus, a Non-Purposeful Take Permit is not required. This correspondence is provided in Appendix A.

Figure 10. Vegetative Communities

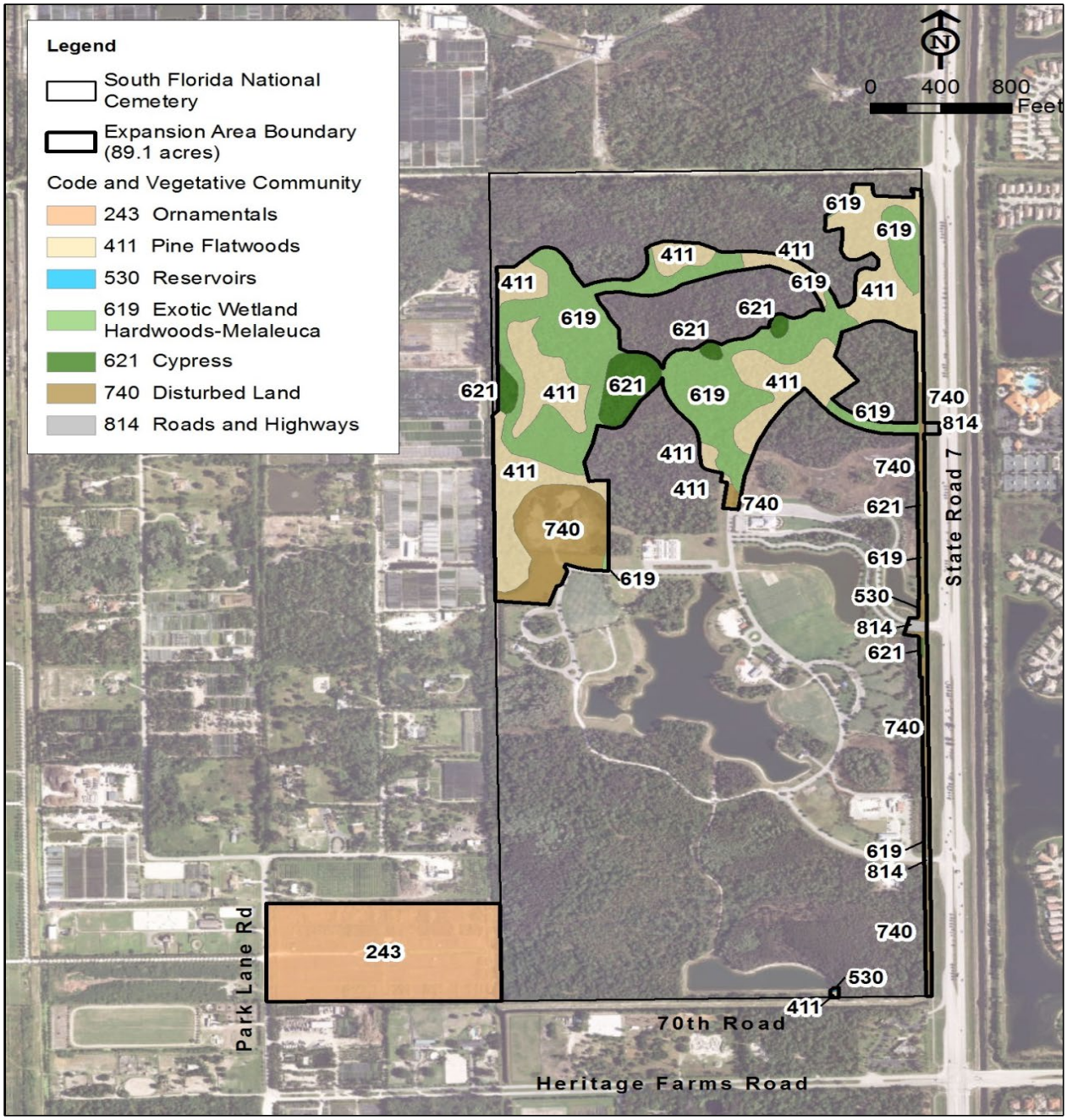
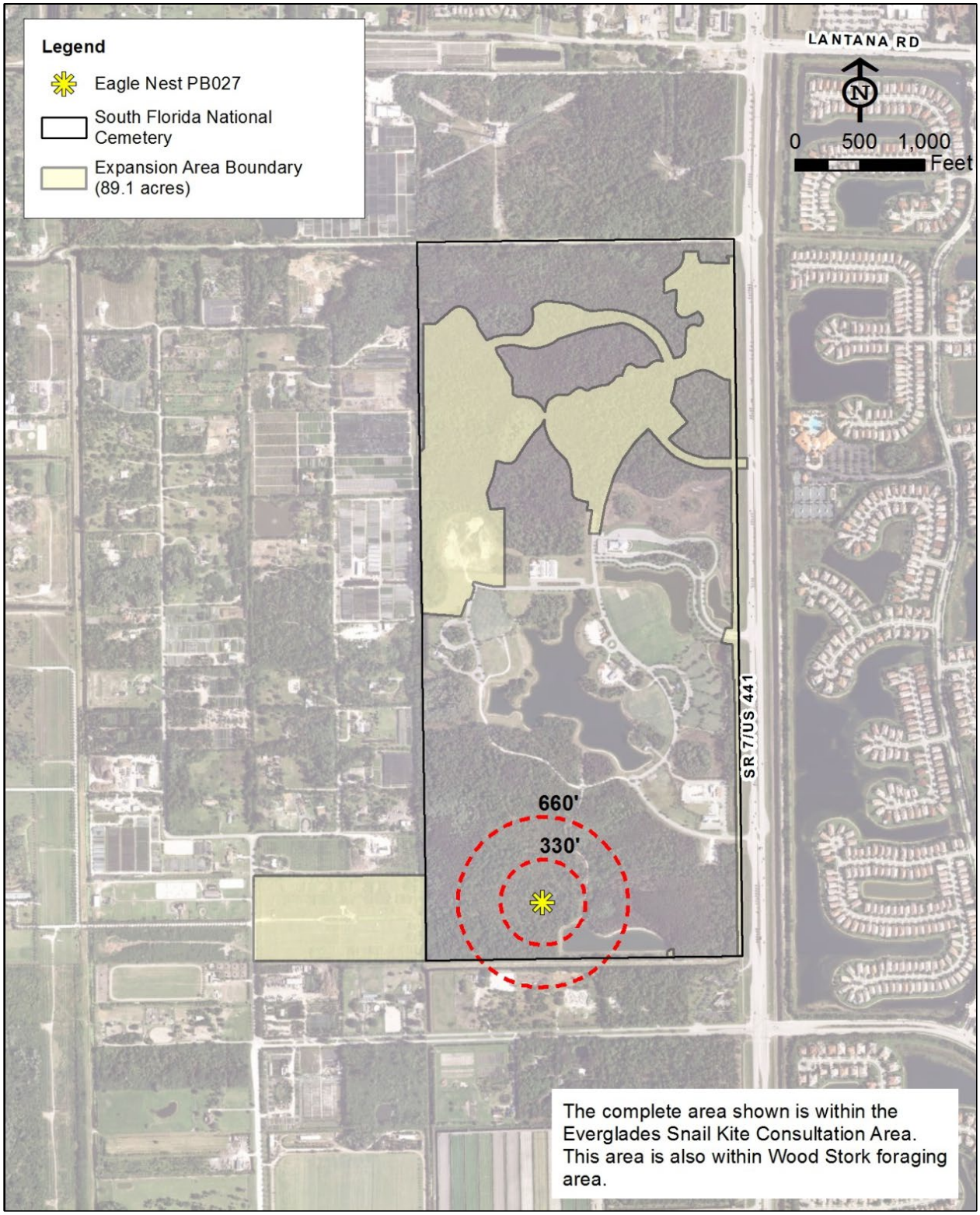


Figure 11. Threatened and Endangered Species



3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

The Proposed Action would have less-than-significant adverse impacts on biological resources. The majority of the Phase 2 expansion area habitat proposed for development is low quality wetlands dominated by exotic plant species with limited evidence of wildlife utilization, while the majority of the high-quality wetlands would be preserved and permanently protected from development.

Construction. To further avoid and minimize adverse impacts, construction of the Phase 2 expansion design would be consistent with the SFWMD and USACE permit requirements. The 76-acre Phase 2 cemetery expansion would permanently clear approximately 50 acres of existing forested vegetation, Of the 50 acres forested area to be cleared, 25.6 acres are comprised of wetland impacts that were previously compensated for both on- and off-site. Preservation areas that would be protected from development within the Phase 2 expansion area include 4.1 acres of high-quality cypress domes and 3.3 acres for wetland restoration. Approximately 8 acres of existing forest would be retained as a border around the proposed new memorial sections.

Additionally, less than 90 days prior to construction, suitable habitat within Phase 2 expansion area would be surveyed for gopher tortoises or borrows. Any gopher tortoises or burrows found in or within 25 feet of the proposed expansion area would require coordination with the FFWCC to secure permits needed to relocate gopher tortoises prior to construction. Furthermore, VA would also adhere to the USFWS *Special Protection Measures for the Eastern Indigo Snake*.

These measures would ensure that the construction of the Proposed Action would have a short-term, direct, minor, less-than-significant adverse impact on wildlife and habitat.

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

Operation. Operation of the Phase 2 cemetery expansion would have no impact on wildlife and habitat. VA would professionally landscape the newly planted vegetation and maintain the new surface water retention pond, which may serve as habitat for common animals (squirrels, birds, etc.). Lawn areas would primarily be turf grass, including Celebration bermudagrass®, St. Augustine grass (*Stenotaphrum secundatum*), and Bahiagrass (*Paspalum notatum*). The Proposed Action does not include plans for further habitat loss or creation beyond the 76-acre Phase 2 cemetery boundary. It is noted that any future major expansion phases at the South Florida National Cemetery property would be evaluated under separate NEPA analyses prior to development.

Therefore, operation of the Proposed Action would have no 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

Sound occurs when vibrations that travel through a medium are interpreted by the biological elements of the ear. Noise occurs when sounds become undesirable, unpleasant, or damaging. Noise-sensitive receptors are residences, hospitals, libraries, recreation areas, and religious institutions.

Sound pressure levels are quantified in decibels (dB), which is dependent on both frequency and intensity, and is given a level on a logarithmic scale. The way the human ear hears sound intensity is quantified in A-weighted decibel (dBA), which are level "A" weights according to weighting curves. Sound levels for common activities and construction work are presented in Table 8. Noise levels and durations from these

activities would vary depending on the specific equipment being used, and the impact from this noise on a receptor would depend on the distance between the receptor and the source of the noise. 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 National Institute for Occupational Safety and Health (NIOSH) recommends that individuals working in an environment of 85 dBA or louder for an eight-hour work day limit their exposure to this noise level and wear protective earwear to help manage and prevent hearing loss due to noise exposure.

Table 8. Common Household, Industrial, and Construction Sound Levels

Sound Level (dBA)	Common Sounds	Effect
140	Jet engine	Painful
130	Near air-raid siren	Painful
120	Jet plane takeoff, siren	Painful
110	Chain saw, Thunder, Garbage Truck	Extremely Loud
100	Hand drill	Extremely Loud
90	Subway, passing motorcycle	Extremely Loud
85	Backhoe, Paver	Very Loud
80	Blow-dryer, kitchen blender, food processor, cement mixer, power saw	Very Loud
70	Busy traffic, vacuum cleaner, alarm clock	Loud
60	Typical conversation, dishwasher, clothes dryer	Moderate
50	Moderate rainfall	Moderate
40	Quiet room	Moderate
30	Whisper, quiet library	Faint

Noise Receptors

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 receivers are considered to be residences, hospitals, libraries, recreation areas, churches, and other similar uses. No schools, hospitals, or religious institutions are located within one mile of the South Florida National Cemetery (USEPA, 2017b). Numerous residences are located adjacent to the South Florida National Cemetery.

Current Noise Conditions

Noise at the South Florida National Cemetery is currently generated during normal weekday operating hours (8 A.M. to 4:30 P.M.) from routine maintenance and operational activities (e.g. mowing, burials); visitor's driving through the cemetery; and from rifle salutes, which may occur at a committal shelter during Veteran interment ceremonies, at the flag assembly area, or other memorial areas within the South Florida National Cemetery. As detailed in Table 9, the A-weighted maximum levels (Lmax dBA) for blanks from rifle salutes at various distances and angles from a source decrease with both angle and distance (VA, 2014b). These sound levels correspond to firing directly (0 degrees) or at different angles to the receptor, and do not account for sound shielding from tree lines, berms, and other buffers; thus, actual sound levels at a receptor site are expected to be lower than those shown. For comparison purposes, speech ranges from approximately 50 to 80 dBA. The nearest of the three Phase 1 cemetery committal shelters is located approximately 115 meters (380 feet) east of a residential area and is separated from it by a partially forested area. The rifle salute sound level potentially experienced at this residential area would be approximately 58-68 dBA. Due to traffic and other industrial agricultural activities, the rifle salute sound would be an infrequent and minor contributor to overall sounds experienced in this area.

Table 9. Azimuth Predicted Noise Levels from Rifle Salutes

Distance from Source	A-Weighted Maximum Sound Level (Lmax, dBA), Degrees from Source		
Meters	**0º**	**90º**	**180º**
50	66-76	64-74	64-74
100	60-70	58-68	58-68
200	53-63	51-61	51-61
400	39-49	38-48	38-48
800	31-41	30-40	30-40
1600	21-31	20-30	20-30

The noise profile in the vicinity of the South Florida National Cemetery is dominated by vehicles traveling on U.S. 441/Route 7 (to the east) and, to a much lesser extent, on Hypoluxo Road (to the south). The traffic mix contains heavy trucks and passenger vehicles. No other notable noise-generating sources are present in the immediate vicinity of the South Florida National Cemetery.

3.7.2 Environmental Consequences

3.7.2.1 Proposed Action

Construction. Construction of the Phase 2 expansion would generate noise from the heavy equipment used for land clearing, grading, road and infrastructure construction, and from construction workers driving to and from the site. Improvements at the 20-acre parcel would generate noise from machinery used to demolish the buildings and install the fencing.

Noise levels from these activities would vary depending on the duration and type of specific equipment being used, while the impact from this noise on a receptor would depend on how far the receptor is from the noise source. Noise from construction activities varies depend on the type of equipment being used, the area that the action would occur in, and the distance from the noise source. To predict how these activities impact adjacent populations, noise from probable equipment was estimated. For example, construction usually involves several pieces of equipment (e.g., bulldozers and trucks) that can be used simultaneously. Under the Proposed Action, the cumulative noise from the equipment, during a typical day, was estimated to determine the total impact of noise from construction activities at a given distance. Examples of expected cumulative construction noise during daytime hours at specified distances are shown in Table 10.

Table 10. Estimated Noise Levels from Construction Activities

Distance from Noise Source in feet (meters)	Estimated Noise Level in dBA
50 (15.2)	90–94
100 (30.5)	84–88
150 (45.7)	81–85
200 (61.0)	78–82
400 (121.9)	72–76
800 (243.8)	66–70
1,200 (365.8)	< 64

The nearest residences are located approximately 115 meters (375 feet) west of the Phase 2 expansion area and separated from it by areas of partial forest, which naturally attenuates sound waves. Noise levels 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. Construction work would also be performed during normal weekday operating hours. As a result, noise from construction activities would not be readily discernable over ambient noise levels at this residential area.

To avoid and minimize noise-related disturbances to ongoing memorial services, the construction contractor would coordinate with the South Florida National Cemetery Administrator prior to mobilizing construction machinery through the Phase 1 cemetery. Additionally, notably loud construction activities would be scheduled to occur when these services are not being conducted, to the extent possible. If a specific construction activity generates noise anticipated to directly impact the current operation of the cemetery, then the activity would occur outside of the normal cemetery operating hours.

Potential impacts of noise from construction equipment on construction workers would be managed and avoided by following Occupational Safety and Health Administration (OSHA) Noise standard (29 CFR 1910.95), which requires employers to have a hearing conservation program in place if workers are exposed to a time-weighted average noise level of 85 dBA or higher over an 8-hour work shift (OSHA, 1981). Accordingly, hearing protectors would be available to workers who may be exposed to sounds at or above 85 dBA.

Therefore, noise generated during construction of the Proposed Action would have a short-term, direct, negligible, less-than-significant adverse impact on off-site receptors, visitors, and workers.

Management measures to limit and further reduce potential construction-related impacts are summarized in Section 5.0 in this SEA.

Operation. The Proposed Action includes one new committal shelter where ceremonial rifle salutes would may also occur. Visitor and staff maintenance vehicles (e.g. mowing, pressure washers) would travel into the Phase 2 expansion area, generating noise in this area. However, these noise sources, levels, and temporary durations would be similar to those currently generated at the Phase 1 cemetery; these noises have not resulted in any documented complaints from visitors or nearby receptors.

Therefore, operational noises associated with the Proposed Action would have a long-term, direct, negligible, less-than-significant adverse impacts on these 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, grounds maintenance activities, and visitors' vehicles traveling within the Phase 1 cemetery.

3.8 Land Use

3.8.1 Existing Environment

The South Florida National Cemetery is located in unincorporated Palm Beach County and within an Agriculture Residential ("AR") zoning district. To the west and south of the South Florida National Cemetery, the predominant land uses are for agricultural and some residential areas, while undeveloped forested land is present beyond the northern border. To the east across U.S. 441/S.R. 7, large plats developed with single-family homes is the predominant land use.

3.8.2 Environmental Consequences

3.8.2.1 Proposed Action

Construction and Operation. The Proposed Action would have no impact on land use at or in vicinity of the South Florida National Cemetery. The Phase 2 cemetery would be located within the existing boundary of the South Florida National Cemetery, in an area already planned and permitted for cemetery use, and would not require or lead to changes in land use in the vicinity of the South Florida National Cemetery. Likewise, the Proposed Action for the 20-acre parcel would have no impact on land use in the vicinity.

3.8.2.2 No Action

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

3.9 Floodplains, Wetlands, and Coastal Zone Management

3.9.1 Existing Environment

3.9.1.1 Wetlands

Based on data presented in the 2001 Final EA (VA, 2001) and the subsequent 2005 SFWMD ERP and 2005 USACE IP (VA has applied for IP reauthorization), five wetland communities were present within the South Florida National Cemetery (VA, 2001). These wetland communities included remnant cypress swamps, mixed pine/hardwood forest, wet prairie/freshwater marsh, vegetated ditches, and melaleuca depressions. All of these vegetative communities have been moderately disturbed by fragmentation, hydrologic alterations including excavation of canals, cattle foraging, and previous vegetation clearing activities. Several abandoned man-made ditches were reportedly excavated to control water for historical agricultural purposes and to maintain groundwater elevation at 16 feet amsl. Additionally, the proposed Phase 2 expansion area consisted primarily of dense stands of melaleuca that surrounded small remnant cypress swamps. Furthermore, the northern portion of the South Florida National Cemetery was composed almost entirely of low-lying swamp up to the canal that borders the site to the north. Water was observed within these areas at a depth of approximately 6-12 inches with watermarks on trees observed at a height of approximately 18-24 inches above the ground surface (VA, 2001).

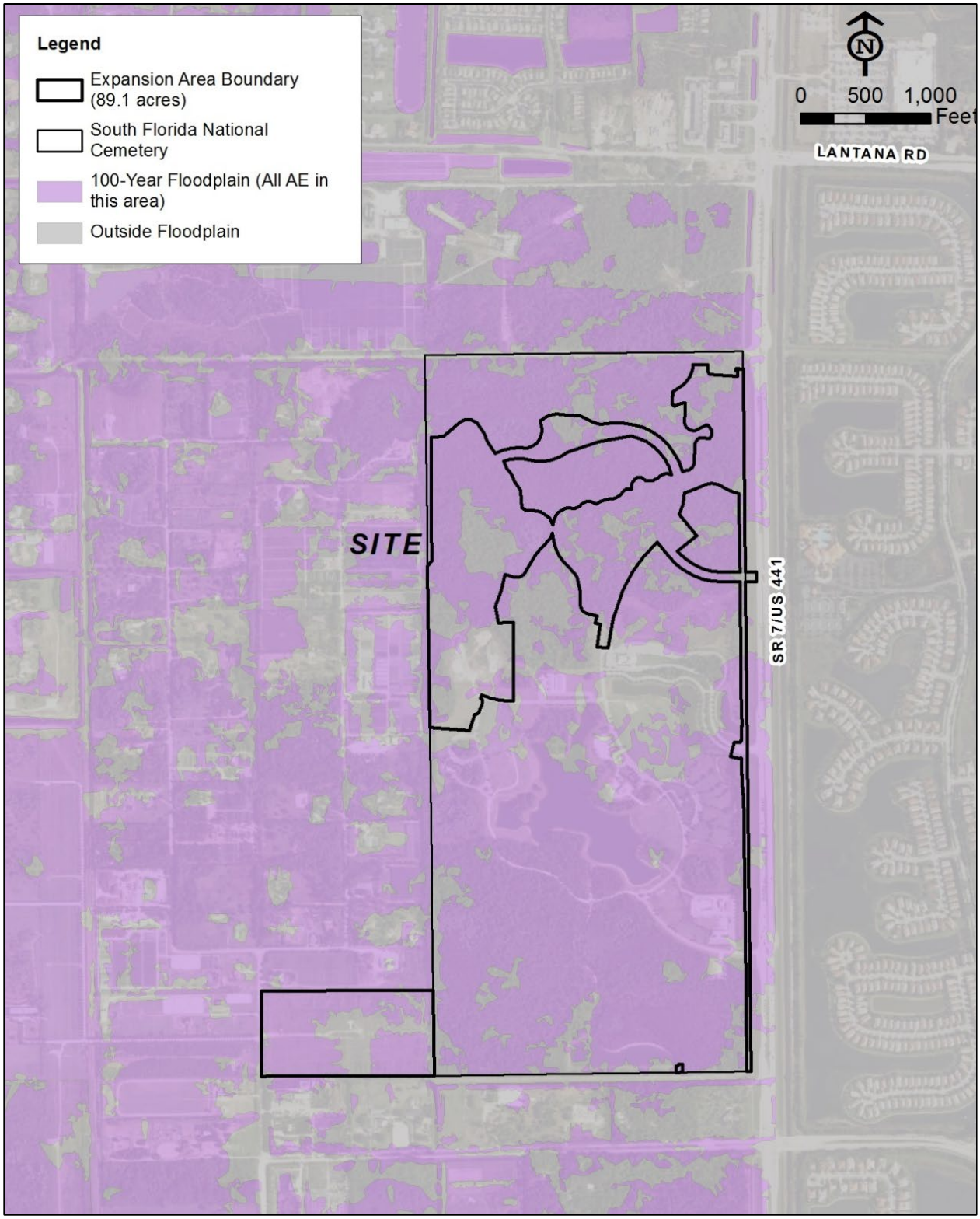
As part of this SEA, VA retained Mabbett and AECOM to verify the extent of wetland jurisdiction within the proposed Phase 2 expansion area. A site review was conducted with USACE staff in December 2017 and resulted in no change to the extent of federal jurisdiction within the footprint of the Phase 2 expansion (refer to Figure 3 and Figure 7). The Proposed Action would impact 25.6 acres of wetlands that met the following criteria of the USACE: hydric soils, hydrophytic vegetation, and hydrology.

The wetland assessment conducted in December 2017 also identified an additional 1.2 acres of jurisdictional wetlands located outside of the boundary of the proposed Phase 2 expansion area, yet was still within the overall 2005 Master Plan design footprint. This wetland, located in the southern/central western portion of the property, had been "created" from maintenance activities, and was confirmed with USACE to be jurisdictional. A functional assessment determined that the purchase of 0.54 wetland credits would be needed to offset unavoidable impacts to this wetland system during potential future development according to the existing permitted 2005 Master Plan. Accordingly, VA has included a commitment to purchase 0.54 credits from the Loxahatchee Mitigation Bank in its application for the reauthorized USACE IP, which VA would obtain prior to initiating construction of the Proposed Action. The USACE is currently reviewing the application.

3.9.1.2 Floodplains

According to the available Federal Emergency Management Agency (FEMA) floodplain map (Flood Insurance Rate Map [FIRM] Map Number 12099C0755F, effective October 5, 2017) the South Florida National Cemetery and the 20-acre parcel are located in "Zone AE," which is defined as an area that would be inundated by a 100-year flood in which base flood elevations have been determined (Figure 12).

Figure 12. Floodplain Map



3.9.1.3 Coastal Zone Management

The *Coastal Zone Management Act* (CZMA) was enacted in 1972 to preserve, protect, develop, and where possible, to restore and enhance the resources of the nation's coastal zone. Coastal States are encouraged to develop state coastal management programs, and comprehensively manage and balance competing uses of and impacts to coastal resources. The United States Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) approves coastal management programs. The Florida Coastal

Management Program (FCMP) was approved by NOAA in 1981 and is codified at Chapter 380, Part II, 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 per Florida Statute Section 373.428 (*Federal Consistency*).

The Florida State Clearinghouse (SCH) administers the intergovernmental coordination and review process for federal projects in Florida. The SCH is Florida's single point of contact for coordinating state agency reviews. The Draft SEA was submitted to the SCH to initiate the review for consistency with the FCMP. On June 3, 2019, SCH responded that the state had no objections to the project and the funding award is consistent with the FCMP. A copy of the letter is provided in Appendix A.

It is also noted that Palm Beach County maintains a coastal zone management ordinance via the Palm Beach County Code of Ordinance 13-79 Comprehensive Plan.

3.9.2 Environmental Consequences

3.9.2.1 Proposed Action

Similar to previous phases of construction of the South Florida National Cemetery, VA would implement the following avoidance and management measures to prevent and reduce potential adverse effects to wetlands/Waters of the United States, floodplains, and coastal zones. These measures are incorporated into the design of the Proposed Action and consistent with existing USACE and SFWMD permits.

Wetlands

Construction and Operation. The conceptually approved and permitted design for the Phase 2 expansion avoids impacts to high-quality onsite wetlands/Waters of the United States and includes a comprehensive compensatory mitigation plan to offset unavoidable impacts to low-quality melaleuca-dominated wetlands. The final design for the proposed expansion would maintain a buffer of undisturbed land around the identified wetlands/Waters of the United States and on-site mitigation areas. Construction activities would occur in a manner that complies with conditions included in the USACE IP, SFWMD ERP, and FDEP NPDES Construction General Permit, to minimize adverse effects to wetlands/Waters of the United States prior to and during construction.

To minimize potential adverse effects to wetlands/Waters of the United States, the design has considered the following:

- The previous jurisdictional determination from the USACE regarding identified wetlands/Waters of the United States.
- Avoidance of onsite and adjacent wetlands and surface waters and floodplains in accordance with the approved mitigation program.
- Balance of pre/post stormwater retention and/or treatment.
- Permit criteria from the USACE, SFWMD, and FDEP.

The Phase 2 cemetery design would consider the following state processes that review future proposed development plans and potential for effects to surface water and groundwater conditions:

- Pre/post 100-year volume stormwater retention in association with any proposed future development of the site.
- Conceptually-approved SFWMD stormwater management system requirements that were designed to accommodate runoff generated by the Phase 2 expansion.
- The potential for sinkhole formation and the potential for direct discharge to the groundwater aquifer.
- In addition, to further minimize potential adverse effects, the Phase 2 cemetery design incorporates the following BMPs:
- Sufficient, properly engineered stormwater management infrastructure, so as to not adversely affect the flood elevations or water quantity/quality in receiving waters and/or offsite areas. Post-project hydrology will be equivalent to pre-project hydrology through the appropriate engineering design and implementation of a proposed stormwater management system located at the South Florida National Cemetery.
- FDEP NPDES Construction General Permit requirements, including BMPs identified in the SWPPP and SESC.
- A site design that prevents surface water runoff to the onsite and adjacent surface waters and avoids interaction with onsite and adjacent surface waters.
- Permit criteria from Federal (USACE) and State (SFWMD and FDEP) agencies.

Therefore, construction and operation of the Proposed Action would have a long-term, direct, minor, less-than-significant adverse impact on wetlands/Waters of the United States.

These measures are summarized in Section 5.0 in this SEA.

Floodplains

Construction and Operation. As previously mentioned, the Phase 2 expansion area is located within the 100-year floodplain. Impacts to low-quality forested wetlands are anticipated and have already been permitted, as previously discussed in Section 3.5.1.1. Additionally, the Phase 2 expansion elevations for burial areas and roadways are designed to avoid impacts (e.g. flooding) associated with a 100-year flood event. Therefore, construction and operation of the Proposed Action would be anticipated to have no impact on floodplains.

Coastal Zone Management

VA anticipates that the Proposed Action would be consistent with the FCMP and have no adverse impact on coastal zone resources. The Draft SEA was submitted to the Florida SCH for coordinating the FCMP consistency review. No response was received.

3.9.2.2 No Action

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

3.10 Socioeconomics

3.10.1 Existing Environment

The South Florida National Cemetery is located in unincorporated Palm Beach County, Florida. The socioeconomic conditions of this area are influenced by the range of industries present, from agriculture in

the western portion of the county, to small and large retail and commercial industries including aeronautics in more urban areas, as well as from tourism and supporting businesses. Since 1990, the population in the county has increased by approximately 70 percent, from approximately 880,000 to 1,500,000 by 2017; this is slightly higher than the 60 percent increase throughout Florida over the same time period. This increase is due to natural growth and immigration from the Caribbean (primarily Haiti and Cuba), Mexico, and Colombia. In 2010, the median household income in the county was approximately $53,000, with approximately 12% of the population living below the poverty level. Population and relevant demographic figures for all of Palm Beach County and the State of Florida are presented in Table 11. A summary of economic data, presented in Table 12, indicates that poverty and unemployment levels in Palm Beach County are similar to those throughout Florida.

Table 11. Demographic Data for State of Florida and Palm Beach County

Location	Total Population[1]	Median Age[2]	% Population under age 18[1]	% Minority Population[1,3]	% High School Graduates[2]	Veterans[2]
Palm Beach County	1,471,150	44.1	19.3%	45.2%	87.9%	87,989 (6.4%)
State of Florida	20,984,400	41.4	20.0%	45.9%	87.2%	1,480,133 (7.3%)

Notes:
1 – U.S. Census 2017
2 – U.S. Census 2012-2016
3 – Includes all race/ethnicity categories except non-Hispanic White persons

Table 12. Economic Data for the State of Florida and Palm Beach County

Location	Number of Households[1]	Median Household Income[1]	% Population in Poverty[1]	% Unemployment Rate[2]
Palm Beach County	538,549	$55,277	12.6%	3.3%
State of Florida	7,393,262	$48,900	14.7%	3.8%

Notes:
1 – U.S. Census, 2012-2016 American Community Survey 5-Year Estimates
2 – Florida Department of Economic Opportunity, 2018

3.10.2 Environmental Consequences

3.10.2.1 Proposed Action

Construction. VA would contract with a qualified firm to construct the Phase 2 expansion and complete the demolition and fencing at the 20-acre parcel. Constructing the Phase 2 cemetery expansion would require employment of skilled and non-skilled labor during the approximately 18-month work period, as well as purchase of materials (ex. aggregate, plantings) from local or regional suppliers. Demolition of the existing structure and installation of fencing at the 20-acre parcel is anticipated to take 2 months.

The temporary increase in employment and spending on materials would have a short-term, direct, negligible, beneficial impact on the local economy during the construction period. These construction-related beneficial impacts would end once the construction phases are completed.

Operation. The current workforce at the South Florida National Cemetery is anticipated to be sufficient to maintain and operate the Phase 2 cemetery and to maintain the fencing at the 20-acre parcel. If needed, additional maintenance staff could be hired to help maintain the Phase 2 cemetery. Maintaining or slightly increasing staff levels would have a negligible beneficial impact on the socioeconomic condition of the local area or region.

The Phase 2 cemetery would increase the interment capacity, and therefore the longevity, of the South Florida National Cemetery. Over time, this would lead to a slight increase in the number of visitors to this area of south Florida. These visitors could potentially utilize area businesses (restaurants, lodging, service stations, etc.) during visits. Although the potential increase in spending has not been quantified for this SEA, the increase would be anticipated to have a negligible beneficial impact on the socioeconomic conditions in the vicinity of the South Florida National Cemetery. Additionally, extending the longevity of the South Florida National Cemetery allows Veterans to be interred here, allowing their families/visitors who may reside in south Florida to avoid having to travel longer distances to a National Cemetery outside of this region.

Therefore, operation of the Proposed Action would have a long-term, direct, negligible, beneficial impact on socioeconomics.

3.10.2.2 No Action

Under the No Action alternative, the Proposed Action would not be implemented, and the longevity of the South Florida National Cemetery would not be extended. The benefits associated with the Proposed Action would not be realized. Following closure of the South Florida National Cemetery to new interments, Veterans choosing burial at a National Cemetery would have to select a location outside of the south Florida region. Future visitors who reside in south Florida would incur greater costs (fuel, lodging) associated with traveling longer distances to the selected National Cemetery. Therefore, the No Action alternative would have a short- and long-term, negligible, less-than-significant adverse impact on socioeconomics.

3.11 Community Services

3.11.1 Existing Environment

The South Florida National Cemetery has provided burial benefits for Veterans and their families in south Florida since opening in 2007. There is not a National Cemetery within 75-miles of the South Florida National Cemetery. The Sarasota National Cemetery, Florida, is the nearest National Cemetery and is located approximately 170-miles northwest of the South Florida National Cemetery.

The Palm Beach County Public Transportation System (Palm Tran) does not provide service to the South Florida National Cemetery; the nearest stops are located more than 3 miles away. However, Palm Tran offers Palm Tran Connection, a pre-scheduled, shared ride, door-to-door paratransit service that provides transportation for disabled residents and visitors in Palm Beach County under the *Americans with Disabilities Act,* Division of Senior Services, and the Transportation Disadvantaged Program.

Other community services are provided by Palm Beach County and include police and fire protection, ambulatory 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 are not analyzed in this SEA.

3.11.2 Environmental Consequences

3.11.2.1 Proposed Action

Construction and Operation. The Phase 2 cemetery would increase the interment capacity by 21,750, and therefore extend the longevity of the South Florida National Cemetery. This would allow VA to meet the continued demand for burial benefits by Veterans and their families in the south Florida region for at least the next 10 years, resulting in a long-term, direct, significant beneficial impact on this community resource.

3.11.2.2 No Action

Under the No Action alternative, the Phase 2 cemetery would not be constructed, there would be no increase in burial capacity, and due to gravesite depletion, the longevity of the South Florida National Cemetery would not be extended. Veterans, their families, and visitors would have to travel more than 75 miles—a distance considered to be an undue burden—to obtain burial benefits at another National Cemetery in Florida. The No Action alternative would not comply with the *Servicemembers Civil Relief Act*. This would result in a long-term, significant adverse impact to this community resource.

3.12 Solid and Hazardous Materials

3.12.1 Existing Environment

There are no known solid or hazardous materials present within the Phase 2 expansion area at the South Florida National Cemetery (VA, 2001).

Current operations at the South Florida National Cemetery generate solid waste consisting 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 managed by VA and transported by a licensed contractor for off-site disposal.

Minimal quantities of hazardous materials are stored at the South Florida National Cemetery maintenance complex. These materials include diesel and gasoline in separate aboveground storage tanks, and temporary storage of waste oil that is transported and disposed of off-site by a third-party vendor. Other minimal quantities of hazardous materials may be 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 currently stored in the central western portion of the Phase 1 cemetery and not readily visible to visitors within the cemetery.

At the 20-acre parcel, a Phase I Environmental Site Assessment (ESA) was conducted in 2012. One 250-gallon diesel aboveground storage tank (AST) and one 500-gallon diesel AST associated with the former irrigation water pumps were present on the 20-acre parcel (VA, 2014). The diesel ASTs and pumps were located on concrete slabs; no visible evidence (stains) of spills or releases of diesel was observed on the concrete slabs (VA, 2014). Additionally, the Palm Beach County Department of Environmental Resources Management indicated that no registered fuel tanks were associated with the parcel and no record of on-site contamination existed. The Phase I ESA identified other suspected hazardous materials, limited to small quantities of pesticides stored and used at the time when the parcel was a nursery. The Phase I ESA recommended no further investigations of the parcel (VA, 2014).

Additionally, in 2013, representative samples of building materials from the outbuildings were collected for analysis for asbestos and lead (VA, 2014). The data indicated selected materials contained regulated concentrations of ACM and LBP. Specifically, approximately 40-linear feet of caulking located on the western window frames of the western “horse stall” structure contained Category I non-friable ACM in poor condition, according to USEPA National Emission Standard for Hazardous Airborne Pollutants (NESHAP) regulations. Lead-based paint was present in the peach-colored paint on the interior concrete block walls inside the former horse stall tack room, and in the green-colored paint on the horse stall doors.

As stated in the 2014 Final EA (VA, 2014), the renovation and demolition of buildings containing asbestos is regulated under NESHAP and the OSHA Asbestos Construction Standard (29 CFR 1926.1101) (OSHA, 1994). It is important to note that even though an activity may be exempt from the NESHAP regulations; such exemption does not extend to OSHA standards or other state and federal statutes. Based on the quantities of caulking found on the “horse stall” building windows, the removal of this material would be exempt from NESHAP, but would require the timely submittal of a complete "Notification of Asbestos Removal Project" form to the Palm Beach County Health Department (PBCHD), which acts as the

controlling agency in Palm Beach County (Chapter 62-257, FAC). This activity would also require compliance with the OSHA Asbestos Construction Standard.

Additionally, the disturbance of LBP is regulated by OSHA. The demolition of buildings is regulated under the NESHAP statue for general dust control. The disposal of commercial waste materials containing lead from renovation, abatement, and/or demolition is regulated by the Resource Conservation and Recovery Act. Also, several guidelines and regulation by the FDEP are applicable. The agencies that control activities involving LBP include the PBCHD and the USEPA Region 4.

3.12.2 Environmental Consequences

3.12.2.1 Proposed Action

Construction/Demolition. Construction of the Phase 2 expansion would generate solid waste, consisting of cleared vegetation, excess soil, and excess construction materials and packaging. Cleared vegetation would be transported off-site for composting. Excess soils would be reused onsite as fill to raise the elevation of burial areas in the Phase 2 expansion area. Excess construction materials would be containerized in a designated area within the construction site, 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 the volumes generated are not anticipated to make a major contribution to the overall solid waste volume generated and disposed of in Palm Beach County or the south Florida region.

Prior to demolition of the outbuildings at the 20-acre parcel, ACM and LBP would be abated from the identified building materials by VA's licensed contractor(s). The abatement and subsequent transport and off-site disposal of these regulated building materials would be performed in compliance with all local, state, and federal regulations, as previously described. Following abatement, the building materials would be demolished, and the debris would be transported off-site for recycling; debris that cannot be recycled would be landfilled off-site. Installation of the posts for the border fence would require removal of a minimal amount vegetation, which would be left on-site to serve as habitat and naturally decompose. Any excess metal fence debris would be collected by the contractor for reuse or off-site recycling.

Staging and operation of construction equipment at the Phase 2 expansion area and the 20-acre parcel carries an increased potential for incidental releases of operating fluids and chemicals. Construction contractors would be required to perform proper scheduled vehicle inspections and maintenance to reduce the potential for releases, as well as maintaining an on-site spill kit with employees trained in its use.

Additionally, all construction contractors would comply with VA's solid and hazardous materials Standard Operating Procedures (SOP) and management measures specified in NCA Master Construction Specifications. These management measures would ensure that construction of the Phase 2 cemetery and demolition of the legacy buildings would have a short-term, direct, negligible, less-than-significant adverse impact on solid wastes and hazardous materials.

Operation. Operation of the Phase 2 cemetery would result in a negligible increase in the volume of solid waste currently generated at the South Florida National Cemetery. These wastes include flowers and other debris left behind at memorial sites, as well as excess soil generated during in-ground burials. No new types of solid wastes would be generated. The solid waste management program currently in place at the South Florida National Cemetery is capable of handling this additional volume without impacting on-going operations.

Hazardous materials used during operation of the Phase 2 expansion would be limited to approved pesticides and/or herbicides, applied according to the manufacturers' labeled instructions. These materials would be used for insect control and weed management. Herbicides would also be used to prevent vegetation overgrowth of the fencing at the 20-acre parcel.

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

These management practices to avoid potential construction and operational-related impacts are summarized in Section 5.0 in this SEA.

3.12.2.2 No Action

No changes to solid and hazardous materials generation or management would occur under the No Action alternative. However, the outbuildings on the 20-acre parcel would continue to deteriorate, increasing the potential for the release of small quantities of ACM and LBP to the environment. Therefore, the No Action alternative would have a minor, direct, negligible, less-than-significant adverse impact on solid waste and hazardous materials.

3.13 Transportation and Parking

3.13.1 Existing Environment

3.13.1.1 Roadways

The South Florida National Cemetery main entrance is located along U.S. Highway 441/State Road 7. A second maintenance-only entrance is located south of the main entrance on Highway 441. U.S. Highway 441/State Road 7 is a north-south oriented divided road with six-lanes that are in good condition and is maintained by the Florida Department of Transportation. U.S. Highway 441/State Road 7 has a "B" Level of Service.

The Phase 2 expansion area is accessible from the northern segment of the existing main ring road within the South Florida National Cemetery. This main roadway 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 roadway shoulder but off of the grass.

There are no paved roads within the Phase 2 expansion area.

The 20-acre parcel is accessible from North Park Lane Road, an asphalt-paved two-lane rural road.

3.13.1.2 Parking

A cortege area located north of the Administration/Public Information Center provides a designated parking area for visitors attending a memorial service. A separate contractor/maintenance parking area is located next to the maintenance building and is accessible from the maintenance entrance. This separation ensures construction equipment is not readily visible to visitors and maintains the solemnity of the South Florida National Cemetery. No other developed parking areas are present within or in the vicinity of the South Florida National Cemetery.

3.13.1.3 Traffic

Operation of the South Florida National Cemetery contributes approximately 350 vehicles to the daily traffic volume in the vicinity. This traffic represents an average of 10 funeral services performed per weekday, with each funeral cortege containing approximately 30 vehicles, as well as a small number of vehicles from employees, contractors, and visitors.

As reported by the Palm Beach County Traffic Division, daily traffic volume on U.S. Highway 441/State Road 7 in 2012 was 30,179 vehicles in the section between Hypoluxo Road and Lantana Road, and 39,267 vehicles in the section between Lantana Road and Lake Worth Road, with highest traffic volume occurring the morning peak hours (VA, 2014). Operation of the South Florida National Cemetery has not resulted in significant adverse impacts to the area traffic levels or the transportation network to date.

As previously described under Community Services, the nearest public transportation bus service line is located more than 3 miles away from the South Florida National Cemetery.

3.13.2 Environmental Consequences

3.13.2.1 Proposed Action

Construction. Construction of the Phase 2 expansion would result in a temporary increase in the number of vehicles (construction trucks and workers' vehicles) traveling on U.S. Highway 441 to access the South Florida National Cemetery. U.S. Highway 411 (Level of Service B) is adequate for handling this temporary increase in roadway use, and no modifications to this roadway or traffic patterns would be required.

Unless otherwise directed by the South Florida National Cemetery Administrator, construction vehicles would be required to enter and exit the South Florida National Cemetery from the existing maintenance road entrance (south of the main entrance along U.S. Highway 441/Route 7). If warranted, flaggers may be utilized to notify oncoming traffic of slower construction vehicles entering or exiting the maintenance road.

The roadways within the South Florida National Cemetery are adequate to support construction vehicles and the temporary increase in traffic. Thus, the roadways would not require physical alternation or traffic pattern modifications. To avoid disrupting the solemnity committal services, processions, and cortege travel, the construction contractor would coordinate with the South Florida National Cemetery Administrator prior to mobilizing construction equipment through the Phase 1 cemetery.

Construction vehicles would enter and exit the 20-acre parcel from the gated entrance located on North Park Lane Road. North Park Lane Road is capable of handling the short-term increase in construction traffic without any modification or closure.

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

These management practices to avoid potential construction-related impacts are summarized in Section 5.0 in this SEA.

Operation. Operation of the Phase 2 cemetery expansion would not generate a measurable increase in traffic from visitors on roadways within and in vicinity of the South Florida National Cemetery. Operation of the Phase 2 expansion would not require any new parking areas within or in vicinity of the South Florida National Cemetery. Visitors would continue to be allowed to park on the shoulder of the new roadway within the Phase 2 cemetery. No modifications to other existing roadways, transportation patterns, or parking capacity would be required to operate the Phase 2 cemetery.

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

3.13.2.2 No Action

No changes to transportation or parking at the South Florida National Cemetery would occur under the No Action alternative; therefore, no impacts would occur. Baseline conditions would remain, as described above.

3.14 Utilities

3.14.1 Existing Environment

The Phase 2 expansion area is currently undeveloped and is not serviced by any utilities. The developed portion of the South Florida National Cemetery is currently serviced by following utilities:

- Palm Beach County Water Utility SA, which provides potable water and waste water services;
- Florida Light and Power (FLP), which supplies the electric service;
- Florida Public Utilities (FPU), which supplies natural gas;
- AT&T/Comcast/XFINITY, which provide telecommunication services; and
- The Solid Waste Authority (SWA) of Palm Beach County, which provides solid waste and recycling collection services.

3.14.2 Environmental Consequences

3.14.2.1 Proposed Action

Construction. Construction of the Phase 2 cemetery would not require the use of permanent utilities. Construction equipment would be powered by on-board engines and, if required, portable generators. Operation of the Phase 2 expansion would require the use of utility services for irrigation water, stormwater management, and electricity. During the construction phase, the stormwater retention pond would be created and connected to the existing pond system at the cemetery. This expanded pond network would supply the irrigation water for the newly landscaped grounds within the Phase 2 expansion area. Constructing the pond and connections would not disrupt the use of other existing ponds (also used for irrigation water supply) at the cemetery.

During construction, the existing electrical utility lines within the cemetery would be extended to the proposed new flagpole assembly area. Extending this utility would not require interrupting service to other areas within or outside of the South Florida National Cemetery. However, prior to extending the electrical utility, the construction contractor would communicate with the utility provider to ensure the work does not disrupt service within the South Florida National Cemetery or to other customers in the community.

Therefore, construction of the Phase 2 expansion would have no impact on utilities.

Operation. Operation of the Phase 2 cemetery would require stormwater management, irrigation water, and electricity. The new stormwater retention pond would be balanced with the existing ponds through a series of culverts. The proposed new stormwater retention pond is designed to supply 100 percent of the anticipated water volume needed to irrigate the landscaped portion of the Phase 2 cemetery. An increase in electricity usage would result from lighting the flagpole memorial and operating the irrigation water pumps. This increase in electricity usage would be considered negligible relative to the current electrical use at the South Florida National Cemetery and would have no impact on service quality at the cemetery or to other utility customers in the community.

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

3.14.2.2 No Action

No changes to utility requirements at the South Florida National Cemetery would occur under the No Action alternative; therefore, no impacts would occur. Baseline conditions would remain.

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 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.

Data for this analysis was obtained for minority and low-income populations located within a 1-mile radius of the South Florida National Cemetery; for all of Palm Beach County; and for the State of Florida (Table 13). According to this data, the area within a 1-mile radius of the South Florida National Cemetery has a lower percentage of minority and low-income populations than Palm Beach County or the State of Florida.

Table 13. Minority and Low-Income Populations

Location	Total Population[1]	% Minority Population[1,2]	% Population below Poverty Level[1]
1-mile radius of the South Florida National Cemetery	6,239	14.0%	9.0%
State of Florida	20,984,400	45.9%	14.7%
Palm Beach County	1,471,150	45.2%	12.6%

Notes:
1 – U.S. Census, 2017
2 – Includes all race/ethnicity categories except non-Hispanic White persons

3.15.2 Environmental Consequences

3.15.2.1 Proposed Action

Construction and Operation. Construction and operation of the Phase 2 expansion has no mechanism to cause permanent changes in local population levels, income, housing, local tax revenues, or other non-cemetery-related community services. The Proposed Action would not have a disproportionate impact on low-income or minority groups in Palm Beach County. However, the Proposed Action may provide a temporary increase in local employment levels if the contractor(s) selected to perform construction/demolition activities hires qualified workers from local pool available. Hiring local workers would result in a short-term, direct, beneficial but negligible socioeconomic impact on the community.

Overall, the Proposed Action is not anticipated to have an impact on Environmental Justice communities.

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

CEQ regulations stipulate that the cumulative effects analysis should consider the potential environmental effects resulting from "the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (federal, state, and local) or individuals. Informed decision making is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

Past activities are those actions that occurred within the geographic scope of cumulative effects that have shaped the current environmental conditions of the project site. For many resource areas, the effects of past actions are now part of the existing environment and are included in the description of the affected environment.

The scope of the cumulative effects analysis involves the timeframe and geographic extent to which effects could be expected to occur, and a description of the resources that could be cumulatively affected. The geographic Region of Influence (ROI) is an important consideration when discussing cumulative effects from construction and operations. For the purposes of this analysis, the ROI was determined to be the South Florida National Cemetery and the immediately surrounding community in Palm Beach County. An effort was undertaken to identify other projects for evaluation in the context of the cumulative impact analysis. This was further developed through review of public documents and information gained from the coordination with various applicable agencies.

3.16.1 Cumulative Actions Considered

As discussed in the 2001 Final EA for site selection (VA, 2001) and in Chapters 2 and 3 of this SEA, the Proposed Action would modify portions of the proposed Phase 2 expansion area while also preserving sensitive resources through compliance with existing permits and environmentally sensitive design. Overall, no significant adverse cumulative impacts on the environment, induced by changes from implementing the Proposed Action, are anticipated within the ROI.

Historically, the South Florida National Cemetery property was used as farmland, as evidenced by the historic canal systems used to irrigate the property. Portions of the property were used for cattle grazing up until the time of its purchase by NCA in 2002. Since opening for burials in 2007, the property use has been restricted to and maintained for cemetery operations. During this time, land development around the property has changed from rural/agricultural uses to mixed residential/commercial uses, predominantly to the east, north, and south of the site. Rural/agricultural activities to the west of the site have generally remained unchanged during this period.

Since 1989, the Palm Beach County Comprehensive Plan (revised October 30, 2017) sought to guide long-range planning and community development of the county, and included sub-areas having unique development concerns. The sub-area encompassing the South Florida National Cemetery is the West Boynton Community Plan, which is included in the Comprehensive Plan. The South Florida National Cemetery is identified in the Comprehensive Plan on the *Future Land Use Atlas of Palm Beach County* (Atlas Page 80, dated August 8, 2016).

According to the Comprehensive Plan, the area including and surrounding the South Florida National Cemetery is to remain as a Rural Residential area (RR-10: 1 unit per 10 acres) for the foreseeable future. Areas beyond the general vicinity of the South Florida National Cemetery are identified for potential future residential areas (RR-5: 1 unit per 5 acres; LR-1: Low residential, 1 unit per acre), agriculture preservation areas, small industrial areas (equivalent to a small commercial plaza), and a planned high school near Lake Worth Road (approximately 3-miles northeast of the cemetery). There are no other future major projects identified in vicinity of the South Florida National Cemetery as having the potential for cumulative effects.

3.16.2 Effects of Cumulative Actions on the Proposed Action

The anticipated impacts associated with the potential future developments identified in the Palm Beach County Comprehensive Plan, when considered cumulatively with those of the Proposed Action, would not lead to significant adverse impacts to any of the resources analyzed in this SEA. The Proposed Action would not result in the significant loss of agricultural land or lead to a change in the rural/agricultural nature of the surrounding community to the west of the property, nor would it prevent future development in the increasingly commercial/residential areas east, south, and north of the property.

The proposed Phase 2 cemetery expansion is located within the existing boundary of the South Florida National Cemetery in an area that, while currently forested primarily by invasive melaleuca, was previously used for cattle grazing. The use of this portion of the property for continued cemetery activities is consistent with existing permits and the 2005 Master Plan. While construction of the Phase 2 cemetery would require localized changes to several aspects of the current environment (e.g. topography; tree removal; new landscaping), operation of the Phase 2 cemetery is generally low-intensity, having few, if any, adverse impacts on the surrounding natural or built environment. Additionally, VA has constructed and operated dozens of similar cemetery expansions without resulting in cumulative impacts. This is primarily due to VA's implementation of BMPs during construction and operation to ensure that potential adverse impacts are maintained at less-than-significant levels.

Therefore, no significant cumulative adverse impacts are anticipated from implementing the Proposed Action.

3.16.3 Effects of Cumulative Action under the No Action Alternative

Under the No Action alternative, the Phase 2 cemetery expansion would not be developed. Due to gravesite depletion, the longevity of the South Florida National Cemetery would not be extended. VA would not be able to meet identified Veterans' burial needs in the south Florida region. These Veterans would be required to select another National Cemetery having available capacity or choose another burial option. Under the No Action alternative, the proposed Phase 2 expansion area would remain forested, though native trees in this area would likely continue being displaced by melaleuca without further restoration activities. Therefore, the environmental benefits contributed by the Proposed Action, including removal of melaleuca during restoration of wetlands and establishment of preservation areas, would not occur under the No Action alternative.

3.17 Potential for Generating Substantial Controversy

The Proposed Action would extend the longevity of the South Florida National Cemetery. The Veteran community and the wider public anticipate that the South Florida National Cemetery would be expanded according to the 2005 Master Plan, as needed to account for the continued demand for burial opportunities within this National Cemetery. As discussed in previous sections, there are no significant adverse impacts that would generate negative public perception or reaction associated with implementing the Proposed Action. Considering these factors, implementing the Proposed Action would be widely accepted and would reduce the potential to generate significant public controversy.

Under the No Action alternative, the South Florida National Cemetery would be closed to new burials once the remaining gravesite capacity is reached, which is anticipated to occur in the next 4 to 6 years. Veterans and their families seeking burial at a National Cemetery with capacity would be required to travel outside of the south Florida region. Therefore, the No Action alternative would be anticipated to generate substantial adverse public controversy.

4 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR Part 26, VA's policy for implementing NEPA. Additional guidance is provided in VA's Environmental Compliance Handbook (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 the Draft and Final SEA.

4.1 Draft SEA

4.1.1 Federal, State, and Local Agency Coordination

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding federal Proposed Actions. CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental effects. Through the IICEP process, VA notifies relevant federal, state, and local agencies and allows them sufficient time to make known their environmental concerns that are specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental effects conducted as part of the SEA. This coordination fulfills requirements under EO 12372, *Intergovernmental Review of Federal Programs* (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires federal agencies to cooperate with, and consider, state and local views in implementing a federal proposal. It also constitutes the IICEP process for this document. In Florida, the FDEP Office of Intergovernmental Programs administers the IICEP process through the Florida SCH.

The federal, state, and local agencies listed in Table 14 have been contacted to review the Draft SEA and provide comments during a 30-day review period. It is noted that the Florida SHPO was also contacted during the development of the Draft SEA. The SHPO's comments have been incorporated into the Draft SEA, as described under the Cultural Resources heading in Section 3.3.

Table 14. Federal, State, and Local Agency Coordination Summary

Federal Agencies
U.S. Army Corps of Engineers, Jacksonville District, Public Affairs Office
U.S. Department of Agriculture, National Resources Conservation Service
U.S. Environmental Protection Agency, Region 4, NEPA Program Office
U.S. Fish and Wildlife Services Field Office, South Florida Ecological Service
Loxahatchee National Wildlife Refuge
State Agencies
Florida Clearinghouse (central point of distribution for the following state agencies)
Florida Department of Environmental Protection
Florida Department of Environmental Protection, Division of Air Resource Management, Southeast District
Florida Department of Transportation, District 4
Florida Fish and Wildlife Conservation Commission
South Florida Water Management District, Environmental Resource Permitting
Florida Coastal Office (Coastal Zone Management Program)
Florida Division of Historical Resources of the Florida Department of State (SHPO)

Local Agencies
Lake Worth Drainage District
Palm Beach County Department of Environmental Resources Management
Palm Beach County Health Department, Environmental Health & Engineering
Palm Beach County Department of Planning, Zoning & Building
Palm Beach County, Engineering and Public Works Department
Palm Beach County Board of County Commissioners

Comments on the Draft SEA were received from USEPA, USFWS, SFWMD, and Palm Beach County ERM. Comments from regulatory agencies have been incorporated and addressed in the Final SEA and were considered prior to a decision being made on whether or not to implement the Proposed Action. None of the comments were opposed to the Proposed Action nor required substantive revisions to the analyses or conclusions presented in the Draft SEA. Copies of all correspondence are included in Appendix A.

4.1.2 Native American Coordination

In accordance with 36 CFR 800.2 and EO 13175, Consultation and Coordination with Indian Tribal Governments, dated November 6, 2000, VA coordinated with 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. The Native American Tribes consulted included:

- Miccosukee Tribe of Indians of Florida
- Seminole Tribe of Florida
- Seminole Nation of Oklahoma
- The Muscogee (Creek) Nation

As previously described under the Cultural Resources heading in Section 3.3.1, VA solicited input from these Native American Tribes during early development of the Draft SEA. The Seminole Tribe of Florida was the only Tribe that responded to VA's request for early input. As noted in Section 3.3.1, the Seminole Tribe of Florida initially requested that VA conduct a Cultural Resources Assessment Survey of the 20-acre parcel, but rescinded this request upon reviewing additional information about the Proposed Action. Copies of the correspondence are provided in Appendix A.

Additionally, VA notified the four federally-recognized Native American Tribes in writing of the opportunity to comment during the 30-day review period for the Draft SEA. Comments were received from only the Seminole Nation of Oklahoma. As discussed in Section 3.3.1, VA responded and addressed these comments and has agreed to make available a remote parcel of land for future reburials of human remains of Seminoles under any NAGPRA action that occurs within the local area (should such remains be discovered); implement the inadvertent discovery plan, including notifications, should cultural or archaeological resource material or human remains be encountered. Copies of this correspondence are provided in Appendix A.

4.1.3 Public Involvement

VA made the Draft SEA available for public comment during a 30-day review period. A Notice of Availability (NOA) announcing the release of a Draft SEA was published in the *Palm Beach Post* on March 28 and 31, 2019. The Draft SEA was available for review at the South Florida National Cemetery and the Lantana Road Branch of the Palm Beach County Library at 4020 Lantana Road, Lake Worth, Florida, 33462, and from VA's website at http://www.cem.va.gov/cem/EA.asp. The NOA directed the public to submit comments or questions to Mr. Fernando L. Fernández, U.S. Dept. of Veterans Affairs, Construction & Facilities Management Office, 425 I (eye) Street, NW, Room 6W417b, Washington, D.C., 20001; by

email to fernando.fernandez@va.gov; or by telephone at (202) 632-5529. No public comments were received during the 30-day review period. The NOA affidavit of publication is included in Appendix C.

4.2 Final SEA and FONSI

The analyses presented in the Draft SEA and comments received provided sufficient evidence for VA to determine that the Proposed Action would not cause significant environmental impacts on the environmental resources presented herein. Thus, VA concluded that an EIS is not warranted and has prepared a FONSI, which incorporates this Final SEA by reference in its entirety.

A NOA announcing the release of the Final SEA and FONSI has been published in the *Palm Beach Post*. As stated in the NOA, the Final SEA and FONSI have been made available for review in print at the South Florida National Cemetery and the Lantana Road Branch of the Palm Beach County Library at 4020 Lantana Road, Lake Worth, Florida, 33462, and in electronic format at VA's website http://www.cem.va.gov/cem/EA.asp. As stated in the NOA, additional information may be requested from Mr. Fernando L. Fernández at U.S. Department of Veterans Affairs, Office of Construction & Facilities Management, 425 I (eye) Street, NW, Room 6W417a, Washington, D.C., 20001; via email to Fernando.fernandez@va.gov; or by telephone at (202) 632-5529.

An administrative record containing these documents is maintained at VA OCFM in Washington, D.C.

5 ENVIRONMENTAL MANAGEMENT MEASURES AND MONITORING

This chapter summarizes the avoidance, minimization, and management measures (identified in Chapter 3) that have been incorporated into the Proposed Action to ensure that any adverse impacts remain at or below minor, less-than-significant adverse levels. "Management measures" are defined as routine BMPs and/or regulatory environmental compliance and protection measures that are regularly implemented as part of proposed activities, as appropriate, across Florida. Per established protocols, procedures, and requirements, VA (and VA's design and construction contractors) would implement these management measures and satisfy all applicable regulatory requirements associated with the design, construction, and operation of the Proposed Action. These management measures are summarized in Table 15. Additionally, environmental permits and approvals potentially required for construction and operation of the Proposed Action are provided in Table 16.

Table 15. Environmental Protection Measures and Monitoring incorporated in the Proposed Action

AESTHETICS
Construction
Control fugitive dust emissions through routine construction BMPs, including using water trucks to prevent dust emissions, and install gravel-covered pads to remove dirt from the tires of vehicles leaving the Proposed Action construction site.
Erect temporary privacy fence around the construction zone, particularly around the proposed flag pole assembly area, which is visible from existing Phase 1 cemetery areas and visitors.
Operation
Perform routine and scheduled professional landscape maintenance to ensure the upkeep of the park-like appearance of the grounds and associated physical infrastructure (e.g. roads, interment areas).
AIR QUALITY
Construction
Reduce emissions associated with on-road construction vehicles by consolidating material deliveries and stage heavy equipment on-site to reduce mobilizations.
Minimize emissions associated with importing fill from an off-site borrow by utilizing suitable excess soil excavated from the new stormwater construction pond as the source of fill to raise elevations of burial areas and roadways within the Phase 2 expansion area.
Implement dust suppression methods to include application of water and construction scheduling (avoid earthwork during extremely windy and dry periods or when there is an emergency weather advisory). Additionally, haul tarps would be used to cover any soils transported to or from the construction site.
Stabilize exposed soil with native, non-invasive vegetation or mulching to minimize erosion and potential dust generation.
Limit construction vehicle speeds on paved roads within the South Florida National Cemetery and vicinity at or below posted limits to minimize dust generation. On unpaved surfaces at the site, maintain vehicle speeds at or below five miles per hour to minimize dust generation from exposed soil
Visually monitor all construction activities on a daily basis, particularly during extended periods of dry weather; implement additional dust control measures as needed.
Limit engine idling to less than five minutes and implement USEPA-recommended diesel controls including the use of clean diesel through add-on control technologies such as diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment
CULTURAL RESOURCES
Construction
Comply with federal and state regulations and continue coordination with the SHPO and affected parties. In the unlikely event that human remains or cultural resources are encountered during construction, an "Inadvertent Discovery" plan should be immediately implemented.
If prehistoric or historic artifacts 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 and the Florida Department of State, Division of Historical Resources, Compliance Review Section, as well as the Seminole Tribe of Florida and the Seminole Nation of Oklahoma, would be contacted immediately.
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*, including the Seminole Tribe of Florida and the Seminole Nation of Oklahoma.
Operation
In the unlikely event that human remains or cultural resources are encountered during operation, the aforementioned "Inadvertent Discovery" plan would be immediately implemented, including notifications. The plan would require that all ground-disturbing activities cease, and the Construction Supervisor would immediately contact VA for guidance on the next steps to be taken.
GEOLOGY, SOILS, AND TOPOGRAPHY
Construction
Adhere to the terms of the FDEP National Pollution Discharge Elimination System (NPDES) General Permit for Construction Activity/SWPPP (incorporating the SESC plan) and the SFWMD ERP (Chapter 62-330, FAC).
Install and maintain sedimentation and erosion control measures specified in the SWPPP and SESC, 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 native, non-invasive vegetation as soon as construction conditions allow.
Reuse suitable excess soils as a source of on-site fill to the maximum extent practicable.
Operation
Conduct routine landscaping to ensure soil remains vegetated and stabilized to prevent erosion.
Temporarily stockpile excavated soil for individual burial sites at the maintenance area (or other designed on-site storage area). Sod new burial sites to prevent erosion of soil.
HYDROLOGY AND WATER QUALITY
Construction and Operation
Implement the BMPs listed above for Geology, Soils, and Topography to minimize sediment-laden runoff from reaching wetlands and surface water bodies.
Develop a site design that accounts for pre/post 100-year volume stormwater drainage and retention at a minimum.
Utilize native, non-invasive, drought-resistant vegetation for area landscaping to reduce irrigation volumes.
Design impervious areas to drain stormwater runoff to designated stormwater retention ponds.
Clear ephemeral drainages and intermittent and perennial streams of all work items, debris, or other obstructions placed by, or resulting from, construction operations.
Implement spill and leak prevention and response procedures, including maintaining a complete spill kit at the project area, to reduce the impact of incidental releases of petroleum-based fluids from construction and operational equipment to groundwater or surface water quality.
Locate machinery servicing and refueling areas away from streambeds and washes to reduce the possibility and minimize the impacts of accidental spills or discharges.
During operations, pesticide/herbicide applications (as part of routine maintenance activities) would be conducted to the minimum extent necessary and in accordance with manufacturer specifications, to avoid impacts to underlying groundwater resources.
WILDLIFE AND HABITAT
Construction
Less than 90 days prior to construction, VA will conduct surveys for the state-listed gopher tortoise (*Gopherus polyphemus*). If present, coordinate with FFWCC for permits to relocate individual animals to an approved off-site recipient location.
Adhere to the USFWS *Special Protection Measures for the Eastern Indigo Snake*.

Avoid any disturbance (no clearing, grading, parking, or staging of equipment or supplies) within permit-defined preservation areas. Accordingly, within the approximately 76-acre expansion area, only 62.6 acres will be developed, while the remaining 7.4 acres will be preserved. Of this preservation area, 4.1 acres is cypress preserved area and 3.3 acres is restoration wetland preserved area.
Use native, non-invasive species when revegetating land disturbed by construction to avoid the potential introduction of non-native or invasive species.
Operation
Utilize native, non-invasive, drought-resistant vegetation for area landscaping to reduce irrigation requirements.
Landscape lawn areas primarily with turf grass, including Celebration bermudagrass®, St. Augustine grass (*Stenotaphrum secundatum*), and Bahiagrass (*Paspalum notatum*).
NOISE
Construction
Coordinate with the South Florida National Cemetery Administrator prior to mobilizing construction machinery through the Phase 1 cemetery to avoid and minimize noise-related disturbances to ongoing memorial services.
Schedule construction activities to minimize impacts to memorial services to the extent possible, 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.
Comply with OSHA requirements to protect hearing of workers around loud construction equipment.
Use properly maintained and muffled vehicles and equipment.
Locate stationary operating equipment as far away from surrounding residents as possible. Shut down heavy equipment and other noise emitters when they are not in use.
FLOODPLAINS, WETLANDS AND COASTAL ZONE MANAGEMENT
Construction and Operation
Complete and monitor onsite wetland restoration requirements according to USACE IP and SFWMD ERP specifications.
Avoid disturbance to other wetlands outside of the development area, as previously described for Soils and Habitat.
Prevent surface water runoff to the onsite and adjacent surface waters and avoid interaction with onsite and adjacent surface waters.
SOLID WASTE AND HAZARDOUS MATERIALS
Construction
Recycle excess construction materials to the maximum extent practicable.
Operation
Manage solid wastes in designated areas and establish routine pickup and disposal to appropriate landfill facilities by qualified vendors.
Manage solid and hazardous wastes according to VA's solid and hazardous materials SOPs and management measures specified in NCA Master Construction Specifications, and applicable federal and state laws.
TRANSPORTATION AND PARKING
Construction
Coordinate with the South Florida National Cemetery Administrator to identify the preferred entrance and exit point at the South Florida National Cemetery, relative to daily mobilization of construction equipment and workers associated with the Phase 2 expansion.
Coordinate with the South Florida National Cemetery Administrator prior to mobilizing construction machinery through the Phase 1 cemetery to avoid interfering with cortege travel.
Stage construction equipment where it is not readily visible to visitors, maintaining the solemnity of the park-like setting of the Phase 1 South Florida National Cemetery.

If warranted, utilize flaggers to notify oncoming traffic of slower construction vehicles entering or exiting the cemetery from State Road 7.
UTILITIES
Construction
In advance of improving any utility connections at the site, communicate with the electric utility provider to ensure no disruptions occur within the South Florida National Cemetery or to other customers in the community.

Table 16. Environmental Permits and Approvals Potentially Required

Permit, Approval, or Certification	Responsible Agency	Applicable Criteria	Required Actions	Permitting Schedule	Comments
Federal and State Environmental					
Environmental Resource Permit (ERP) https://www.sfwmd.gov/doing-business-with-us/permits/environmental-resource-permits	South Florida Water Management District (SFWMD)	Required for projects which affect surface waters, wetlands, or sovereign submerged lands. FDEP coordinates review with other state agencies to address natural resource and cultural resource issues.	Conduct a Pre-Application Meeting with a district engineer and/or environmental specialist to ensure that the proposed design meets stormwater discharge requirements and that the phased development is being constructed in accordance with the comprehensive mitigation plan. Submit an ERP permit application including the stormwater calculations and construction level drawings for review and approval prior to starting construction.	1 month to prepare application. Agency review takes approximately 3 months.	An existing valid conceptual permit ERP permit exists but a construction permit is necessary to authorize phased construction.
Consumptive Water Use Permit	South Florida Water Management District (SFWMD)	Modification of existing Water Use Permit No. 50-06661-W (under application 041001-4) will be required to accommodate the expansion of the facility to cover construction dewatering, landscape irrigation, potable and/or wastewater facilities, in accordance with Chapter 40E-2, FAC.	Conduct a Pre-Application Meeting with the SFWMD to establish the methodology and approach to the permit modification.	Modifications are generally issued in 60-90 days from the time the application is deemed complete.	SFWMD can confirm type of permit required (e.g. dewatering, diversion and impoundment).
General Permit by Rule for Short-Term Dewatering	South Florida Water Management District (SFWMD)	Short-term dewatering operations are authorized under Chapter 40E-2 (2 a-b)	The following criteria need to be met: 1. Has a maximum daily pumpage of less than 5 million gallons (MG) and a maximum total project pumpage of less than 100 MG over a one year period; 2. Will retain all discharge on the project site unless associated with an aquifer performance test; 3. Will not dewater to a depth below 0.0 feet NGVD (or equivalent NAVD) within 1,000 feet of saline water, except when dewatering water with a chloride concentration of greater than 1,000 milligrams per liter; 4. Will not occur within 100 feet of a wastewater treatment plant rapid-rate land application system permitted under Part IV of Chapter 62-610, F.A.C.; 5. Will not occur within 1,000 feet of a known landfill or contamination; and, 6. Will not occur within 1,000 feet of a freshwater wetland unless dewatering activities are completed within 60 days.	SFWMD grants a General Permit by Rule for all consumptive uses within the District that satisfy the criteria.	No further coordination is necessary if the criteria can be met.
Individual Permit (IP) http://cdm16021.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/1753	U.S. Army Corps of Engineers (USACE)	Adverse impacts would be mitigated in consultation with the USACE who serves as the project manager for federal agency coordination.	Completion of ENG 4345 and preparation of supplemental information necessary to evaluate the extent and characteristics of the affected wetland communities and/or impacts to habitat deemed suitable for occupation by federally listed species.	1 month to prepare application. Agency review takes approximately 9-12 months.	Reauthorization request for the expired IP has been submitted and is currently being reviewed.

Permit, Approval, or Certification	Responsible Agency	Applicable Criteria	Required Actions	Permitting Schedule	Comments
Section 401 Water Quality Certification (Clean Water Act)	Florida Department of Environmental Protection (FDEP)	Projects with potential to impact waters of the United States		No separate application required. Approximately 3 months as part of ERP Permit processing.	This certification will be issued with the ERP Permit listed above.
NPDES Construction General Permit/Stormwater Pollution Prevention Plan (SWPPP), incorporating the Soil Erosion and Sedimentation Control (SESC) Plan http://www.fldepportal.com/go/apply-build/ http://www.dep.state.fl.us/water/stormwater/npdes/	Florida Department of Environmental Protection (FDEP)	Construction of any facility that disturbs 1 acre or more	Obtain and review the Construction General Permit (CGP). Develop and Implement a SWPPP, incorporating a SESC Plan. Complete and submit a CGP Notice of Intent (NOI) with application fees. Submit a Notice of Termination to discontinue coverage.	2 weeks to prepare, 2 days to achieve permit coverage	The NOI gets submitted to FDEP in Tallahassee.
Gopher Tortoise Conservation Permit http://myfwc.com/license/wildlife/gopher-tortoise-permits/conservation-permits/	Florida Fish and Wildlife Conservation Commission (FFWCC)	Florida Fish and Wildlife Conservation Commission (FFWCC)	Conduct a minimum 15% survey to initiate permitting within suitable habitat. This species has not been observed to date, but it is highly mobile. Survey results are valid for 90 days. Therefore, within 90 days, but no less than 72 hours prior to construction and/or burrow excavation, a 100% survey must be performed and submitted to FFWCC. All tortoises captured must be transported to the recipient site identified within the permit. Applicant must obtain a reservation letter from a permitted recipient site to relocate the population off-site.	1 month to prepare application. Agency review takes approx. 3 months.	This permit is not required if no gopher tortoises are found during the survey conducted 90 day prior to construction.
Other Permits/Approvals					
Biological Opinion (BO)	United States Fish and Wildlife Service (USFWS)	There will be no significant adverse effects to federally listed threatened or endangered species due to proposed activities.	VA has initiated Section 7 Consultation through the USACE IP permitting process.		Adverse impacts to federally listed species were not identified in the previous authorized IP. None are expected as part of the reauthorization.

ASSUMPTIONS

Local permits will not be obtained.

6 LIST OF PREPARERS

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8 GLOSSARY

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- Glossary of Terms Used in Department of Energy NEPA Documents, http://energy.gov/sites/prod/files/NEPA_Glossary%2008_2011.pdf
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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 Environmental Protection Agency 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 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 confirms 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 c 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 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; 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 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 the 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), PM10, PM2.5: 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, PM10 includes only those particles equal to or less than 10 micrometers (0.0004 inch) in diameter; PM2.5 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 §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 (40CFR §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.

Wetlands: Those areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do, 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 – Regulatory Communications

Appendix B – Environmental Survey Reports

Appendix C – Public Comments

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Appendix C – Public Involvement