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 implement the VA’s 2018 Site Expansion Master Plan for the National Cemetery of the Alleghenies (NCOTA), located at 1158 Morgan Road, Bridgeville, Pennsylvania.

Under the Proposed Action, future expansion phases would be designed according to the 2018 Master Plan. The next proposed expansion is Phase 3, which would be constructed in the northern portion of NCOTA over the next two years and provide approximately 13,500 new burial areas and minor infrastructure improvements adjacent to the Phase 1 cemetery in the northern portion of NCOTA. The 2018 Master Plan also includes up to 10 potential future expansion phases in the southern portion of NCOTA. Over the course of full buildout, the southern expansion phases would provide approximately 50,900 new burial areas, roadways, and infrastructure including stormwater and irrigation management systems. The VA would evaluate the need to implement each potential future expansion phase approximately every 8-10 years. Separate National Environmental Policy Act (NEPA) assessments would be performed prior to implementing a potential future expansion phase.

The VA has determined that if the longevity of the NCOTA is not extended by expanding burial capacity beyond the current Phase 1 cemetery, then future generations of eligible Veterans and their families increasingly would not have long-term, reasonable access to burial benefits at a National Cemetery in southwestern Pennsylvania. Presently, in Pennsylvania, the nearest National Cemeteries to southwestern Pennsylvania include the Indiantown Gap National Cemetery in Annville (approximately 250 miles east) and the Philadelphia National Cemetery in Philadelphia (approximately 325 miles east). The nearest National Cemeteries outside of Pennsylvania are the West Virginia National Cemetery in Grafton, West Virginia (approximately 90 miles south); the Ohio Western Reserve National Cemetery in Seville, Ohio (approximately 100 miles northwest); and the Winchester National Cemetery in Winchester, Virginia (approximately 130 miles south). These National Cemeteries in Pennsylvania and beyond are not located within a reasonable distance of Veterans and their families in the southwestern Pennsylvania region.

Purpose and Need

Accordingly, 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 NCOTA.

The Proposed Action is needed to allow the NCA to continue meeting its goal of providing eligible Veterans with reasonable access to VA burial options in southwestern Pennsylvania.

Alternatives

The VA has prepared this SEA to evaluate the potential impacts of implementing the Proposed Action. This SEA also evaluates the potential impact of a “No Action” alternative, defined as not implementing the Proposed Action and maintaining conditions at NCOTA as they currently exist. These two alternatives are summarized below:
• The **Proposed Action** is to implement potential expansions at NCOTA according to the 2018 Master Plan design. The Phase 3 expansion in the northern portion of the property would be constructed over the next two years and provide approximately 13,500 new burial sites, while up to 10 potential future expansion phases in the southern portion of the property would provide approximately 50,900 new burial sites, roadways, and other infrastructure improvements. The need for potential future expansion phases would be evaluated by the VA every 8-10 years, with separate NEPA analyses completed prior to implementing an expansion. The Proposed Action meets the purpose and need for action and would extend the longevity of the NCOTA and accommodate long-term burial needs of future generations of Veterans and their families in southwestern Pennsylvania.

• The **No Action** alternative is to maintain the NCOTA as it presently exists and not implement the Proposed Action expansion phases described in the 2018 Master Plan. Under the No Action alternative, the longevity of the NCOTA 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 southwestern Pennsylvania. Accordingly, the No Action alternative does not meet the purpose and need for action.

**Affected Environment and Environmental Consequences**

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

<table>
<thead>
<tr>
<th>Resource / Issue</th>
<th>Proposed Action</th>
<th>No Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aesthetics</strong></td>
<td>Short-term, direct, less-than-significant adverse impacts during construction due to the use and presence of heavy construction equipment for grading. Direct, long-term, moderately beneficial aesthetic impact from the expansion of the park-like setting through the property.</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Air Quality</strong></td>
<td>Short-term, direct, negligible, adverse impact from construction vehicle emissions and dust generation. Long-term, direct, negligible adverse impact from increased visitors and maintenance activities during operation.</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Cultural Resources</strong></td>
<td>No adverse effect on known archaeological or above-ground resources. Long-term, direct, less-than-significant adverse levels due to inadvertently encountering potentially unknown cultural resources during construction of future expansion phases.</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Geology, Topography, and Soils</strong></td>
<td>Short-term, direct, negligible adverse impact on geology due to grading. Long-term, less-than-significant adverse impacts on topography due to grading for burial areas and roads. Short-term, direct, less-than-significant adverse impact on soils due to potential erosion during construction; negligible adverse impact during operation.</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Hydrology and Water Quality</strong></td>
<td>Short-term, direct, less-than-significant adverse impact on surface water during construction from potential sedimentation of run-off, and negligible impact during operation. Short-term, direct, negligible adverse impact on groundwater during construction; long-term, direct, negligible impacts during operation.</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Wildlife and Habitat</strong></td>
<td>Short-term, less-than-significant adverse impacts on terrestrial wildlife species and on the quality of the habitat at the site due to disturbance during construction. No impact to listed species due to avoidance measures.</td>
<td>None.</td>
</tr>
<tr>
<td>Resource / Issue</td>
<td>Proposed Action</td>
<td>No Action</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Noise</td>
<td>Short-term, direct, less-than-significant adverse impact from construction noise on visitors and off-site receptors. Short-term, direct, negligible adverse impacts from rifle salutes and maintenance activities during operation.</td>
<td>None.</td>
</tr>
<tr>
<td>Land Use</td>
<td>No impact.</td>
<td>None.</td>
</tr>
<tr>
<td>Floodplains and Wetlands</td>
<td>Construction of the Phase 3 expansion avoids wetlands and would have no impact. Construction of potential future expansions in the southern area would have long-term, direct, minor adverse impact if a 0.19-acre wetland is converted up to a 1.5-acre potential irrigation pond, and from potential stormwater impacts. Operation would have long-term, direct, negligible impacts due to potential stormwater impacts and routine maintenance activities. NCOTA is outside of 100- and 500-year floodplains; no impact.</td>
<td>None.</td>
</tr>
<tr>
<td>Socioeconomics</td>
<td>Short-term, direct, less-than-significant beneficial impact on the local economy from construction employment and material purchases. Long-term, direct and indirect, negligible beneficial impact during operations from increased visitors, potential increase in spending on area services, and minimizes visitors’ travel costs.</td>
<td>None.</td>
</tr>
<tr>
<td>Community Services</td>
<td>Long-term, direct, significant beneficial impact due to the increased burial capacity and longevity of NCOTA.</td>
<td>Long-term, direct, significant adverse impact due to lack of burial opportunities at NCOTA or within 75-miles of southwestern Pennsylvania.</td>
</tr>
<tr>
<td>Solid and Hazardous Materials</td>
<td>Short-term, direct, negligible adverse impacts from generation of construction debris. Long-term, direct, negligible adverse impact from continued generation of operational solid wastes, soils, and herbicide/pesticide applications.</td>
<td>None.</td>
</tr>
<tr>
<td>Transportation and Parking</td>
<td>Short-term, direct, negligible adverse impact on transportation and parking during the construction phase. Long-term, direct, negligible beneficial impact from expanded parking within NCOTA and improved safety due to widening and flattening of Morgan Road.</td>
<td>None.</td>
</tr>
<tr>
<td>Utilities (potable water only)</td>
<td>No potable water consumed during construction; therefore, no adverse impact. Volume of potable water for irrigation of Phase 3 expansion would not decrease service quality to other customers. Coordination with potable water utility would be completed prior to operation of potential future expansion phases in the southern portion of the property to ensure potable water utilization would not have a significant adverse impact on service quality to others.</td>
<td>None.</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>No impact; no environmental justice issues or communities within area.</td>
<td>None.</td>
</tr>
<tr>
<td>Potential for Generating Substantial Controversy</td>
<td>The community is anticipated to expect that the VA would expand NCOTA to provide sufficient burial capacity for the next several decades. Therefore, implementing the Proposed Action would not generate substantial controversy.</td>
<td>Not expanding NCOTA conflicts with community expectations and therefore would generate substantial negative controversy.</td>
</tr>
</tbody>
</table>
The impacts from the Proposed Action, when considered on a cumulative basis with impacts from past projects and probable future projects at and in the vicinity of the NCOTA, still remain at less-than-significant adverse levels for all of 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 (decreased longevity of the NCOTA due to the lack of burial opportunities at a National Cemetery within a reasonable distance from southwestern Pennsylvania). Therefore, the VA has selected the Proposed Action as the preferred action alternative.

**Agency and Public Involvement**

Comments received during the 30-day comment period on the Draft SEA will be documented in and considered during preparation of the Final SEA.
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ACHP</td>
<td>Advisory Council on Historic Preservation</td>
</tr>
<tr>
<td>ACS</td>
<td>American Community Survey</td>
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<tr>
<td>AIRFA</td>
<td>American Indian Religious Freedom Act</td>
</tr>
<tr>
<td>amsl</td>
<td>Above Mean Sea Level</td>
</tr>
<tr>
<td>APE</td>
<td>Area of Potential Effect</td>
</tr>
<tr>
<td>AQCR</td>
<td>Air Quality Control Region</td>
</tr>
<tr>
<td>ARPA</td>
<td>Archaeological Resources Protection Act</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Testing and Materials</td>
</tr>
<tr>
<td>BHP</td>
<td>Bureau of Historic Preservation</td>
</tr>
<tr>
<td>BLS</td>
<td>Bureau of Labor Statistics</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practice</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CEC</td>
<td>Civil &amp; Environmental Consultants, Inc.</td>
</tr>
<tr>
<td>CEQ</td>
<td>Council on Environmental Quality</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>dBA</td>
<td>A-weighted decibel</td>
</tr>
<tr>
<td>DEP</td>
<td>Department of Environmental Protection</td>
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<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EISA</td>
<td>Energy Independence and Security Act</td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
</tr>
<tr>
<td>ERNS</td>
<td>Emergency Release Notification System</td>
</tr>
<tr>
<td>FEIS</td>
<td>Final Environmental Impact Statement</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
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<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>GCR</td>
<td>General Conformity Rule</td>
</tr>
<tr>
<td>GPR</td>
<td>Ground Penetrating Radar</td>
</tr>
<tr>
<td>gsf</td>
<td>gross square feet</td>
</tr>
<tr>
<td>LUST</td>
<td>Leaking Underground Storage Tank</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
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<tr>
<td>NAGPRA</td>
<td>Native American Graves Protection and Repatriation Act</td>
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<tr>
<td>NCA</td>
<td>National Cemetery Administration</td>
</tr>
<tr>
<td>NCOTA</td>
<td>National Cemetery of the Alleghenies</td>
</tr>
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<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
</tr>
<tr>
<td>NO2</td>
<td>Nitrogen Dioxide</td>
</tr>
<tr>
<td>NOA</td>
<td>Notice of Availability</td>
</tr>
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<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
</tr>
<tr>
<td>NOI</td>
<td>Notice of Intent</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
</tr>
<tr>
<td>NPS</td>
<td>National Park Service</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
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</tr>
<tr>
<td>NRCS</td>
<td>Natural Resources Conservation Service</td>
</tr>
<tr>
<td>NRHP</td>
<td>National Register of Historic Places</td>
</tr>
<tr>
<td>NWI</td>
<td>National Wetlands Inventory</td>
</tr>
<tr>
<td>O₃</td>
<td>Ozone</td>
</tr>
<tr>
<td>OCFM</td>
<td>VA Office of Construction and Facility Management</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PA</td>
<td>Pennsylvania</td>
</tr>
<tr>
<td>Pb</td>
<td>Lead</td>
</tr>
<tr>
<td>PEM</td>
<td>Palustrine Emergent</td>
</tr>
<tr>
<td>PFO</td>
<td>Palustrine Forested</td>
</tr>
<tr>
<td>PGC</td>
<td>Pennsylvania Game Commission</td>
</tr>
<tr>
<td>PHMC</td>
<td>Pennsylvania Historical and Museum Commission</td>
</tr>
<tr>
<td>PJD</td>
<td>Preliminary Jurisdictional Determination</td>
</tr>
<tr>
<td>PM</td>
<td>Particulate Matter</td>
</tr>
<tr>
<td>PNDI</td>
<td>Pennsylvania Natural Diversity Inventory</td>
</tr>
<tr>
<td>PTC</td>
<td>Pennsylvania Turnpike Commission</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>RCRIS</td>
<td>Resource Conservation and Recovery Information Site</td>
</tr>
<tr>
<td>ROD</td>
<td>Record of Decision</td>
</tr>
<tr>
<td>SEA</td>
<td>Site-Specific Environmental Assessment</td>
</tr>
<tr>
<td>SESC</td>
<td>Soil Erosion and Sedimentation Control</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Office</td>
</tr>
<tr>
<td>SHWS</td>
<td>State Hazardous Waste Site reports</td>
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<tr>
<td>SIP</td>
<td>State Implementation Plan</td>
</tr>
<tr>
<td>SO₂</td>
<td>Sulfur Dioxide</td>
</tr>
<tr>
<td>SR</td>
<td>State Route</td>
</tr>
<tr>
<td>SWMF</td>
<td>Stormwater Management Facility</td>
</tr>
<tr>
<td>TSD</td>
<td>Treatment, Storage, and Disposal</td>
</tr>
<tr>
<td>U.S.</td>
<td>United States</td>
</tr>
<tr>
<td>USACE</td>
<td>U. S. Army Corps of Engineers</td>
</tr>
<tr>
<td>USC</td>
<td>United States Code</td>
</tr>
<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
</tr>
<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
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<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Services</td>
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<td>USGS</td>
<td>United States Geological Survey</td>
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<tr>
<td>UST</td>
<td>Underground Storage Tank</td>
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<tr>
<td>VA</td>
<td>Veterans Affairs</td>
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<tr>
<td>WCCD</td>
<td>Washington County Conservation District</td>
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Chapter 1. Introduction

1.0 INTRODUCTION

The U.S. Department of Veterans Affairs (VA) National Cemetery Administration (NCA) honors Veterans and their families with final resting places in National Shrines and with lasting tributes that commemorate their service and sacrifice to the nation. NCA maintains approximately 3.3 million gravesites at 135 National Cemeteries and 33 soldiers’ lots and monument sites in 40 states and Puerto Rico. VA’s Office of Construction and Facility Management’s (OCFM) mission is to advance the VA’s mission in support of the nation’s Veterans by planning, designing, constructing, and acquiring major facilities, and setting design and construction standards. This Site-Specific Environmental Assessment (SEA) evaluates the proposed Master Plan for near-term and long-term expansion of the National Cemetery of the Alleghenies (NCOTA), located at 1158 Morgan Road, Bridgeville, Pennsylvania, 15017 (Figure 1). The NCOTA is located 20 miles southwest of downtown Pittsburgh in the northern portion of Washington County.

1.1 Background and Existing Site Details

The NCOTA covers an approximately 292-acre area adjacent to Interstate 79 (I-79). Morgan Road passes through the approximate center of the property, dividing it into the “northern” and “southern” portions.

In June 2001, the NCA completed an Environmental Assessment (EA) to analyze the potential environmental and socioeconomic impacts of a proposed action to select the approximately 292-acre site and the reasonably foreseeable impacts associated with the phased construction and operation of a new national cemetery on the site (VA, 2001). The 2001 EA concluded that no significant impacts on the human environment would result, and, as a result, the VA issued a Finding of No Significant Impact (FONSI). Subsequently, the VA purchased the approximately 292-acre site (consisting of two parcels) from private citizens in December 2002 and March 2003.

The site is now the NCOTA. The initial cemetery development phase (Phase 1) began in 2004-2005 in the northern portion of the property, north of Morgan Road. The Phase 1 development included the removal of existing structures from the northern and southern areas, and the construction in the northern area of an 11,400-gross-square-foot (gsf) administration/maintenance building and a 3,100-gsf public information center. In addition, the development included an entrance feature, a flag/assembly area, and two committal service shelters, each of which was approximately 600-gsf and included a utility and storage closet. Related site work including grading, internal roads, parking, and utilities was accomplished in Phase 1. During Phase 1, approximately 3,000 columbarium niches and 10,000 gravesites were constructed. These gravesites included pre-placed crypts and standard gravesites, depending upon site geology and the ability to excavate gravesites to a required depth. Gravesite sections were typically developed in 1- to 2-acre plots, so that the scale is more personal. To the degree possible, existing trees and vegetation were used as natural boundaries between these gravesite sections. Construction of these facilities and related site work (clearing, grading) resulted in disturbance over the majority of the northern portion of the property. To date, the southern portion of the site (south of Morgan Road) has not been developed by the VA.

Three access roads were constructed, with the main entrance road from Morgan Road designated for visitors and funerals. In addition, there is a secondary entrance road to the portion of the cemetery located on the opposite side of Morgan Road from the main entrance. The third access road is a service road from Morgan Road to the portion of the Morgan property located east of I-79.
The NCOTA accepted the first burials in August 2005, with the formal dedication taking place on October 9, 2005 (VA, 2018b).

Currently, on average, eight burials are performed per day, with a greater number of burials performed on Mondays and Fridays.

1.2 Problem Statement

The 2001 EA concluded that by the planning year 2030, the cumulative interments at NCOTA would be approximately 48,729 (VA, 2001). The completion of the Phase 1 cemetery provided approximately 13,000 interments.

Accordingly, in 2007 the VA initiated an extensive master planning process to determine the optimal configuration for potential future expansion phases within the remainder of the NCOTA property. In 2015, the VA considered implementing a Phase 2 expansion in the northern portion of the property and contiguous to the Phase 1 cemetery. A Supplemental Site-Specific EA (“2015 EA”) was prepared to analyze and evaluate the potential effects of this proposed expansion, and in 2015 the VA concluded that the proposed Phase 2 expansion would have no significant adverse impacts (VA, 2015). However, the Phase 2 expansion was not immediately implemented because the VA determined that the design for the proposed Phase 2 expansion required modifications necessary to better align with the natural topography and physical features within the northern portion of the NCOTA.

As a result, in 2018 the VA completed a new Master Plan (2018 Master Plan) which detailed the design for the proposed expansion in the northern portion of the property (now called the “Phase 3 expansion”), and for up to 10 potential future expansion phases in the approximately 105-acre southern portion of the property (Southern Expansion) where, to date, no cemetery development has occurred (see Figures 2A and 2B). Under the 2018 Master Plan, the proposed Phase 3 expansion would provide approximately 13,500 new burial areas adjacent to the Phase 1 cemetery in the northern portion of NCOTA and minor infrastructure improvements, while up to 10 potential future development phases in the southern portion of NCOTA would provide a total of approximately 50,900 new burial areas over the course of full buildout. In total, the 2018 Master Plan would provide approximately 64,400 additional casket, columbarium, and in-ground cremation sites; new roadways connecting existing and new burial areas; and improvements to other infrastructure including maintenance and stormwater and irrigation management systems. A summary of the major elements of the 2018 Master Plan is provided in Table 1.

Presently, in Pennsylvania, the nearest National Cemeteries to southwestern Pennsylvania include the Indiantown Gap National Cemetery in Annville (approximately 250 miles east) and the Philadelphia National Cemetery in Philadelphia (approximately 325 miles east). The nearest National Cemeteries outside of Pennsylvania are the West Virginia National Cemetery in Grafton, West Virginia (approximately 90 miles south); the Ohio Western Reserve National Cemetery in Seville, Ohio (approximately 100 miles northwest); and the Winchester National Cemetery in Winchester, Virginia (approximately 130 miles south). The National Cemeteries in Pennsylvania and beyond are not located within a reasonable distance of Veterans and their families in the southwestern Pennsylvania region.
Based on this information, the VA determined that if the longevity of the NCOTA is not extended by expanding burial capacity beyond the current Phase 1 cemetery, then 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 southwestern Pennsylvania region.

Therefore, the VA has concluded that a Proposed Action is necessary to address this problem.

### 1.3 Purpose and Need for the Proposed Action

The **purpose** of the Proposed Action is to enable the existing NCOTA to continue to provide burial services for eligible Veterans in southwestern Pennsylvania.

The Proposed Action is **needed** to allow the NCA to continue meeting its goal of providing eligible Veterans with reasonable access to VA burial options in southwestern Pennsylvania.

Without the Proposed Action, the longevity of the NCOTA 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 southwestern Pennsylvania.

Accordingly, the VA has determined that implementing the 2018 Master Plan as the Proposed Action would effectively address the problem and meet the purpose and need described above. A detailed description of the Proposed Action and alternatives is presented in Section 2.0.

**Table 1. Summary of 2018 Master Plan Improvements**

<table>
<thead>
<tr>
<th>Expansion Phase</th>
<th>Details of Proposed Expansion Development Activity</th>
</tr>
</thead>
</table>
| Phase 3 Expansion     | • The construction of additional burial sections intended to provide approximately 10 years of burial capacity. This phase would develop approximately 25 acres of land proximate to existing Phase 1 burial areas and infrastructure. The Phase 3 expansion would provide approximately 13,500 gravesites, including casket and cremain sites.  
• A grade-separated connector drive (bridge over Morgan Road) would be constructed along with a 1,500-foot long semi-circular road in the southern portion of the property. This would be used by staff, maintenance personnel, and visitors to safely access potential future southern burial sections across Morgan Road.  
• Stormwater and irrigation system improvements. |
| (25 acres)            |                                                                                                                                                                                  |
| Southern Expansion    | • Up to 10 expansion phases providing approximately 100 years of burial capacity on existing, undeveloped land south of Morgan Road. Multiple phases would develop a total of approximately 80 acres of the 105-acre area, providing approximately 50,900 gravesites.  
• A new southern expansion entrance along Morgan Road, with proper signage and furnishings throughout the expansion.  
• New access roads, stormwater management systems, and expanded irrigation system. |
| (80 acres)            |                                                                                                                                                                                  |
Figure 1. Site Location
Figure 2A. Proposed Action: 2018 Master Plan for Phase 3 and Potential Future Expansion Phases
Figure 2B. Proposed Action: 2018 Master Plan Phasing Detail
1.4 Regulatory Requirements

The National Environmental Policy Act (NEPA) of 1969 established the national policy for the environment and for the Council on Environmental Quality (CEQ), and provides for the consideration of environmental issues in federal agency planning and decision-making. To implement the NEPA policies, CEQ promulgated the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508, referred to as the CEQ Regulations).

The VA’s procedures to comply with NEPA are set forth in 38 CFR Part 26, Environmental Effects of the Department of Veterans Affairs Actions. These regulations establish the VA policies and responsibilities to integrate environmental considerations early in the decision-making process. Instructions on preparing NEPA documentation and carrying out public and agency coordination are provided in the VA’s NEPA Interim Guidance for Projects (VA, 2010).

These requirements specify that prior to taking action, the VA must evaluate the potential environmental impacts of VA facilities, operations, and related funding decisions. The evaluation of the potential environmental impacts of the proposed action and alternatives includes direct, indirect, and cumulative effects, as well as a qualitative and quantitative (where possible) assessment of the level of significance of these effects. Additionally, as required by NEPA and the implementing regulations from CEQ and VA, the alternative of taking no action is also evaluated, providing a baseline for comparison of potential impacts from the action alternative(s).

An EA provides a sufficient level of analysis and evidence to evaluate whether or not an action would cause a significant environmental impact. When the EA concludes there is no significant impact, the VA may issue a Finding of No Significant Impact (FONSI) (40 CFR Part 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 Part 1508.13). Conversely, when an action may have a significant adverse impact on the environment, the VA may consider issuing a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS).

1.5 Scope of the Analysis

This SEA has been prepared to analyze and evaluate the potential effects of the Proposed Action to implement the 2018 Master Plan for the NCOTA. Specifically, this SEA evaluates the potential environmental impacts from construction and operation of the proposed Phase 3 expansion and the potential future development phases for the southern area. Further details of the Proposed Action are provided in Section 2.0. It is noted that separate NEPA analyses would be performed prior to development of each potential future expansion phase in the southern area.

This SEA tiers to and updates the analyses and findings presented in the VA’s 2001 Final SEA for the initial siting, construction, and operation of the NCOTA (VA, 2001) and the Supplemental SEA for the previously proposed northern expansion (VA, 2015). 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 [SEA] 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, the 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.

Considering these regulations and guidance, land use/zoning was eliminated from in-depth analysis because potential impacts were considered negligible, nonexistent, and/or sufficiently addressed in the 2001 EA and therefore do not require further analysis in this SEA. Resource areas that are evaluated in further detail in this SEA include: aesthetics; air quality; cultural resources; geology, topography, and soils; hydrology and water quality; wildlife and habitat; noise; floodplains and wetlands; socioeconomics; community services; solid and hazardous materials; transportation and parking; utilities; environmental justice; and cumulative effects.

1.6 Decision Making

The VA, as a federal agency, is required to incorporate environmental considerations into its decision-making process for the actions it proposes to undertake. This is done according to the regulations and guidance identified in this Section 1.0. As such, this SEA provides the VA with the necessary analysis to address and support decision making for the Proposed Action and serves 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,
- Provide 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 the VA would commit to minimize environmental effects, as required under NEPA, its implementing regulations from CEQ (40 CFR Part 1500-1508) and VA (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—the VA should implement the Proposed Action including, as appropriate, measures to reduce adverse effects.
2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

NEPA, and the regulations of CEQ and VA for implementing NEPA, require that an EA include a brief discussion of all reasonable alternatives, to include at least the Proposed Action and the No Action alternative. Accordingly, this section 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

No reasonable alternatives that would adequately meet the purpose and need for action have been identified by the VA. Therefore, the alternatives evaluated in this SEA are the Proposed Action and No Action. The Proposed Action is described in detail in the following Section 2.2. The No Action alternative serves as the baseline for determining the significance of potential effects of the Proposed Action in relation to existing conditions. A description of the No Action alternative is provided in Section 2.3.

2.2 Proposed Action

Under the Proposed Action, the VA would implement potential expansions at NCOTA according to the 2018 Master Plan design (see Figures 2A and 2B). The Phase 3 expansion in the northern portion of the property would be constructed over the next two years and provide 13,500 new burial sites, while potential future expansion phases in the southern portion of the property would be constructed according to the design in the 2018 Master Plan; the need for future expansions would be evaluated by the VA every 8-10 years.

The Proposed Action for the Phase 3 expansion includes the following elements:

- Burial Expansion
  - To provide 10 years of service through the development of 25 acres of existing, undeveloped land to provide approximately 13,500 gravesites, including both casket and cremain sites in new burial sections. Specifically:
    - 5,800 Pre-Placed Crypts
    - 650 Oversized Pre-Placed Crypt Full Casket Gravesites
    - 650 In-Ground Traditional Full Casket Gravesites
    - 2,200 In-Ground Cremains
    - 4,224 Columbarium Niches

- Grade-Separated Connector Drive (Bridge)
  - Construction and operation of a grade-separated connector drive above Morgan Road, connecting the existing northern cemetery area to the proposed potential future cemetery in the southern portion of the property. This grade-separated connector drive would be used by staff, maintenance personnel, and visitors to safely access the southern burial sections across Morgan Road.
Chapter 2. Description of Proposed Action and Alternatives

- Semi-Circular Roadway
  - Construction of an approximately 1,500-foot long semi-circular roadway in the southern portion of the property (the northern end of the proposed semi-circular road would connect to the proposed bridge, and the southern end would connect to Morgan Road south of the proposed bridge). This will provide a two-way loop road within the northern-most valley to facilitate efficient circulation for staff and visitors.

- Roadway System Improvements
  - Repair, seal, and improve existing cemetery roadways, as needed.
  - Expand Honor Guard Parking at Committal Shelters One and Two to accommodate eight-to-ten cars at each location.
  - Expand cortege staging lanes at the Public Information Center.

- Upgrades to the Administration/Maintenance Complex
  - Add storage mezzanine at Maintenance Building.
  - Enclose walkway (non-climate controlled) between the Maintenance and Administration Facility.

The Proposed Action for up to 10 potential future expansion phases within the southern portion of the property would follow the design layout and avoidance measures specified in the 2018 Master Plan. It is important to note that separate NEPA-compliant analyses would be completed prior to constructing any of these potential future expansion phases. The following elements include:

- Burial Expansion
  - The construction and operation of additional burial facilities to provide approximately 100 years of capacity on existing, undeveloped land. Based on the 2018 Master Plan, full buildout would require development of approximately 80 acres of currently unimproved land to provide approximately 50,900 gravesites, including both casket and cremation sites in new burial sections.

- Roadway System
  - Construction of a roadway system on the southern portion of the property to allow access to various expansion phase areas.
  - Construction a secondary entrance and exit along the southern portion of Morgan Road.

- Irrigation System
  - Possible construction of up to a 1.5-acre stormwater retention pond to provide irrigation water.
  - Install irrigation system pump house and piping to support landscaped areas.
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 retaining conditions at NCOTA as they currently exist for the foreseeable future.

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

Under the No Action alternative, long-term, reasonable access to burial benefits would not be provided to the estimated 285,000 Veterans living in southwestern Pennsylvania and their families (U.S. Census Bureau, 2018a). As previously described, the nearest National Cemeteries are more than approximately 70 miles away from southwestern Pennsylvania. Therefore, Veterans and their families residing in southwestern Pennsylvania would be underserved once the NCOTA reaches full capacity in the near future. At that point, the VA would not comply with the requirements of the Service Members Civil Relief Act. Furthermore, due to the distances between homes and the burial sites, the No Action alternative would result in a hardship for the survivors attending the funerals and for grave visitations of deceased Veterans interred in other National Cemeteries. 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.

2.4 Alternatives Identified but Not Evaluated in Detail

During development of the 2018 Master Plan, several conceptual design alternatives were considered for the potential future expansion phases within the southern portion of the property to accomplish the 100-year plan to provide adequate burial for Veterans’ and their families (VA, 2018). These conceptual design alternatives included various alignments and phasing for burial areas, roadways, and irrigation systems, as depicted in Figure 3 and Figure 4.

These conceptual design alternatives did not utilize the southern area as efficiently or with fewer potential impacts (degree or intensity) compared to the select design presented in the 2018 Master Plan. Therefore, these conceptual design alternatives are not further evaluated in detail in this SEA.
Figure 3. Alternative 2 - Southern Expansion
Figure 4. Alternative 3 - Southern Expansion
3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Criteria for Analysis of Impacts

This section describes the existing conditions at NCOTA and presents an analysis of the potential environmental consequences of implementing the Proposed Action and the consequences of selecting the No Action alternative. Each alternative was evaluated for its potential impacts on physical, biological, and socioeconomic resources in accordance with CEQ guidelines at 40 CFR Part 1508.8.

The specific criteria for evaluating the potential environmental impacts of the Proposed Action and the No Action alternative are described in the following sections. The significance of an action is also measured in terms of its context and intensity. The context and intensity of potential environmental impacts are described in terms of duration, whether they are direct or indirect, the magnitude of the impact, and whether they are adverse or beneficial, as summarized in the following paragraphs:

**Short-term or long-term.** In general, short-term impacts are those that would occur only with respect to a particular activity, for a finite period, or only during the time required for construction or installation activities. Long-term impacts are those that are more likely to be persistent and chronic.

**Direct or indirect.** A direct impact is caused by an action and occurs around the same time at or near the location of the action. An indirect impact is caused by an action and might occur later in time or be farther removed in distance but still be a reasonably foreseeable outcome of the action.

**Less-than-significant (negligible, minor, moderate), or significant.** These relative terms are used to characterize the magnitude or intensity of an impact. Negligible impacts are generally those that might be perceptible but are at the lower level of detection. A minor impact is slight, but detectable. A moderate impact is readily apparent. Significant impacts are those that, in their context and due to their magnitude (severity), have the potential to meet the thresholds for significance set forth in CEQ regulations (40 CFR Part 1508.27) and, thus, warrant heightened attention and examination for potential means for mitigation to fulfill the policies set forth in NEPA. Significance criteria by resource area are presented in the following sections.

**Adverse or beneficial.** An adverse impact is one having unfavorable or undesirable outcomes on the man-made or natural environment. A beneficial impact is one having positive outcomes on the man-made or natural environment.

3.2 Resources Not Evaluated in this SEA

The VA determined that the land use/zoning and utilities technical resource areas were sufficiently analyzed in the Final EA for site selection (VA, 2001) and the 2015 Supplemental SEA for the northern expansion phase (VA, 2015); therefore, these resources do not warrant further analysis in this SEA. Additional rationale for excluding additional analysis of these topics is provided below:

- **Land use and Zoning** – In 2001, the Morgan family sold *Morgan Farms*, the property currently known as the NCOTA, to the VA (VA, 2001). The zoning designation was R1 (low-density residential) and agricultural land use. The property currently remains as R1 designation. Following this purchase by the VA, the land use designation was approved as a “conditional use” since Cecil Township does not have a zoning district designated
for a cemetery (VA, 2001). However, the “conditional use” was intended for use as a cemetery, and thus the zoning changed from agricultural to cemetery land use. The current land use designation for the NCOTA remains as conditional use and will remain in use for a cemetery through the implementation of the Proposed Action and for the foreseeable future while VA retains ownership of the property.

3.3 Aesthetics

3.3.1 Existing Environment

A combination of natural and built features influence and contribute to the aesthetic environment of an area. Natural features may include topography and vegetation, which themselves may have been altered over time by human action, while built features can include buildings and other constructed elements. Beneficial or adverse impacts may occur depending on how changes to the existing aesthetic environment are perceived by human receptors, which can include visitors and residents living adjacent to and in the vicinity of the area. Features surrounding the NCOTA that contribute to the visual character and scenic quality of the area include rolling hills, agricultural fields, forested areas and distinctive houses and barns. The vegetation is predominately pasture and cultivated fields.

The existing topography of the NCOTA consists of sloping hills ranging from 1,300 feet above mean sea level (amsl) at the highest point to 1,050 feet amsl at the lowest point. Topography is analyzed in further detail in Section 3.6.

The northern portion of the NCOTA property containing the Phase 1 cemetery has a park-like setting with professionally manicured grounds, winding interior roadways, and few small buildings with regionally-consistent architectural design. There are no designated wild and scenic rivers or scenic roadways at or in the vicinity of the NCOTA.

The southern portion of the NCOTA property (south of Morgan Road) generally has not been improved and is characterized as a pasture with rolling to steep hills. A small historical cemetery and a wetland/stream channel is present near Morgan Road. A satellite maintenance building is also present near the center of the southern portion of the property.

The NCOTA is visible along its eastern border to vehicles travelling on I-79. NCOTA is also visible along Morgan Road which bisects the property, and along County Lane Road, which is located along the northwestern border of the property.

The NCOTA is accessible to visitors from a formal main entrance located near the eastern end of Morgan Road, while staff use a maintenance entrance located to the west of the main entrance.

3.3.2 Environmental Consequences

3.3.2.1 Proposed Action

Construction. During construction of the Phase 3 expansion, construction-related equipment would be present on the northern portion of the property, and in the southern portion where the ring-road is proposed near Morgan Road. Construction would require the use and presence of heavy construction equipment used for grading burial sections, road construction, and other minor improvements. The heavy equipment phase of construction is anticipated to require no more than a total of 18 months and would not necessarily be 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 portion of the cemetery, particularly near the existing northern.
columbarium and committal shelter. However, the majority of the Phase 3 expansion would be located northeast of and generally out of view of the existing Phase 1 cemetery. Where construction activities would be visible to visitors within the Phase 1 cemetery, the construction contractor would erect temporary privacy fencing. Therefore, it is not anticipated that construction activities would disrupt ongoing memorial services within the Phase 1 cemetery.

The remainder of the potential future expansions would occur in the southern portion of the property. Construction would require heavy machinery for grading, earthwork, road construction, and crypt placement. Each development phase would permanently convert a portion of the unmanaged rural area to a National Shrine with manicured grounds having a park-like appearance. Additionally, each potential future expansion phase would be constructed away from the prior phase. This approach would minimize visual impacts to memorial services occurring at previously constructed burial areas. As needed, the construction contractor would erect temporary privacy fencing to further minimize potential adverse aesthetic impacts on visitors.

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 and Morgan Road which could lead to nuisance concerns about the construction activities at NCOTA. To minimize these potential adverse impacts, the construction contractor would implement industry-standard construction Best Management Practices (BMP) to limit fugitive dust generation and tracking of mud/dirt onto roadways. These BMPs include using water trucks for dust suppression, brushing dirt off construction vehicle tires before leaving the construction site, and installation of gravel pads at the construction exits to further prevent the tracking of dirt onto roadways. Additionally, land clearing and grading activities would occur only within the area designated for expansion for each specific phase, while all other potential future expansion areas would remain vegetated until the subsequent expansion. Following grading, the contractor would plant native, non-invasive, drought-tolerant vegetation on exposed soils. Furthermore, the 2018 Master Plan design limits or avoids clearing of existing trees along the property’s borders with private landowners and I-79, and avoids any clearing in the “natural preserve” area in the northern portion of the property. Retaining these wooded areas and the preservation area further minimizes the visual impact of construction activities to nearby residents and passersby.

These minimization measures and BMPs would ensure that Proposed Action construction activities would have a temporary short-term, direct, less-than-significant adverse impact on aesthetics.

**Operation.** Operation of the Phase 3 cemetery and potential future expansions in the southern portion of the property would provide direct, long-term, moderately beneficial aesthetic effects within the property. The Proposed Action would extend the NCOTA’ National Shrine appearance, with elements including professionally-maintained landscaped grounds, winding roadways, and retention of the natural undulating topography.

Operations within the expansion phases would include regularly scheduled professional landscape maintenance to ensure the upkeep of the park-like appearance of the cemetery grounds and associated physical infrastructure (e.g. roads, buildings). The maintenance would be conducted on a schedule to limit potential disruptions to committal services. No new night-time lighting would be required (current light is limited to illumination of the flagpole, the main entrance road, and security lighting around the buildings). These operational maintenance activities would not have an adverse impact on aesthetics.
Management practices to limit and further reduce the potential less-than-significant adverse impacts, and maintain the beneficial impacts, are summarized in Section 6.0 in this SEA.

3.3.2.2 No Action

Under the No Action alternative, no changes to the current aesthetic or visual character of the grounds would occur at the NCOTA.

Although the less-than-significant adverse impacts associated with construction of the Proposed Action would be avoided, the beneficial impacts to aesthetics associated with operations would not occur. Baseline conditions would remain, as described above.

3.4 Air Quality

3.4.1 Regional Climate

Weather and climate are important influences on air resources. The NCOTA is located in Washington County, approximately 115 miles south of Lake Erie and at an elevation of approximately 1,100 to 1,200 feet amsl. The average summer (July) temperature is 71.4°F with approximately 4.33 inches of rainfall, and in winter (January) is 27°F with approximately 2.86 inches of precipitation. July is the wettest month and November is the driest (average 2.66 inches of rainfall) (NOAA, 2018).

3.4.2 Air Quality Standards

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

Washington County, PA, is under the jurisdiction of the PA DEP Bureau of Air Quality Control Region (AQCR) 5 and USEPA Region 3. The USEPA defines AQCRs, which are used to evaluate compliance with the NAAQS per the CAA. The NCOTA property is specifically located within the Pittsburgh-Beaver Valley AQCR. Pennsylvania has developed Air Quality State Implementation Plans (SIP) that outline regulations, control measures, and strategies to achieve compliance with NAAQS (PA DEP, 2014).

The General Conformity Rule (GCR) (CAA Part 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 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. AQCRs 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.
The Pittsburgh-Beaver Valley AQCR is designated as in compliance for all criteria pollutants, with the exception of O₃ (marginal non-attainment) (USEPA, 2018). (The O₃ is likely attributed to vehicle emissions and other industrial processes within the more industrialized areas located within the AQCR.) Therefore, the potential emissions associated with the Proposed Action are required to be compared to the GCR de minimis thresholds. If the Proposed Action emissions are below the thresholds, then a full Conformity Determination is not required.

3.4.3 Existing Emissions Sources

Current emissions sources at NCOTA include petroleum-powered boilers that provide heat and air conditioning at the existing administration and maintenance buildings, and from gasoline- or diesel-fueled maintenance vehicles. No large sources of regulated air emissions exist on the property; therefore, the VA, as the owner of the property, is not required to have a Title V operating permit.

3.4.4 Sensitive Receptors

CEQ’s NEPA regulations require evaluation of the degree to which the proposed action affects public health (40 CFR Part 1508.27). Children, elderly people, and people with illnesses are especially sensitive to the effects of air pollutants; therefore, hospitals, schools, convalescent facilities, and residential areas are considered to be sensitive receptors for air quality impacts, particularly when located within 1 mile from the emissions source.

The nearest residential area is a low-density area that borders the northwest boundary of the property along County Line Road. There are no schools or hospitals within one mile of the NCOTA. There is one religious institution, “Lakeview Christian Life Church,” located 0.3 miles east of the NCOTA on Washington Pike in a medium-density residential neighborhood (NEPAssist, 2018).

3.4.5 Environmental Consequences

The impacts on Air Quality are determined based on any increases in emissions of regulated pollutants compared to the existing conditions. The impacts on air quality are evaluated on the basis of the Proposed Action exceeding the de minimis threshold established by USEPA in the GCR.

3.4.5.1 Proposed Action

Construction. Construction of the Phase 3 expansion would require up to approximately 18 months of earthwork activities associated with grading, roadway realignment and construction, and installation of pre-placed crypts. The construction of each of the next 10 potential future expansion phases within the 80-acre portion of the southern area would likely require 18-24 months to complete; each phase would cover approximately 8 acres.

Construction of any of the expansion phases would require heavy equipment with petroleum-burning engines, resulting in emissions of criteria pollutants (with the exception of lead, which is no longer an additive in these fuels). Construction would also generate particulate matter into the air from activities including grading of areas (exposing soils) and vehicles traveling on paved and unpaved surfaces. The amount of particulate emissions can be estimated from the amount of ground surface exposed, the type and intensity of activity, soil type and conditions, wind speed, and dust control measures used.
As described in Section 3.3, construction BMPs generally including water or chemical dust suppression would be implemented to reduce fugitive dust generation and prevent it from becoming airborne.

An estimate of the emissions associated with construction of the Phase 3 expansion was calculated and used as a conservative representative of emissions that would be emitted during each separate potential future expansion phase. These estimates are presented in the following tables in Section 3.4.

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 2. Total Suspended Particulates.

**Table 2. Total Suspended Particulates**

<table>
<thead>
<tr>
<th>Total Area (acres)</th>
<th>Exposed Area (acres)</th>
<th>Construction Duration (months)</th>
<th>Emission Factor (tons/acre/month)</th>
<th>Control Efficiency (%)</th>
<th>Total Suspended Particulate Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>25</td>
<td>18</td>
<td>1.2</td>
<td>80%</td>
<td>72</td>
</tr>
<tr>
<td>105</td>
<td>8 per phase (80 acres total)</td>
<td>18</td>
<td>1.2</td>
<td>80%</td>
<td>23</td>
</tr>
</tbody>
</table>

Non-road construction vehicles would emit criteria pollutants during construction of the Phase 3 expansion and each subsequent phase. Based on the Phase 3 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 390 weekdays (approximately 18 months). Emissions were estimated using “Off-Road – Model Mobile Source Emission Factors” from the California South Coast Air Quality Management District (SCAQMD, 2018) because Pennsylvania and federal USEPA emission factors are not available. Table 3 through Table 5 show estimated annual emissions, projected equipment operating hours, and equipment emission factors, while Table 5 shows the total emissions for the 18-month construction period. Emissions of Sulfur Oxides (SOx), lead, nitrous oxides (NOx), volatile organic compounds (VOC), and CO, are below *de minimis* thresholds; therefore, a General Conformity Determination is not required.

**Table 3. Estimated Total Operational Hours for Construction Equipment**

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Number</th>
<th>Hours/Day</th>
<th>Total Days</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grader</td>
<td>2</td>
<td>8</td>
<td>390</td>
<td>6,240</td>
</tr>
<tr>
<td>Tractors/Loaders/Backhoes</td>
<td>6</td>
<td>8</td>
<td>390</td>
<td>18,720</td>
</tr>
<tr>
<td>Rubber Tired Dozers</td>
<td>2</td>
<td>8</td>
<td>390</td>
<td>6,240</td>
</tr>
</tbody>
</table>
Table 4. SCAB Fleet Average Emission Factors (Diesel)

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Emission Factors¹</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROG (lb/hr)</td>
<td>CO (lb/hr)</td>
<td>NOx (lb/hr)</td>
<td>SOx (lb/hr)</td>
<td>PM (lb/hr)</td>
</tr>
<tr>
<td>Graders</td>
<td>0.0982</td>
<td>0.5787</td>
<td>0.6490</td>
<td>0.0015</td>
<td>0.0316</td>
</tr>
<tr>
<td>Tractors/Loaders/Backhoes</td>
<td>0.0472</td>
<td>0.3630</td>
<td>0.3019</td>
<td>0.0008</td>
<td>0.0160</td>
</tr>
<tr>
<td>Rubber Tired Dozers</td>
<td>0.2227</td>
<td>0.8388</td>
<td>1.6948</td>
<td>0.0025</td>
<td>0.0682</td>
</tr>
</tbody>
</table>

¹ – South Coast Air Basin (SCAQMD, 2018)

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

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

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Total Hours</th>
<th>ROG (total lbs)</th>
<th>CO (total lbs)</th>
<th>NOx (total lbs)</th>
<th>SOx (total lbs)</th>
<th>PM (total lbs)</th>
<th>CO2 (total lbs)</th>
<th>CH4 (total lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graders</td>
<td>6,240</td>
<td>612.77</td>
<td>3,611.09</td>
<td>4,049.76</td>
<td>9.34</td>
<td>197.36</td>
<td>829.920</td>
<td></td>
</tr>
<tr>
<td>Tractors/Loaders/Backhoes</td>
<td>18,720</td>
<td>883.58</td>
<td>6,795.36</td>
<td>5,651.57</td>
<td>14.51</td>
<td>299.11</td>
<td>1,250,496</td>
<td></td>
</tr>
<tr>
<td>Rubber Tired Dozers</td>
<td>6,240</td>
<td>1,389.65</td>
<td>5,234.11</td>
<td>10,575.55</td>
<td>15.30</td>
<td>425.62</td>
<td>1,491,360</td>
<td></td>
</tr>
<tr>
<td>Total Pounds</td>
<td>--</td>
<td>2,886.00</td>
<td>15,640.56</td>
<td>20,276.88</td>
<td>39.14</td>
<td>922.09</td>
<td>3,571,776</td>
<td></td>
</tr>
<tr>
<td>Total Tons</td>
<td>--</td>
<td>1.44</td>
<td>7.82</td>
<td>10.14</td>
<td>0.02</td>
<td>0.46</td>
<td>1,786</td>
<td></td>
</tr>
<tr>
<td>Emissions (tons/year)</td>
<td>--</td>
<td>1.3505</td>
<td>7.3190</td>
<td>9.4885</td>
<td>0.0183</td>
<td>0.4315</td>
<td>1671.408</td>
<td></td>
</tr>
<tr>
<td>de minimis level¹ (tons/year)</td>
<td>50/100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

¹ – USEPA, 2018 (General Conformity De Minimis Table)
NA – Not applicable. CO2 is not a priority pollutant; de minimis level is not required or established. Information provided for informative purposes only.

As shown in Table 5, construction emissions associated with the Phase 3 expansion, the largest of all of the proposed phases under the Proposed Action, would be below the General Conformity de minimis thresholds. Likewise, each of the subsequent potential future expansion phases, which are similar to the Phase 3 expansion, would not exceed the de minimis thresholds either.

Construction of expansion areas is not anticipated to require importing or exporting fill. Transporting fill can often require hundreds or thousands of truck trips to and from a construction site. Therefore, without a need to transport fill, fewer on-road construction vehicles would travel to and from the expansion areas. These on-road vehicles would be associated with delivering construction materials (stone, asphalt, concrete) to the expansion areas. These on-road vehicle activities would have a negligible contribution to the overall emissions during construction.

To further minimize construction-related air emissions impacts, the following BMPs would be implemented in addition to those previously mentioned in Section 3.2:

- Utilize appropriate construction scheduling (avoid earthwork during extremely windy and dry periods).
- Stabilize exposed soil with vegetation or mulching to minimize erosion and potential dust generation.
- Construction vehicles traveling on paved roads within and outside of the NCOTA would follow posted speed limits. This would minimize dust generated by vehicles and equipment on paved surfaces.

- On unpaved surfaces at the site, vehicle speeds will be maintained at or below 5 miles per hour to prevent dust generation of any exposed soil. Additionally, should any vehicles transport soil from one area of the property to another, the soil will be covered with haul tarps.

- Visually monitor construction activities on a daily basis, and particularly during extended periods of dry weather; implement additional dust control measures as needed.

Management practices to reduce potential adverse impacts are summarized in Section 6.0 in this SEA.

**Operation.** Operational sources of air emissions would include visitors’ vehicles and the NCOTA maintenance equipment (mowers, backhoes, power washers, etc.). The Proposed Action would result in an increase in visitor vehicle traffic and maintenance equipment operations with each new expansion phase. This increase in vehicle volume and equipment usage would lead to a negligible increase in emissions. To further minimize emissions from operational maintenance activities, the maintenance equipment would be kept in good working order.

Operation of the Proposed Action would extend the longevity of the NCOTA, which would increase visitor traffic. While emissions from visitor traffic would marginally increase in the immediate area of NCOTA, these visitors and families would not be required to travel the longer distances to reach other National Cemeteries outside of the southwestern Pennsylvania region, as they would under the No Action alternative.

Therefore, operation of the Proposed Action would result in long-term, direct, negligible adverse impacts on air quality.

**3.4.5.2 No Action**

Under the No Action alternative, there would be no short-term changes in air quality compared to current conditions. However, emissions associated with visitors and families would begin to increase once capacity was reached within the Phase 1 cemetery at NCOTA, as these groups would be required to travel greater distances to reach a National Cemetery outside of the southwestern Pennsylvania region.

**3.5 Cultural Resources**

**3.5.1 Existing Environment**

Section 106 and Section 110 of the *National Historic Preservation Act of 1966*, as amended (NHPA) (Pub. L. 89-655, 16 USC 470 et seq.), ensures that federal agencies consider cultural resources, defined as any prehistoric or historic district, site, building, structure, or object eligible for inclusion on the National Register of Historic Places (NRHP), in their proposed programs, projects, and actions prior to initiation.

A 2003 Phase I Cultural Resources Survey and a 2004 Phase II Archaeological National Register Evaluation have been previously conducted for the entire NCOTA property, inclusive of the Proposed Action expansion areas. The goals of these studies were to: (1) determine the presence or absence of previously identified archaeological or historic architectural resources in the...
project’s area of potential effect (APE); (2) identify in preliminary fashion the presence of any historic architectural resources within the APE that are potentially eligible for inclusion in the NRHP; and (3) establish the potential of the project APE to contain archaeological sites not previously identified. All work was performed pursuant to the NHPA and the ACHP’s “Protection of Historic Properties” (36 CFR Part 800). This work was also conducted pursuant to the PHMC, Bureau of Historic Preservation (BHP) Guidelines for Archaeological Investigations (1991), and the Pennsylvania History Code (37 Pa. C.S.A. Section 101 et seq.).

The 2003 Phase I investigation consisted of an examination of all documents for the project tract and adjacent areas on file at the Pennsylvania Historical and Museum Commission’s (PHMC) SHPO and the Carnegie Museum of Natural History. The Phase I investigation methodology included surface surveillance, ground penetrating radar (GPR), surface collection, and the excavation of shovel test pits.

Background research conducted in association with the Phase I investigation revealed two historic properties that are over 50 years old: the William D. Morgan Farmstead and the Robert L. Morgan Farmstead (both determined not eligible for the NRHP); and two previously recorded archaeological sites: the Morgan Site [36WH417], a prehistoric archaeological site of unknown cultural affiliation; and the Tombstone Site [36WH153], a small, 1782 historic family cemetery with a prehistoric component located approximately 250-feet south of Morgan Road (see Figure 5).

The field survey for the 2003 Phase I investigation identified six cultural resources: the two previously recorded historic farmsteads; the two previously recorded archaeological sites (36WH153; 36WH417); and two newly identified prehistoric archaeological sites (36WH1371; 36WH1372). During the 2003 Phase I investigation, the Tombstone Site (36WH153) was identifiable by four inscribed granite monuments on a plot that measured approximately 66 feet by 66 feet. The inscriptions on the granite monuments identify a total of 64 individuals who were interred there between 1787 and 1836. Based on the results of the GPR, a high probability exists that human burials are located beyond the boundaries marked by the granite markers. The GPR identified an area of disturbance of irregular shape measuring 150 feet by 150 feet (VA, 2015). The VA excluded the Tombstone Site (36WH153) from all future ground disturbing activities and stated this commitment, which was subsequently acknowledged and agreed upon by the PHMC/BHP in a letter dated December 16, 2003 (VA, 2015). Accordingly, the 2018 Master Plan continues to adhere to this commitment by including a 75-foot setback from the Tombstone Site boundary to avoid disturbance to potential previously undocumented gravesites associated with this family cemetery (see Figure 6).

The 2004 Phase II Archaeological National Register Evaluation was conducted to evaluate the NRHP eligibility for these sites. Based on the Phase II Archaeological Evaluation, the Morgan Site (36WH417), Morgan #2 Site (36WH1371) and Morgan #3 Site (36WH1372), were determined not to be eligible for listing on the National Register for Historic Places. No further work was recommended (VA, 2015). The PHMC/BHP concurred in a letter dated October 13, 2004, that the three sites were not eligible for listing on the NRHP, and that no further archaeological work was necessary.

Additional background research conducted in May 2018 in support of the current Proposed Action revealed no additional cultural resources have been recorded on the property since the 2003 Phase I Archaeological Survey or the Phase II Archaeological Evaluation. Based on this information,
the VA concluded that the Proposed Action would have no adverse effect on historic properties. The VA requested concurrence from the SHPO in a letter dated October 11, 2018. On November 21, 2018, the SHPO concurred that the Proposed Action will have no adverse effect on archaeological or above-ground resources. Copies of this correspondence are included in Appendix B.

Figure 5. Tombstone Site (36WH153) Location
Figure 6. Proposed Action: 2018 Master Plan Detail for the Tombstone Site and Setback
Native American Resources and Consultation.

For all federally proposed actions, federal agencies are required to consult with federally-recognized Native American Tribes in accordance with NEPA, the NHPA, the Native American Graves Protection and Repatriation Act (NAGPRA), Executive Order (EO) 13007, Indian Sacred Sites, and EO 13175, Consultation and Coordination with Indian Tribal Governments. Based on a review of the U.S. Department of the Interior Bureau of Indian Affairs, there are no federally-recognized Native American Tribes in Pennsylvania. However, although not required to, during the prior EAs (VA, 2001; VA, 2015), the VA contacted state and local Native American tribes having potential interest in the project area.

During the preparation of the 2015 SEA, the Delaware Tribe of Indians concurred that the previously identified Tombstone Site should be avoided. Furthermore, they concurred that the “project site” (the entire NCOTA property) had been extensively disturbed and that the potential for disturbing additional cultural resources was low, and they therefore had no objections to the project as it was proposed in 2015 (VA, 2015). The Delaware Tribe of Indians stated that if any archaeological remains (artifacts, subsurface features, etc.) were discovered during the construction process, construction would be halted until an archaeologist can view and assess the findings. Furthermore, if any human remains were accidentally unearthed during the course of the project, development would immediately cease and the Delaware Tribe of Indians would be informed of the inadvertent discovery. The VA concurred with this statement as part of the 2015 Final SEA and FONSI (VA, 2015). As previously stated, the 2018 Master Plan takes into account the Tombstone Site and includes a 75-foot setback from the private cemetery boundary to avoid disturbance to potential previously undocumented gravesites associated with this family cemetery. As such, the VA has concluded further consultation regarding the Proposed Action is not warranted.

Additionally, as noted in the prior EAs (VA, 2001; VA, 2015), no Traditional Cultural Properties or Native American sacred places are currently known to exist within the NCOTA property (VA, 2001; VA, 2015).

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

Construction and Operation. Based on the low probability of cultural resources existing at the property, and considering the results of the Phase I Cultural Resources Survey and the Phase II Archaeological Evaluation, the VA does not anticipate that any significant cultural resources exist. No known cultural resource sites are located within the specific construction footprint of the Phase 3 expansion area, and the area does not contain any locations of high elevation or undisturbed locations with moderate-to-high potential for cultural resources. The Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation confirmed based on a review of survey files, which include both archaeological sites and standing structures, that there are no National Register eligible or listed historic or archaeological properties in the area of this property.

The design of the potential future expansion phases in the southern portion of the property entirely avoids the private cemetery (Tombstone Site) and includes an additional 75-foot setback around its perimeter. Therefore, the VA concluded that the Proposed Action would have no adverse effect on cultural resources. As previously discussed, the SHPO concurred with this finding in a letter to the VA dated November 21, 2018 (a copy of the correspondence is provided in Appendix B).
However, some potential exists for disturbance of potentially unknown archaeological resources during future construction and excavation actions. To minimize impacts to otherwise unknown resources that may be uncovered during construction, the VA would comply with the NHPA, Archaeological Resources Protection Act of 1979 (ARPA), NAGPRA, American Indian Religious Freedom Act (AIRFA), 36 CFR Part 79, and EO 13007.

Additionally, the VA would implement an “Inadvertent Discovery” plan. 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 during construction or operation of the expansion areas, the VA would cease all activities involving subsurface disturbance in the vicinity of the discovery. Should human remains or other cultural items, as defined by NAGPRA, be discovered during project construction, the construction contractor would immediately cease work until the VA, a qualified archaeologist, the Delaware Tribe, and the SHPO, are contacted to properly identify and appropriately treat discovered items in accordance with applicable state and federal law(s).

Implementation of these measures would ensure that potential impacts on cultural resources are maintained at long-term, direct, less-than-significant adverse levels.

3.5.2.2 No Action

The No Action Alternative would result in no impact on cultural resources because expansion would not occur, leaving potential unknown cultural resources undisturbed.

3.6 Geology, Topography, and Soils

This section presents an overview of the geology, topography, and soils encompassing the proposed expansion area; this encompassing area is defined as the “Project Study Area” in this section. Additional descriptions of these resources can be found in the 2001 EA, which presents additional background information on the geology, topography, and soils at the NCOTA, as well as analysis of impacts and BMPs associated with site selection and potential full buildout (VA, 2001). Updated information is presented below, where applicable.

3.6.1 Existing Environment

Geology

The NCOTA property is located in an area that has a history of subsurface coal mining, which increases the risk of mine subsidence. However, no indications of subsurface mine subsidence were found during a survey for subsidence at the property, and future risks associated with mining were determined to be minimal (VA, 2001). Additionally, the gently sloping terrain of the property further reduces future subsidence risks, which increase with steep topography.

Historical subsurface coal mining can also increase hazards related to landslides. Earthflow and slumping are two legacy issues from mining in Washington County. However, the property was found to lack the primary contributing factors related to mining-related landslides, including steeply sloping terrain, barren soil, and exposed bedrock (VA, 2001).

Additional geotechnical information about the property was obtained during geotechnical investigations completed in 2014 in the northern area, and in October 2017 in the southern area. The boring information indicated that bedrock, typically encountered as weathered shale, was present at depths as shallow as approximately 5-feet bgs, with auger refusal (likely representing competent bedrock) at depths ranging from approximately 8- to 72-feet bgs.
Sinkholes can be common where subsurface rock formations are comprised of limestone, carbonate rock, or other surfaces that can be dissolved by groundwater. According to the Pennsylvania Department of Conservation and Natural Resources shapefiles (PADCNR, 2009), there is no karst topography, sinkholes, or depressions within the proposed expansion areas. Additionally, the prior geotechnical investigations involving subsurface borings and test pits did not identify any karst or sinkholes.

**Topography**

The topography of the property features rolling hills, with slopes generally ranging from 2% to 15%, with few localized slopes of up to 33%. Section 10.6 (Grading Guidelines) from the latest NCA Design Guidelines (November 2016) requires that interment areas be located on slopes of 15% or less. These same design guidelines establish a maximum slope of 25% for mowed slopes.

The highest elevation is 1,303 feet above mean sea level (amsl) and the lowest elevation is 1,051 feet amsl (U.S. Geological Survey [USGS], 1985). The property generally slopes in a southeastern direction toward I-79. The topography across the northern portion of the property slopes downward from west to east, ranging from approximately 1280-1120 feet amsl, and slopes upwards north to south, ranging from approximately 1090-1200 feet amsl. The existing topography across the southern portion of the property slopes generally upward north to south, ranging from approximately 1,100-1,160 feet amsl, and slopes downward west to east, ranging from approximately 1,220-1,080 feet amsl.

**Soils**

Soil information was obtained from the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS, 2018). The Project Study Area includes soils of the Dormont-Culleoka association. These soils are generally moderately well drained to well drained, and moderately deep to deep-with-a-gently-sloping-to-steep topography. Dormont soils predominate on hillsides and have a seasonal high-water table depth of 2 to 2.5 feet. Culleoka soils predominate on ridges and hilltops and are generally deep and well drained. Based on the USDA-NRCS mapping, Dormont silt loam, 15 to 25 percent slopes (DoD), and Fluvaquents, loamy (Fa), are classified as hydric soils (Figure 7). Table 6 summarizes the acreage of the mapped soil units within the Project Study Area. A description of each mapped soil unit is provided in the following list.

- **Brooke silty clay loam (BoB):** The Brook series consists of moderately deep and well drained soils with slopes ranging from 3 to 8 percent. Brooke soils are found on hills. Parent material is clayey residuum weathered from limestone and shale. The available water to a depth of 60 inches in Brooke soils is low. There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria.

- **Culleoka channery silt loam (CaB, CaC, and CaD):** The Culleoka series consists of moderately steep, well drained soils with slopes ranging from 3 to 25 percent. Culleoka soils are found on hills in uplands. Parent material is fine-loamy residuum weathered from sandstone and shale. The available water to a depth of 60 inches in Culleoka soils is low. There is no zone of water saturation within a depth of 72 inches. These soils do not meet hydric criteria.

- **Dormont silt loam (DoB, DoC, and DoD):** The Dormont series consists of deep and moderately well drained soils with slopes ranging from 3 to 25 percent. Dormont soils are
found on hills in uplands. Parent material is fine-loamy residuum weathered from limestone, sandstone, and shale. The available water to a depth of 60 inches in Dormont soils is moderate. A seasonal zone of water saturation is at 31 inches during January through April. These soils do not meet hydric criteria.

- **Fluvaquents (Fa):** The Fluvaquents series consists of deep and poorly drained soils with slopes ranging from 0 to 3 percent. Fluvaquents soils are found on flood plains. Parent material is alluvium. The available water to a depth of 60 inches in Fluvaquents soils is moderate. A seasonal zone of water saturation is at 6 inches during January through May and October through December. These soils meet hydric criteria.

- **Guernsey silt loam (GeB, GeC, and GeD):** The Guernsey series consists of deep and moderately well drained soils with slopes ranging from 3 to 25 percent. Guernsey soils are found on ridges on hills. Parent material is colluvium derived from limestone and shale over residuum weathered from limestone and shale. The available water to a depth of 60 inches in Guernsey soils is high. A seasonal zone of water saturation is at 22 inches during January through April. These soils do not meet hydric criteria.

**Prime Farmland**

The BoB, CaB, DoB, and GeB soils are prime farmland soils, and CaC, DoC, GeC, and WeB are identified as soils of statewide importance in Pennsylvania (NRCS, 2018). However, as part of the 2001 EA, the VA previously documented the conversion of the 11 acres of prime farmland and 56 acres of farmland of statewide importance at the property from agricultural to cemetery land use in the USDA Farmland Conversion Impact Rating Form AD-1006 (VA, 2001). Although the impact rating suggested the impact from conversion should be avoided, no other suitable properties for a National Cemetery in southwest Pennsylvania were identified (VA, 2001). Therefore, conversion of farmland within the property was deemed unavoidable and sufficiently addressed in the 2001 EA (VA, 2001). As such, additional analysis of the conversion impact is not required for this Proposed Action.
Figure 7. Soil Types within the Proposed Action Project Study Area
### Table 6. USDA-NRCS Soils within the Project Study Area

<table>
<thead>
<tr>
<th>Soil Map Unit</th>
<th>Soil Map Unit Name</th>
<th>Drainage Class</th>
<th>Hydric (Y/N)</th>
<th>Acres within Project Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>BoB</td>
<td>Brooke silty clay loam, 3 to 8 percent slopes</td>
<td>Well drained</td>
<td>N</td>
<td>1.0</td>
</tr>
<tr>
<td>CaB</td>
<td>Culleoka channery silt loam, 3 to 8 percent slopes</td>
<td>Well drained</td>
<td>N</td>
<td>6.1</td>
</tr>
<tr>
<td>CaC</td>
<td>Culleoka channery silt loam, 8 to 15 percent slopes</td>
<td>Well drained</td>
<td>N</td>
<td>55.4</td>
</tr>
<tr>
<td>CaD</td>
<td>Culleoka channery silt loam, 15 to 25 percent slopes</td>
<td>Well drained</td>
<td>N</td>
<td>27.4</td>
</tr>
<tr>
<td>DoB</td>
<td>Dormont silt loam, 3 to 8 percent slopes</td>
<td>Moderately well drained</td>
<td>N</td>
<td>9.6</td>
</tr>
<tr>
<td>DoC</td>
<td>Dormont silt loam, 8 to 15 percent slopes</td>
<td>Moderately well drained</td>
<td>N</td>
<td>29.1</td>
</tr>
<tr>
<td>DoD</td>
<td>Dormont silt loam, 15 to 25 percent slopes</td>
<td>Moderately well drained</td>
<td>Y</td>
<td>3.2</td>
</tr>
<tr>
<td>Fa</td>
<td>Fluvaquents, loamy</td>
<td>Poorly drained</td>
<td>Y</td>
<td>4.6</td>
</tr>
<tr>
<td>GeB</td>
<td>Guernsey silt loam, 3 to 8 percent slopes</td>
<td>Moderately well drained</td>
<td>N</td>
<td>9.8</td>
</tr>
<tr>
<td>GeC</td>
<td>Guernsey silt loam, 8 to 15 percent slopes</td>
<td>Moderately well drained</td>
<td>N</td>
<td>8.9</td>
</tr>
<tr>
<td>GeD</td>
<td>Guernsey silt loam, 15 to 25 percent slopes</td>
<td>Moderately well drained</td>
<td>N</td>
<td>0.1</td>
</tr>
<tr>
<td>WeB</td>
<td>Weikert-Culleoka complex, 3 to 8 percent slopes</td>
<td>Somewhat excessively drained</td>
<td>N</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>155.9</strong></td>
</tr>
</tbody>
</table>

### 3.6.2 Environmental Consequences

If a project would result in an increased geologic hazard or a substantial change in the availability of a geologic resource, it could have a significant effect. Such geologic and soil hazards would include, but not be limited to, seismic vibration, land subsidence, and slope instability.

#### 3.6.2.1 Proposed Action

**Geology**

**Construction and Operation.** The Phase 3 expansion would require grading operations associated with roadway realignment and construction, and excavations for pre-placed burial crypts. The potential future expansion phases in the southern portion of the property would also require mass grading and excavation to create burial areas, roadways, and the potential irrigation pond. These activities would potentially encounter the upper surface of shallow, highly weathered bedrock, as well as denser bedrock, typically during crypt placement. Prior geotechnical investigations indicated that conventional excavation methods would be suitable for ripping the highly weathered bedrock, while special excavation techniques such as hammering or blasting could be required if excavations encounter denser layers of rock. Encountering and excavating into the underlying bedrock would not be considered itself, or lead to, an adverse impact on the competency or environmental quality of bedrock at or in the vicinity of the construction areas.

The 2001 EA indicated that while coal mining had been conducted at and in the vicinity of the property (prior to purchase by the VA), there was a negligible likelihood of subsidence once the property was developed as a cemetery (VA, 2001). This was due to the topography, overburden thickness of 320-540 feet, and lack of historical evidence of mine subsidence at or near the property (VA, 2001).
Therefore, construction and operation of the Proposed Action would have a short-term, direct, negligible adverse impact on geology.

**Topography**

**Construction.** Construction of the Phase 3 expansion would have a negligible adverse impact on the topography of the northern area because the majority of land disturbance necessary for the Phase 3 expansion previously occurred during the Phase 1 cemetery construction, including construction of roadways and preparation of future burial areas. The Phase 3 expansion would also realign a portion of the existing roadway to lessen its pitch, which would have a beneficial impact on this roadway.

Construction of the potential future expansion phases in the southern portion of the property would require extensive grading. Cuts on the order of 0.5 feet to 17.0 feet below the existing ground surface and fills up to 9.0 feet may be required (VA, 2015b). The bottom of the proposed burial crypts would be set at approximately 8-feet below the final grading elevations. Additionally, the topographical slope of individual burial sections would generally be graded to less than 6%, and roads would be pitched no greater than 10%. Although grading would modify portions of the existing topography of the southern area, the overall natural undulating topography would be retained to the maximum extent practicable. Therefore, construction of the Proposed Action would have a long-term, direct, less-than-significant adverse impact on topography.

**Operation.** Operation of the Proposed Action would have no further impacts on topography.

**Soils**

**Construction.** Construction of the Phase 3 expansion and potential future expansion phases could adversely impact native soils through several mechanisms. The primary mechanism is during grading, which would remove the vegetation that otherwise stabilizes the underlying soil. Exposed soils that have not been compacted or restabilized with vegetation or hardscape may be susceptible to erosion by wind, temporarily increasing particulate matter (dust) in the area and creating adverse short-term health, visibility, and aesthetic impacts. Additionally, erosion from precipitation can potentially result in off-site discharges of sediment-laden runoff. Likewise, compaction can reduce the infiltration rate of the soil, leading to increased run-off potential and increased erosion of the down gradient surrounding soils.

To reduce the intensity of these potential adverse impacts on soil, a soil erosion and sedimentation control (SESC) plan would be completed by the VA as part of the PA DEP General National Pollutant Discharge Elimination System (NPDES) Permit for submission to the Washington County Conservation District (WCCD). The SESC BMPs are referenced in the Pennsylvania Erosion and Sediment Pollution Control Manual (PA ESC Manual). Additionally, a stormwater management plan would also be prepared and implemented to reduce soil erosion; the stormwater management systems are referenced in the Pennsylvania Stormwater Best Management Practices Manual (PA BMP Manual). Stormwater management, along with sediment and erosion control, is regulated under Chapter 102 of Pennsylvania State Code (25 PA Code Ch.102). Under State Code, the PA DEP is authorized to delegate permitting responsibilities to the County level. For Washington County, PA DEP has delegated its review to the WCCD. Accordingly, separate plans and design reports for stormwater management and for sediment and erosion control will need to be prepared and submitted to the WCCD for their approval.
The construction contractor would be required to adhere to the terms of the NPDES permit, which would specify the BMPs to prevent and reduce soil erosion and sedimentation during construction, including the use of silt fences, reinforced silt fences, composite filter socks, stabilized construction entrance(s), temporary sediment traps, and erosion control blanketing. Additionally, exposed soils would be revegetating with temporary and/or permanent non-invasive vegetation as soon as construction conditions allow. These BMPs would also include the use of water-spray trucks to prevent dust emissions from disturbed soil and physically brushing soil off of construction vehicle tires prior to leaving the construction area, as needed.

Construction and operational vehicles and equipment could also accidentally release petroleum-based fluids (diesel, hydraulic fluid) that can degrade soil quality, if the release is not immediately remediated. To avoid such potential releases and impacts, 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 emergency release of petroleum-based fluids, contain the release, and prevent impacts to soil from occurring. Additionally, construction equipment would be refueled in designated maintenance areas with impervious surfaces to avoid potential soil impacts.

Based on the prior geophysical investigations conducted at the property, coal may be encountered during any additional grading for the Phase 3 expansion or potential future expansion phases. Coal may not be reused, and incidental coal extraction is regulated by PADEP (25 Pa. Code Section 86.6, Surface Mining Conservation and Reclamation Act). It is noted that the extraction of coal incidental to government-financed construction projects or government-financed reclamation projects may be exempt from the permitting requirements of Chapter 86 (PADEP Document Number 563-2000-003, effective August 4, 2007). However, any coal that is encountered would be removed and either disposed of off-site, or encapsulated on-site (using an impervious membrane) at the NCOTA spoils area located on the eastern side of I-79. Prior to and following coal extraction, the construction contractor would notify PADEP and provide information about the volume of coal to be removed and the disposal method used. This approach would ensure there are no short- or long-term adverse impacts associated with coal handling and management during construction.

Therefore, by utilizing appropriate erosion and sedimentation BMPs and stormwater management BMPs, adherence to the terms of the PA DEP General NPDES permit, and proper coal management procedures, impacts from construction of the Proposed Action on soil would be minimized to short-term, direct, less-than-significant adverse levels.

**Operation.** During operation, soil impacts would be limited to excavation of topsoil for individual inground burial sites in designated burial sections. Excavated soil would be temporarily stockpiled and returned to the burial site from which it was obtained, and then sodded to prevent erosion. Any excess soil would be immediately removed from the interment area and stockpiled at the NCOTA spoils area, where these soils would not be subject to further erosion. Additionally, scheduled maintenance of stormwater management systems would be performed to ensure that the systems are functioning properly and soils are not eroded by stormwater run-off.

Therefore, operation of the Proposed Action would have a short-term, direct, negligible adverse impact on soils.
3.6.2.2  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.

3.7  Hydrology and Water Quality

3.7.1  Existing Environment

3.7.1.1  Surface Water

This section analyzes the potential impacts on surface waters; a discussion of wetlands and floodplains is presented in Section 3.10. The surface waters of Washington County, Pennsylvania are tributaries to the Ohio River, which originates in Pittsburgh’s Point State Park at the confluence of the Allegheny River, flowing southward, and the Monongahela River, flowing northward. The NCOTA property is in the 296-square-mile Chartiers Creek Watershed, which eventually drains to the Ohio River.

The NCOTA property drains to the east and south to unnamed tributaries of Chartiers Creek. Surface water features at the NCOTA property include two unnamed streams, neither of which are identified as PADEP Chapter 93 (Commonwealth of PA, 2018b) regulated streams. These surface water features are depicted on Figure 8. One unnamed perennial stream drains the northern portion of the property; the stream flows east through a culvert beneath I-79, then drains into an unnamed tributary of Chartiers Run Creek. The creek flows northeast into the Ohio River at mile marker 2.5.

A second unnamed perennial stream originates on the northern portion of the property near Morgan Road. This unnamed stream flows south through a 30” reinforced concrete culvert that crosses under Morgan Road, approximately 700-feet west of the NCOTA main entrance. The stream then flows south, crosses under the gravel road leading to the satellite maintenance area, converges with McPherson Creek, and ultimately discharges into Chartiers Run Creek.

3.7.1.2  Groundwater

The 2001 EA presented a background discussion of groundwater conditions in Washington County (VA, 2001). That information remains unchanged for this SEA. Where newer site-specific information about groundwater conditions was available, it is incorporated into the following discussion.

The 2001 EA indicated that the depth to high water table underlying the NCOTA property varied seasonally, ranging from 1.5-feet bgs, to greater than 6-feet bgs for up to nine months of the year, and added that soils with a high-water table of greater than 6-feet bgs covered much of the property (VA, 2001).

Subsequent to the 2001 EA, the 2014 and 2017 site-specific geotechnical investigations indicated that the depth to groundwater was observed in the northern portion of the property at 4-feet bgs (possible perched water table) and generally deeper than 12-feet bgs elsewhere. In the southern portion of the property, groundwater was observed at approximately 0.5-feet bgs (B-5) near the northwest boundary; 8-feet (PZ-5) near the southeast boundary; 9-feet bgs (B-35) near the northeast boundary; 16.5-feet bgs (PZ-9) near the center; and 18.8-feet bgs (B-26) near Morgan Road. Groundwater was generally not encountered above 10-feet bgs in the remaining borings and piezometers (shallow wells) advanced in the southern portion of the property.
Figure 8. Streams at and in the Vicinity of NCOTA
3.7.2 Environmental Consequences

3.7.2.1 Proposed Action

**Surface Water**

**Construction.** Stormwater runoff from areas under development can result in off-site problems including erosion and water quality degradation due to sedimentation and other non-point source pollutants. These impacts are greatest during construction periods when soils are present without any vegetative cover. Construction of the Phase 3 expansion and potential future expansion phases, particularly during grading, could result in these adverse effects occurring to surface water resources.

To minimize these potential adverse impacts, erosion and sediment controls and stormwater management systems would be implemented at the start of the construction process and continuously maintained. As previously described under the Soils heading in section 3.6, these BMPs would be specified in the PADEP General NPDES permit.

Additionally, the Phase 3 expansion and potential future expansion phases 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.

Similarly, the design for the Proposed Action expansion phases would adhere to the PA Stormwater BMP Manual guidelines and regulations, which indicates that there should not be an increase in post-development runoff volume for all storms equal to or less than the 2-year/24-hour storm event. The PA Stormwater BMP Manual also indicates that the post-development peak rate of discharge for the 1-year through 100-year events should not exceed the pre-development peak rates. Additionally, the composite efficiency of the proposed stormwater BMP’s shall provide an 85% reduction in post-development particulate associated pollutant load, an 85% reduction in post-development total phosphorus loads, and a 50% reduction in post-development solute loads. The VA would construct stormwater management systems that adhere to these design requirements, such that operation of the Proposed Action would not have a significant adverse impact on stormwater management and surface water quality. Stormwater management practices may also include the construction of infiltration basins and trenches, bioretention basins, vegetated filter strips, and vegetated swales.

Similar to soil impacts, a release of petroleum-based fluids from construction equipment could adversely impact surface water or groundwater quality. As such, construction equipment will be properly maintained in good working order and equipped with emergency spill kits. This would ensure that construction contractors are prepared to respond to a release of petroleum-based fluids (diesel, hydraulic fluid) to surface water or groundwater. Additionally, construction equipment would be refueled in designated impervious areas away from surface water resources.

Therefore, construction of the Proposed Action would have a short-term, direct, less-than-significant adverse impact on surface water.
**Operation.** Operation of the Proposed Action would generate stormwater run-off from the new impervious surfaces, namely the new roadways and other hardscapes. For the Phase 3 expansion in the northern portion of the property, stormwater run-off would be captured in the existing closed drainage system and discharged to eleven (11) level spreaders located throughout the northern portion of the property. The level spreaders promote sheet flow of the captured runoff and reduce erosion and channelization at the discharge locations. However, as previously described, improvements would be made to the existing stormwater management system and/or new stormwater management systems would be constructed and properly maintained to treat additional impervious areas, as well as to manage the anticipated increase in stormwater run-off rate and volume.

Stormwater associated with potential future expansion phases in the southern portion of the property would infiltrate into the ground, be directed to the proposed irrigation pond (up to 1.5 acres in area), or managed according to one or more of the practices described above.

Additionally, vegetation in landscaped areas would be maintained to prevent exposure of underlying soils. These design features and stormwater management measures would minimize the potential for sedimentation of run-off, which could adversely impact surface water resources.

During operation, pesticide/herbicide applications (as part of routine maintenance activities) and the use of road deicing chemicals during the winter would be performed to the minimum extent necessary and in accordance with manufacturer specifications, resulting in minimal impacts to surface water and groundwater resources.

Therefore, operation of the Proposed Action would have a long-term, direct, negligible impact on surface water quality.

**Groundwater**

**Construction.** Construction activities that require deep excavations/cutting may encounter perched groundwater within or above fine-grained soils at the NCOTA property. However, groundwater is likely present at depths greater than 20-feet bgs in the northern portion of the property and greater than 10-feet bgs throughout much of the southern portion of the property. Therefore, construction activities are not anticipated to encounter groundwater, or have prolonged contact time.

Therefore, construction would result in short-term, direct, negligible adverse impacts to 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 3 cemetery expansion or potential future cemetery expansions. 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. Modern embalming fluids are markedly less toxic as the primary active ingredients are no longer arsenic-based. Additionally, as selection of either cremain interment or columbaria placement increases, the potential for groundwater contamination commensurately decreases, as no embalming fluids are used in these processes.
Additionally, the proposed crypt fields would utilize an adequate underdrainage system designed to keep groundwater from reaching the inside of the lowest crypt. As a result, operation of crypt fields is not anticipated to encounter groundwater, or, if groundwater is present, the contact period would be temporary.

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 minimal impacts to underlying groundwater resources.

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

3.7.2.2 No Action

No changes to the property 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.

3.8 Wildlife and Habitat

3.8.1 Existing Environment

Federally-listed species are those plants and animals 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 plants and animals managed by the Commonwealth of Pennsylvania pursuant to Title 30, Chapter 75: Fish and Boat Code (fish, amphibians, reptiles, and aquatic organisms), Title 34, Chapter 133: Game and Wildlife Code (wild birds and mammals), and Title 17, Chapter 45: Conservation of Wild Plants (native plant species). State-listed species are classified as endangered, threatened, and species of special concern.

The potential for state- and/or federally-listed plant and animal species occurring within the Proposed Action expansion areas (Project Study Area) was assessed via the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Tool on April 5, 2018, and during an on-site field survey for wildlife and habitat at the Project Study Area on April 13, 2018. The findings from this research and survey are summarized in the following subsections.

3.8.1.1 Wildlife

Wildlife observed within the Project Study Area included red-winged blackbird (Agelaius phoeniceus), red-tailed hawk (Buteo jamaicensis), eastern wood pewee (Contopus virens), pileated woodpecker (Dryocopus pileatus), red-bellied woodpecker (Melanerpes carolinus), song sparrow (Melospiza melodia), white-tailed deer (Odocoileus virginianus), chickadee (Poecile sp.), American robin (Turdus migratorius), and American goldfinch (Spinus tristis).

3.8.1.2 Listed Species

Based on the field survey and the literature review of the listed species information, it was determined that the Project Study Area contains suitable habitat for one federally- and state-listed species, listed in Table 7. Concurrence of affect determinations for the federally-listed species will be sought through the NEPA process associated with the Proposed Action.
Table 7. Listed Species Potentially Occurring within Study Area

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Federal Status</th>
<th>State Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myotis septentrionalis</td>
<td>Northern long-eared bat</td>
<td>T</td>
<td>C – Rare</td>
</tr>
</tbody>
</table>

Notes:

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

Northern Long-Eared Bat

The northern long-eared bat is listed as a state candidate rare species by the Pennsylvania Game Commission (PGC) and as a threatened species by the U.S. Fish and Wildlife Services (USFWS). The northern long-eared bat is characterized by its long, rounded ears that, when folded forward, extend beyond the tip of the nose. In Pennsylvania, the northern long-eared bat is found in forests. Northern long-eared bats hunt at night over small ponds, in forest clearings, at tree top level, and along forest edges. They use caves and underground mines for hibernation. Maternity roosts are located in tree cavities, under exfoliating bark, and in buildings. The primary threat to the species is white-nose syndrome, a fungus that appears on the muzzle and other parts of hibernating bats. Impacts to hibernacula and loss or degradation of summer habitat can also cause mortality in northern long-eared bats.

During the field survey on April 13, 2018, the Project Study Area was surveyed for suitable northern long-eared bat habitat. No northern long-eared bats were observed during the field survey. However, suitable habitat is available for this species within two small forested areas, totaling approximately 9.9 acres of forest, in the southwest portion of the Project Study Area.

Bald Eagle

Although 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 USC 668. Pursuant to USFWS bald eagle guidelines, any disturbance within 660 feet of a bald eagle nest requires additional coordination and potential permitting with the USFWS. The bald eagle typically uses riparian habitat associated with coastal areas, lake shorelines, and river banks. The nests are generally located near bodies of water that provide a dependable food source. According to the USFWS online bald eagle nesting sites locator, no nests are located within one mile of the Project Study Area and none were observed during the field survey on April 13, 2018. For these reasons, it has been determined that the Proposed Action would not adversely affect the bald eagle.

The Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Tool was used to assess potential impacts on state- and federally listed threatened and endangered species, as well as special concern species and resources in Pennsylvania. The PNDI environmental review for the Proposed Action, completed April 5, 2018, states that, based on PNDI records, the Pennsylvania Department of Conservation and Natural Resources, and Pennsylvania Fish and Boat Commission have not identified any known, anticipated impact on threatened and endangered species and/or special concern species and resources, and that no further review action is required.

According to the PNDI environmental project review, the PGC has identified potential impacts from the Proposed Action to state and federally listed species, which are under the jurisdiction of both the PGC and the USFWS. As a result, the PGC defers comments on potential impacts to
federally listed species to the USFWS. No further coordination with the PGC is required at this time.

The USFWS states that the proposed project is in the vicinity of a northern long-eared bat (*Myotis septentrionalis*) maternity roost(s). To avoid prohibited incidental take of northern long-eared bats during the pup season, the USFWS Avoidance Measure prohibits any tree removal from June 1 to July 31. Tree removal is defined as cutting down, harvesting, destroying, trimming, or manipulating trees, saplings, or snags. This seasonal restriction on tree removal is not required when removing hazardous trees for the protection of human life and property, as incidental take resulting from hazardous tree removal is exempted by the USFWS’s 4(d) rule. Projects that incorporate this USFWS Avoidance Measure do not require further coordination with the USFWS regarding threatened and endangered species and/or special concern species and resources under the *Endangered Species Act* (87 Stat. 884, as amended; 16 USC 1531 et seq.).

The protected species information from the PNDI and USFWS is included in Appendix A, which summarizes the relevant information on the species and their known locations.

**Critical Habitat**

The Project Study Area was assessed for the occurrence of USFWS Critical Habitat as defined by 17 CFR Part 35.1532. The Project Study Area is within the distribution area of the federally-threatened northern long-eared bat. As discussed above, northern long-eared bats live in forests. By implementing the USFWS Avoidance Measure (seasonal restrictions) on tree removal from June 1 to July 31, prohibited incidental take of northern long-eared bats during the pup season would be avoided.

### 3.8.2 Environmental Consequences

#### 3.8.2.1 Proposed Action

**Construction and Operation.** The northern portion of the property designated for the Phase 3 expansion has already been disturbed and therefore construction in this area would not impact any wildlife or habitat. In addition, the Phase 3 expansion design avoids impacts to the preservation area and would maintain vegetation buffers along I-79 and County Line Road.

Construction and operation of the potential future expansion phases in the southern portion of the property would permanently convert the current pasture land to landscaped grounds. Additionally, the southern portion of the property is within the critical habitat distribution of the northern long-eared bat. Based on the PNDI environmental review, USFWS recommends the avoidance measure of seasonal tree clearing restrictions from June 1 to July 31 to avoid prohibited incidental take of northern long-eared bats during the pup season. Therefore, to avoid potential impacts to the northern long-eared bat, the VA would implement the USFWS avoidance measures for tree removal described above. Under this approach, no further consultation or coordination under the *Endangered Species Act* would be required and northern long-eared bats would not be impacted.

The Proposed Action would focus development on previously managed or disturbed grasslands, thereby reducing the amount of vegetation and tree disturbance. The majority of the species that are currently found at the Project Study Area are adapted to living in a disturbed and/or suburban area and co-existing with human activity. Therefore, these disturbances and alterations would have short-term, direct, less-than-significant adverse impacts on terrestrial wildlife species and on the quality of the habitat at the NCOTA property.
3.8.2.2 No Action

Under the No Action Alternative, expansion would not occur. Environmental conditions would remain as they currently exist, and there would be no impact to listed species or changes in the type or quality of habitat.

3.9 Noise

3.9.1 Existing Environment

Noise sensitive receptors are defined as properties where frequent human use occurs and where a lowered noise level would be of benefit. These noise sensitive receptors are considered to be residences, hospitals, libraries, recreation areas, churches, and other similar uses.

The NCOTA is located in a quiet rural area with agricultural and low-to-medium density residential land uses predominating the immediate surrounding area. There is a church located approximately 0.2 miles directly east of the NCOTA and across I-79 in a medium-density residential neighborhood. Several houses are located in a low-density pattern adjacent to the northwestern boundary of the NCOTA property, along County Line Road. There are no schools or hospitals within a 1-mile radius of the NCOTA.

The noises in the immediate surrounding area are typical of rural/residential areas. The principal source of noise in the area is from traffic along I-79, and to a lesser degree along nearby roads including Morgan Road and County Line Road.

The noises at the NCOTA are generated during weekday daytime hours and include ceremonial rifle salutes during memorial services at committal shelters, routine maintenance activities (mowing, burials, etc.), and visitor traffic within the cemetery grounds.

No other notable noise-generating sources are present at or in the immediate vicinity of the NCOTA.

3.9.2 Environmental Consequences

If a project would result in significantly adverse increases in ambient noise levels at sensitive receptors or result in excessive ground-borne vibration to persons or property, it could have a significant effect.

3.9.2.1 Proposed Action

Construction. Noise would be generated during construction of the Phase 3 expansion and potential future expansion phases. A similar type and volume of noise would be generated during these expansions. Noise would be produced by construction equipment primarily involved in land grading, road construction, and excavations. Once mobilized to the site, the majority of construction equipment would remain within the proposed expansion area/construction boundary until that phase of construction for which the equipment was needed is complete. This approach would minimize the need for multiple mobilizations of equipment, thereby decreasing the amount of noise associated with equipment travel within the NCOTA and on nearby roads.

Within the proposed expansion area, noise from construction activities would vary depending on the type of equipment being used at the time. The impact from this noise on a receptor depends on the distance between the noise source and receptor. Generally, noise levels decrease by approximately 6 dBA for every doubling of distance for point sources (such as a single piece of construction equipment), and approximately 3 dBA for every doubling of distance for line sources.
(such as a stream of motor vehicles on a busy road at a distance). The nearest noise receptor would be the low-density residential area bordering the northwestern portion of the property. The current preservation area in the northern portion of the property is located between the Phase 1 cemetery and this receptor. This preservation area acts as a buffer to further attenuate the intensity of noise experienced by these receptors.

Noise impacts would be further minimized by equipping construction equipment with appropriate sound-muffling devices (i.e., from the original equipment manufacturer or better), and limiting engine idling to less than 5 minutes. Additionally, construction activities would take place during daylight hours and during weekdays, unless there is a specific activity that would directly impact the current operation of the cemetery, in which case the activity would be scheduled outside of the normal construction schedule.

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

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

Therefore, construction of the Proposed Action would result in short-term, direct, less-than-significant adverse impacts to receptors of noise that include visitors to the cemetery, off-site receptors, and workers.

**Operation.** The Proposed Action does not include any new committal shelters; therefore, no new locations for ceremonial rifle salutes would be created. Ceremonial rifle salutes would continue to occur at the Phase 1 cemetery committal shelters, which to date have not resulted in any documented noise concerns. Operation of the Proposed Action would expand noise generated from maintenance activities and visitor traffic occurring within the expansion areas within the northern and southern portions of the property. The noise generated from these activities would be similar to current Phase 1 cemetery operations. These noises have not generated any documented concerns from nearby receptors. To ensure operational maintenance noises do not become a nuisance, the maintenance equipment would be maintained in good working order. Additionally, maintenance equipment would be operated during daylight working hours and away from committal services, thereby maintaining the dignity and solemnity of the NCOTA environment during these memorial services.

As such, operation of the Proposed Action would result in short-term, direct, negligible adverse noise impacts on sensitive receptors.

### 3.9.2.2 No Action

Under the No Action Alternative, the cemetery expansion would not occur, and no additional noise impacts would result. Ceremonial rifle salutes would continue until cemetery capacity is reached, and grounds maintenance activities would continue thereafter.
3.10 Floodplains and Wetlands

3.10.1 Existing Environment

Wetlands

The USACE has regulatory jurisdiction over Waters of the United States, including wetlands pursuant to Section 404 of the Clean Water Act (CWA) and Navigable Waters of the United States pursuant to Section 10 of the 1899 Rivers and Harbors Act. Jurisdictional wetlands are delineated based upon the presence of hydric soils, hydrologic indicators, and hydrophytic vegetation in accordance with the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual for the Eastern Mountains and Piedmont Region (USACE, 2012) and Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979). In Pennsylvania, wetlands and streams are potentially regulated under Title 25, Pennsylvania Code, Section 105, Dam Safety and Water Management as Regulated Waters of this Commonwealth (Commonwealth of PA, 2018c).

In 2002, Civil & Environmental Consultants, Inc. (CEC) completed a Wetland and Stream Delineation for the property in accordance with the USACE Wetland Delineation Manual, Technical Report Y-87-1 and using wetland criteria detailed in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) (Environmental Laboratory, 1987; USACE, 2012). CEC identified 17 separate wetland areas ranging in size from 0.1 to 0.98 acres and totaling 2.44 acres, and 1,230 linear feet of streams. A USACE Regulatory Guidance Letter for Jurisdictional Determination, dated June 26, 2008, determined that these wetlands may be jurisdictional waters of the United States and could, therefore, be subject to USACE oversight under Section 404 of the CWA.

In 2017 ESC Mid-Atlantic, LLC (ESC) completed a Wetland and Stream Delineation for the southern portion of the property in accordance with the aforementioned USACE requirements (Environmental Laboratory, 1987; USACE, 2012). As depicted in Figure 9, ESC identified seven palustrine emergent (PEM) wetlands and one palustrine forested (PFO) wetland ranging in size from 0.01 to 0.44 acre and totaling 1.22 acres, and one perennial stream totaling 1,520 linear feet (this unnamed stream is described under the Surface Water heading in Section 3.7). All wetlands identified on the NCOTA property are associated with the perennial stream. The primary hydrological sources for the wetland areas are seeps originating upslope or within the wetland areas, concentration of surface flows in low lying areas, and the unnamed perennial stream.

A USACE Regulatory Guidance Letter for Jurisdictional Determination, dated October 16, 2017, determined that these wetlands may be jurisdictional waters of the United States and could, therefore, be subject to USACE oversight under Section 404 of the CWA. A copy of the letter is provided in Appendix A.

In addition to the above on-site delineations, one USFWS NWI-mapped wetland was identified within a mixed forest in the northern portion of the property, but outside of the Phase 3 expansion area boundary. This wetland was classified as R5UBH: Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded (USFWS, 2018). This NWI-mapped wetland is also mapped as PA Chapter 93 stream with a designated use of Warm Water Fishes (WWF). There is no existing use listed for this stream.
Figure 9. Wetlands and Waters of the United States in Southern Area
Floodplains

Based on review of available Federal Emergency Management Agency (FEMA) Flood Zone Maps (Figure 10), the NCOTA property is located within an area of minimal flood hazard (Zone X; above the 500-year floodplain), and is not within a 100-year (Zone A, AE) or a 500-year floodplain (FEMA, 2015). The PADEP, in absence of a FEMA-mapped floodplain, regulates the floodway, which is assumed to be 50 feet from top-of-bank on either side of the stream.

3.10.2 Environmental Consequences

3.10.2.1 Proposed Action

Wetlands

Construction. As part of the 2015 SEA, which analyzed the potential development for a design very similar to the proposed Phase 3 expansion, the USACE issued a letter dated April 11, 2014, indicating that the proposed expansion would not impact streams or wetlands, and therefore a Department of the Army permit was not required (VA, 2015). However, the letter indicated that if the plans changed, the VA should consult with USACE to determine whether a permit would be required based on the new plan.

Under the current Proposed Action analyzed in this SEA, the Phase 3 expansion boundary in the norther portion of the property is generally similar to the proposed expansion area analyzed in the 2015 SEA (see Figure 2A). Likewise, the 2018 Master Plan design for the Phase 3 expansion also entirely avoids development within or near wetlands or waters of the U.S. (including the NWI-mapped wetland near the eastern border and the unnamed stream near the northern border). Therefore, the Phase 3 expansion would have no adverse impact on wetlands or waters of the U.S.

Under the Proposed Action for the potential future expansion phases in the southern portion of the property, the 2018 Master Plan includes the potential construction of an up to 1.5-acre irrigation pond that, if implemented, would encompass the approximately 0.19-acre jurisdictional wetland (Wetland H) near the central eastern border of the property (see Figure 2B). This action would require a Pennsylvania Chapter 105 Water Obstruction and Encroachment Permit and USACE Section 404 Permit, referred to as the “Joint Permit Application,” and is required for projects that affect surface waters, wetlands, or sovereign submerged lands. However, the decision to create the potential irrigation pond would not be made for at least another 8-10 years, at the time when the VA would conduct an overall evaluation of the need to implement another expansion phase per the 2018 Master Plan. Accordingly, the Joint Permit Application would only be submitted if and when a future decision is made to construct the potential irrigation pond. A functions and values assessment of the wetland would be conducted to establish the value associated with the impact and compensatory mitigation would be required to offset the value lost as a mitigation measure. Additionally, under the Proposed Action, the 2018 Master Plan design for potential future expansion in the southern portion of the property includes the construction of a ring road with two bridges that would cross above the unnamed stream. To avoid impacts to the stream and adjacent wetlands, the bridge footings would be located 50 feet beyond the top of bank of the stream and the wetland boundaries. This approach would ensure the construction of the bridges would avoid having an adverse impact on wetlands or waters of the United States.
Figure 10. Natural Resource Map for the Proposed Action Project Study Area
Construction activities that result in removal of vegetation and expose soils could increase sediment loads in stormwater run-off, which could cause an adverse impact if allowed to reach wetlands and surrounding streams. To avoid this potential adverse impact, the construction contractor would implement the erosion and sediment control BMPs previously described under the Soils and Hydrology and Water Quality headings in Sections 3.6 and 3.7, respectively.

By implementing these design avoidance measures and BMPs, construction of the Phase 3 expansion would have no impact on wetlands, while the potential future expansion phases would have a long-term, direct, minor adverse impact.

**Operation.** Operation of the Proposed Action has no anticipated activities that would adversely impact wetlands. Existing and new stormwater engineering controls would be properly maintained to ensure stormwater run-off is properly managed such that its flow would not cause soil erosion. Additionally, newly landscaped vegetated areas would be professionally maintained to ensure soils remain covered and are not subject to potential erosive forces. Herbicide/pesticide applications would be made accordingly to label instructions as part of routine maintenance activities and would avoid direct application to or near wetlands or surface water bodies.

Therefore, operation of the Proposed Action would result in long-term, direct, negligible adverse impacts on wetlands and waters of the U.S.

**Floodplains**

The Proposed Action would have no impact on floodplains. As previously described, the NCOTA property is not located within 100- or 500-year floodplains and bridge footings would be located 50 feet beyond the top of bank of the stream and the wetland boundaries.

**3.10.2.2 No Action**

The No Action Alternative would result in no impacts to wetlands because expansions would not occur, and current conditions would remain unchanged. Similar to the Proposed Action, the No Action alternative would have no impact on floodplains.

**3.11 Socioeconomics**

**3.11.1 Existing Environment**

The NCOTA is located within a rural, low-density residential area in southwestern Pennsylvania. The socioeconomic conditions are influenced by the employment opportunities in the region, which are predominantly associated with agriculture and mining (mineral, fuels) to the west, and light and heavy manufacturing, health care, and retail activities to the east/northeast toward Pittsburgh. The median annual income in Washington County, PA is $57,534, which is slightly more than the median annual income of $54,895 for Pennsylvania and $55,332 for the United States. Washington County is the 18th most populated county in Pennsylvania, and the population has remained generally steady at approximately +200,000 individuals from 1970 to 2016 (the year the most recent data were reported).

Relevant demographic data for Washington County and Pennsylvania are presented in Table 8, and economic data are presented in Table 9. The data presented herein are from the U.S. Census Bureau's 2012-2016 American Community Survey (ACS) 5-year Summary and the U.S. Department of Labor, Bureau of Labor Statistics (BLS).
Table 8. Demographic Data for Washington County and Commonwealth of Pennsylvania

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Population¹</th>
<th>Median Age</th>
<th>% Population under age 18¹</th>
<th>% Minority Population²</th>
<th>% High School Graduates¹</th>
<th>Veterans¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington County</td>
<td>207,298</td>
<td>44.3</td>
<td>19.5%</td>
<td>6.3%</td>
<td>91.8%</td>
<td>16,379</td>
</tr>
<tr>
<td>Commonwealth of Pennsylvania</td>
<td>12,805,537</td>
<td>40.6</td>
<td>20.8%</td>
<td>17.9%</td>
<td>89.5%</td>
<td>840,258</td>
</tr>
</tbody>
</table>

¹ – U.S. Census Bureau 2018a
² – includes all race/ethnicity categories except non-Hispanic White persons

Table 9. Economic Data for Washington County and the Commonwealth of Pennsylvania

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Households¹</th>
<th>% Population in Poverty²</th>
<th>% Unemployment Rate²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington County</td>
<td>83,745</td>
<td>9.7%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Commonwealth of Pennsylvania</td>
<td>4,961,929</td>
<td>12.9%</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

¹ – U.S. Census Bureau, 2018b
² – NOTE: Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

3.11.2 Environmental Consequences

3.11.2.1 Proposed Action

Construction. The VA would utilize a competitive bidding process to select and hire a qualified firm to construct the Phase 3 expansion. A similar process would be used to construct each of the potential future expansion phases in the southern portion of the property. Construction of the individual expansion phases would not result in a direct or indirect significant beneficial or adverse impact on socioeconomics on a regional scale. However, construction of an expansion phase would require the temporary employment (by the construction contractor) of skilled laborers during each phase. Additionally, construction would require the purchase of supplies and materials (aggregate, masonry, landscape plantings) from local and regional vendors. The temporary increase in employment and spending on materials would have a short-term, direct, less-than-significant beneficial impact on the local economy, but only a negligible or no impact on the regional socioeconomic conditions. These construction-related beneficial impacts would end once a construction phase is completed.

Operation. The current workforce at the NCOTA is anticipated to be sufficient to maintain and operate the Proposed Action expansion phases. If needed, additional maintenance staff (1-5) could be hired to help maintain the larger area of landscaped grounds. Maintaining or slightly increasing staff levels would have no measurable impact on the socioeconomic conditions of the county or region.

The Proposed Action would increase the interment capacity, and therefore the longevity of the NCOTA. Over time, this would lead to a slight increase in the number of visitors to this area of southwestern Pennsylvania. These visitors could potentially utilize area businesses (restaurants, lodging, service stations, etc.) during visits. The potential increase in spending would have a negligible beneficial impact in context to the overall economic activity in Washington County or the southwestern region of Pennsylvania. Additionally, extending the longevity of the NCOTA...
allows veterans in southwestern Pennsylvania to continue choosing to be interred at this National Cemetery, and allows their families, who may also reside in southwestern Pennsylvania, to avoid travelling longer distances to other National Cemeteries beyond this region of Pennsylvania. Therefore, operation of the Proposed Action would have a long-term, direct and indirect, negligible beneficial impact on socioeconomics.

3.11.2.2 No Action

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

3.12 Community Services

3.12.1 Existing Environment

The NCOTA has provided burial benefits for Veterans and their families in southwestern Pennsylvania since 2005. Although the Phase 1 cemetery has a capacity of approximately 13,000 gravesites, the VA anticipates this capacity will be reached in the next several years (the specific date is not calculated because burial frequency can change over time). As previously described in Section 1, there are no other National Cemeteries within 75-miles of the NCOTA.

There is no public transportation available within a mile of the cemetery. Washington County’s public transportation system, Freedom Transit, provides a “Shared Ride” transportation program to eligible residents within Washington County.

Other community services provided by Washington County 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 community services as a result of the Proposed Action, impacts to community services other than Veterans’ burial benefits are not analyzed in this SEA.

3.12.2 Environmental Consequences

3.12.2.1 Proposed Action

Construction and Operation. The Proposed Action Phase 3 expansion would provide approximately 13,000 gravesites, and approximately 50,900 gravesites over the course of full buildout of the potential future expansion phases in the southern portion of the property. Therefore, the Proposed Action would extend the longevity of the NCOTA for several decades. This would allow the VA to meet the continued demand for burial benefits by Veterans and their families in southwestern Pennsylvania, resulting in a direct, long-term, significant beneficial impact on this community resource.

3.12.2.2 No Action

Under the No Action alternative, the Proposed Action would not be implemented, and there would be no increase in burial capacity or extension of the longevity of the NCOTA. Upon reaching capacity, Veterans in southwestern Pennsylvania would be required to obtain burial benefits at another National Cemetery, the nearest of which is located more than 75-miles outside of southwestern Pennsylvania. The NCA has learned through experience that few people will elect burial at a National Cemetery that is farther than 100 miles from their residence, and that there is a reluctance for burial to take place across a state line from the place of residence (VA, 2001).
Veterans, their families, and visitors would have to travel approximately 225 miles—a distance considered to be an undue burden—to obtain burial benefits at the next nearest National Cemetery in Pennsylvania. Furthermore, the No Action alternative is not in compliance with the Service Members Civil Relief Act. Therefore, the No Action alternative would result in a long-term, direct, significant adverse impact on burial opportunities for Veterans and their families in southwestern Pennsylvania.

3.13 Solid and Hazardous Materials

3.13.1 Existing Environment

Historical Waste Assessment

As part of the 2001 EA, a hazardous materials assessment including an environmental database review and site reconnaissance was performed to identify "recognized environmental conditions" that may have existed on the property prior to the VA’s purchase of it. This assessment met the government records search requirement of American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessment, E 1527-00.

Based on the site reconnaissance, regulatory review, and historical photograph review, the following recognized environmental concerns were identified in the 2001 SEA:

- One or possibly two Underground Storage Tanks (UST) abandoned in approximately 1970 remained in the ground adjacent to one of the [now former] barns on the southern farm [southern portion of the property]. The UST contained gasoline but was "emptied." No tank closure methods were implemented.

- A heating oil UST adjacent to the [now former] Robert Morgan, Sr. house near the center of the northern portion of the property.

The 2001 EA recommend further investigation of these USTs, though no further information about these USTs was present in the available file material. The former Robert Morgan, Sr. house was demolished during the development of the Phase 1 cemetery, and no record of encountering contamination was present in the available file material. To date, there have been no documented encounters with petroleum-impacted soils in the Phase 1 cemetery. Therefore, no further investigation of the northern area is warranted.

Based on aerial photographs, the barn, house, and other outbuildings that were present on the southern portion of the property were removed between 2004 and 2007 after the VA purchased the parcel in 2003. Although the available file information does not describe the removal of these structures, it is possible that the UST(s) were encountered and removed coincident with demolition of the buildings. During the 2017 geotechnical investigation of the southern portion of the property, no evidence of USTs or petroleum-impacted soils was noted on the boring logs. However, should a UST be encountered during potential future expansion phases, the process for its removal or abandonment in place, as well as management of any potentially contaminated soil, would follow the requirements specified in the PADEP Division of Storage Tanks Closure Requirements for Underground Storage Tanks (Technical Guidance 253-4500-601; effective July 8, 2017).
Current Waste Assessment

As part of current NCOTA operations, solid waste is generated on a routine basis and includes typical office debris, flowers and other items left behind at burial sites, and container waste associated with minor vehicle maintenance activities. Solid waste is collected weekly and transferred to an off-site landfill for disposal.

Minimal quantities of hazardous materials, limited to herbicides and pesticides, may be stored at the NCOTA maintenance facility. Small volumes of excess soils are generated during burial operations. These soils are reutilized on-site whenever possible. Excess soils are stockpiled at the NCOTA spoils area located to the east of I-79.

3.13.2 Environmental Consequences

3.13.2.1 Proposed Action

Construction. Prior to construction of potential future expansion phases in the southern portion of the property, further investigation would be performed for the possible UST(s) in the area of the former buildings. Should a UST be discovered, the UST and any potentially contaminated soil would be removed and disposed of according to the PADEP Division of Storage Tanks Closure Requirements for Underground Storage Tanks (Technical Guidance 253-4500-601; effective July 8, 2017).

Construction of the Phase 3 expansion and potential future expansion phases would generate solid waste, consisting of cleared vegetation, excess soil, and excess construction materials and packaging. Cleared vegetation would be composted on- or off-site. Excess soils would be reused on-site as fill to raise the elevation of designed burial areas. Any coal encountered would be managed as previously described under the Soils heading in Section 3.6. Excess construction materials would be containerized in a designated area within the construction site, and then transported off-site for recycling; materials that cannot be recycled would be landfilled off-site. Accordingly, the nature of the solid wastes generated during construction of the Proposed Action would be similar to a typical construction project (e.g., packaging, scrap hardscape supplies, etc.), and the volumes generated would not be anticipated to make a major contribution to the overall solid waste volume generated and disposed of in Washington County or southwestern Pennsylvania.

Additionally, all construction contractors would comply with the VA's solid and hazardous materials SOPs and management measures described in the NCA Master Construction Specifications. These management measures would ensure that potential impacts from construction of the expansion areas would remain at short-term, direct, negligible adverse levels.

Operation. Operation of the Proposed Action would result in a negligible increase in the volume of solid wastes currently generated at the NCOTA. These additional solid wastes would consist of flowers and other items left behind at burial sites. This potential future waste stream would be combined with the existing sanitary solid waste stream. Operation of the Proposed Action would not require or result in an increase in the volume of office wastes or maintenance vehicle wastes. Solid waste would continue to be collected weekly in designated dumpsters and transferred by a qualified private contractor to an appropriate municipal solid waste landfill.
Hazardous materials used during operation of the Proposed Action 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 in burial areas with landscaped vegetation and/or built structures (e.g. columbaria).

Anticipated future solid waste generation would be a negligible contributor to overall solid waste volumes generated in the area. Therefore, operation of the Proposed Action would have a long-term, direct, negligible adverse impact on solid wastes and hazardous materials.

3.13.2.2 No Action

Under the No Action alternative, the Proposed Action would not be implemented. An investigation of the potential UST(s) in the southern portion of the property would not occur. As noted in the 2001 EA, the UST was reportedly empty and abandoned in place, and therefore the possible continued presence of the potential UST is not anticipated to result in long-term adverse impacts on the environment. However, it remains possible that future development of this portion of the property would address the need for UST removal and remediation measures, if warranted. No other changes to solid and hazardous materials volume or management would occur under the No Action alternative. Therefore, no impacts would occur, and baseline conditions would remain, as described above.

3.14 Transportation and Parking

3.14.1 Existing Environment

Transportation Infrastructure in the Vicinity of NCOTA

The NCOTA is located on the north and south sides of Morgan Road east of County Line Road in Washington County, Pennsylvania (Figure 11). The property is divided by I-79 into a western section (260 acres; location of the NCOTA Phase 1 cemetery) and an eastern section (32 acres; location of a spoils area). The NCOTA is approximately 13 miles from the Pittsburgh International Airport.

The NCOTA main entrance and exit are located along Morgan Road, a two-lane road maintained by the Washington County Department of Public Works. A separate maintenance entrance and exit is located on Morgan Road, approximately 1,000-feet northwest of the NCOTA main entrance (Figure 12).

There is no interchange at I-79 with Morgan Road and therefore no direct access to NCOTA from I-79. The closest interchange on I-79 is the Southpointe Boulevard Interchange located approximately 0.5-miles south of the NCOTA entrance. Therefore, the principal approaches to the NCOTA from all major directions include:

- **From the north:** South on I-79 to Southpointe/Hendersonville interchange, east (left) towards Hendersonville, north (left) on Morganza Road, then west (left) onto Morgan Road to the main entrance.

- **From the south:** North on I-79 to Southpointe/Hendersonville interchange, east (right) towards Hendersonville, north (left) on Morganza Road, then west (left) onto Morgan Road to the main entrance.

- **From the east:** Baker Road changes to Morgan Road at Morganza Road. West (straight) on Morgan Road to the main entrance.
- **From the west:** East on Cecil-Henderson Road to Morgan Road, east (left) on Morgan Road to the main entrance.
- Major highways that serve these local roadways include I-79, State Route (SR) 50, and US 19.

**Transportation Infrastructure within NCOTA**

Within the northern portion of the NCOTA property, a series of asphalt-paved roadways allow visitors and staff to access burial areas, maintenance buildings, and administrative offices in the northern portion of the property. Use of this roadway is restricted to cemetery visitors and staff. No recreational uses are permitted. Visitors can drive directly to burial areas and park on the roadside. Visitors can also use the temporary parking area at the information kiosk. A cortege area near the main entrance provides a designated parking area for visitors attending a memorial service. Additionally, designated cortege staging areas for visitors attending a memorial service are provided near the memorial flag pole and each of the committal shelters. Parking for administrative staff is located at the administrative building. A separate contractor/maintenance parking area is located at the contractor yard as well as at the maintenance building, which is accessible via the maintenance entrance along Morgan Road. This ensures construction vehicles and associated equipment are not readily visible to visitors and maintains the solemnity of the National Cemetery. No other parking areas are present within the vicinity of the NCOTA.

The southern portion of the property is accessible from a small gravel-covered road originating along Morgan Road, between the NCOTA main entrance and the maintenance entrance. This road crosses over the unnamed stream channel and leads to the satellite maintenance shed. The private cemetery is also accessible from a narrow unpaved road originating along Morgan Road, directly across from the main NCOTA exit. The spoils area to the east of I-79 is accessible by crossing the Morgan Road bridge over I-79 and then turning north onto the dirt entrance road.
Figure 11. Roadways Associated with NCOTA

Legend
- National Cemetery of the Alleghenies
- Interstate Highway

Source: ESRI Data and Maps 2013

Coordinate System: WGS 84, UTM, Zone 17N, Meters
Figure 12. Existing Entrances and Exits to NCOTA

Source: 2018 Master Plan
Traffic Volumes for Area Roadways

Operation of the NCOTA contributes approximately 260 vehicles to the daily traffic volume along Morgan Road. This traffic is generated from an average of 40 funeral services performed per week/8 funeral services performed per day, with each funeral cortege containing approximately 3-50 vehicles for an average of 20 vehicles. The NCOTA receives approximately 100 visitors per day and up to 1,000 visitors on holidays, as well as a small number of vehicles from employees and contractors.

In December 2017, the Pennsylvania Turnpike Commission (PTC) released traffic data along with the Morganza/Morgan Road improvements for construction of the Southern Beltway SR 0576, Section 55C2-2 in Washington County, Pennsylvania. Traffic data for the study area are presented in Table 10.

Table 10. Average Annual Daily Traffic Volume for Area Roadways

<table>
<thead>
<tr>
<th>Location</th>
<th>Current Year ADT (2017)</th>
<th>Design Year ADT (2040)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 1009 (Morganza Road)</td>
<td>6,400</td>
<td>16,100</td>
</tr>
<tr>
<td>T-781 &amp; SR 1034 (Morgan Road)</td>
<td>2,150</td>
<td>4,300</td>
</tr>
<tr>
<td>T-787 (Baker Road)</td>
<td>3,100</td>
<td>12,500</td>
</tr>
</tbody>
</table>

Source: PTC, 2017

The 2001 SEA for site selection concluded that the impact of construction and operating the NCOTA at the property on day-to-day transportation would be minimal (VA, 2001). To date, operation of the NCOTA has not resulted in documented adverse impacts to area traffic levels or the transportation network.

Southern Beltway Project

Project Elements

In September 2008, a Record of Decision (ROD) (granting environmental clearance) was issued for the Southern Beltway Project, a major construction project initiated by the PTC (Federal Highway Administration [FHWA], 2008). The Southern Beltway Project would be a four-lane divided, limited access, tolled expressway originating at U.S. Route 22 at the completed Findlay Connector interchange that continues south and east to a connection with I-79 in Cecil Township, Washington County, near the Allegheny County/Washington County line and immediately adjacent to the NCOTA. A full interchange is planned at I-79 and Morganza Road (SR 1009), immediately to the east of the NCOTA (see Figure 13 and Figure 14). This interchange would greatly improve access to the NCOTA from I-79. Additionally, as part of the Southern Beltway Project, Morgan Road would be improved by slightly modifying its grade (flattening) and alignment to improve visibility and safety.
Figure 13. Southern Beltway Construction Project Location Map

Figure 14. Project 55C2-2 Location

Source: Southern Beltway Commission, 2016
Southern Beltway Project EIS and MOUs

The PCT completed an engineering and environmental impact study (EIS) to define and evaluate the alternatives for the Southern Beltway Project. Five alternatives were considered in total, with the evaluation of these alternatives presented to the public in 1997. Three alternatives were advanced for further evaluation to include engineering and environmental impact analysis, public involvement, and resource agency involvement.

Public comments on the EIS included concerns with visual effects at the NCOTA located along both sides of I-79 and the need for local roadway traffic access to the proposed interchange. In response, the PTC subsequently reevaluated and refined the original three-level design of the I-79 interchange to a two-level interchange; thereby reducing the potential visual effects (FHWA, 2008).

The Final EIS (FEIS) included measures to minimize harm to the NCOTA during construction of the Southern Beltway Project, including:

- FHWA coordination with the VA to address impacts to the NCOTA and to develop design and mitigation strategies to further avoid and minimize impacts. A Memorandum of Understanding (MOU) was executed on March 28, 2006 to facilitate the coordinated and compatible development of both the NCOTA and the Southern Beltway Projects.
- At the I-79 interchange area, the PTC would include earthen mounds along the western ramp to minimize its visual intrusion on the NCOTA. In addition, special plantings would be utilized to further screen the Southern Beltway Project from the NCOTA in this area.

In 2016 an updated MOU was negotiated between the VA and PTC (see Appendix B). Updates to the 2006 MOU included the following elements:

- The PTC will complete a reevaluation of the FEIS for the Southern Beltway Project, and submit the reevaluation to the FHWA for approval. The PTC will allow the VA to review and comment on the reevaluation of the FEIS as it is developed, to ensure that it meets the VA’s requirements and essential functions.
- As part of its FEIS reevaluation, the PTC will conduct, in cooperation with the PA SHPO, a review of all land owned by the VA which is required for construction of the Southern Beltway Project, including all permanent and temporary easements.
- The PTC and VA agree that no dirt work, construction, infrastructure installation nor any other actions or decisions that may be deemed an irretrievable commitment of resources may take place on the VA’s property prior to the approval of the FEIS reevaluation by FHWA and prior to VA’s completion of its own evaluation related to the proposed granting of easements from VA to PTC.
- The PTC agrees to the reconstruction of Morgan Road and Morgan Road Bridge as part of the Section 55-C2-2 Project, in accordance with the design approved by the VA. Access to the NCOTA, which is a critical mission of the VA, will be improved.
- The PTC agrees to construct a 350-foot long architectural wall behind the flagpole located on the NCOTA property.

Accordingly, these updates reflect continued coordination between the VA and PTC as the Southern Beltway Project and the Proposed Action (expansion of NCOTA) progress.
Southern Beltway Project Traffic Volumes

The PTC currently estimates the following traffic volumes once the improvements to Morgan Road are completed in 2020 (the estimated “Opening Year”) and in 2040 (“Design Year”) (based on pers. communication with MSConsultants [PCT engineering contractor] on March 28, 2018):

- Opening Year (2020) Average Daily Traffic Volume: 3,300 vehicles per day (2,150 in 2017)
- Opening Year (2020) Peak Hour Volumes:
  - AM Peak Hour = 230 vehicles per hour
  - PM Peak Hour = 196 vehicles per hour
- Design Year (2040) Average Daily Traffic Volume: 4,300 vehicles per day
- Design Year (2040) Peak Hour Volumes:
  - AM Peak Hour = 520 vehicles per hour
  - PM Peak Hour = 331 vehicles per hour

Southern Beltway Project Schedule

The PTC is scheduled to begin work on the Southern Beltway Project beginning in August - September 2018 with a completion date in June 2020. The construction would be completed in two phases. The first phase would replace the bridge over I-79 and complete work on Morgan Road to the east of I-79. The second phase would complete work on Morgan Road to the west of I-79. Both phases would affect traffic patterns in and around the NCOTA.

3.14.2 Environmental Consequences

This section analyzes the potential impacts of the Proposed Action on existing transportation infrastructure, with consideration of the upcoming Southern Beltway Project improvements.

3.14.2.1 Proposed Action

As previously discussed in the description of the Proposed Action in Section 2.2, the Phase 3 expansion transportation infrastructure improvements consist of the following elements (described in detail in Section 2.2):

- Grade Separated Connector Drive (bridge over Morgan Road)
- Semi-Circular Roadway (extending from western end of the bridge outlet, then back to Morgan Road)
- Roadway System Improvements (northern and southern portions of the property)

Construction. During construction of the expansion phases, there would be a temporary increase in the number of vehicles (including both construction vehicles and worker vehicles) on area roadways including Morgan Road and Morganza Road, and within the NCOTA roadways. The existing area roadway infrastructure is adequate for handling this temporary increase in roadway use, and no modifications to these roadways or traffic patterns would be required. Based on the Southern Beltway Project schedule, during the next two years, construction traffic may be required to access the NCOTA from County Lane Road from the north, or Route 1010 from the south. Using these alternative roads would have a negligible increase on construction traffic travel times,
and therefore would not increase construction costs or scheduling. Additionally, these alternative roads are adequate for handling the temporary construction traffic. Construction vehicles traveling to and from NCOTA would ultimately access the NCOTA from Morgan Road. If warranted, flaggers may be utilized to notify oncoming traffic of slower construction vehicles entering or exiting onto Morgan Road. These temporary traffic increases would cease once each expansion phase is completed.

Construction vehicles associated with the Phase 3 expansion would travel on the existing roadways in the northern portion of the property; these roadways are adequate to handle the temporary construction traffic and would not require physical alternation or traffic pattern modifications. Prior to traveling through the NCOTA, the construction contractor would coordinate with the NCOTA Caretaker or Administrator to ensure construction vehicle traffic through the cemetery does not disrupt the solemnity of committal services and processions. Additionally, if required, flaggers would be utilized to notify oncoming traffic of slower construction vehicles entering or exiting Morgan Road from the construction areas.

Construction vehicles associated with potential future expansion phases in the southern portion of the property would initially travel over unimproved ground, until such time that a roadway network is established. Similar to the Phase 3 expansion management measures, construction vehicles associated with future expansion phases would be scheduled and coordinated to avoid causing traffic to visitors or area roadways.

To ensure that construction vehicles do not degrade the quality of the existing or planned future roadways within the NCOTA, gravel pads would be established at the exit of each construction area to ensure dirt is removed from construction vehicle tires before traveling on the cemetery roadways.

Therefore, construction activities associated with the Proposed Action would have a short-term, direct, negligible adverse impact on transportation and parking within or in the vicinity of the NCOTA.

**Operation.** Operation of the Phase 3 expansion and potential future expansion areas would generate a minor increase in visitor traffic. By the time the new burial areas are available to accept interments, the Southern Beltway Project improvements would be complete or nearly so (by 2020); including the new interchange leading directly to the NCOTA and improvements to Morgan Road. This would enable visitors to travel on I-79 to reach the NCOTA without having to use smaller arterial roadways. Therefore, the increase in visitor traffic would have no or a negligible impact on these smaller, local area roadways.

The expanded parking areas near the Honor Guard at Committal Shelters one and two would be expanded to accommodate eight-to-ten cars at each location, alleviating parking congestion in those areas. Elsewhere within the NCOTA, visitors would continue to be allowed to park along the roadways near the burial sections. Therefore, operation of the Proposed Action would have a long-term, direct, negligible beneficial impact on transportation and parking.

### 3.14.2.2 No Action

No changes to transportation or parking at the NCOTA would occur under the No Action alternative; therefore, no impacts would occur. Baseline conditions would remain, as described above. However, the Southern Beltway Project would still proceed and independently provide benefits to visitors traveling to the NCOTA.
3.15 Utilities

As part of the 2001 EA for site selection and development of the NCOTA, the VA analyzed utility systems and concluded that all utility systems had adequate capacity to support operations (VA, 2001). Subsequent development of NCOTA required utilization of utilities (electric, sanitary waste, potable water), and this utilization has not caused any reported impacts on utility service levels to others in the surrounding community. Operation of the Proposed Action would require increased utilization of the water utility. Therefore, this section focuses on the analysis of this utility only.

3.15.1 Existing Environment

The NCOTA purchases potable tap water from Pennsylvania American Water to irrigate approximately 22-acres of landscaped areas of the Phase 1 cemetery. As part the prior proposed expansion for the northern portion of the property analyzed in the 2015 SEA, the VA conducted an investigation to identify potential alternative irrigation water sources to meet federally mandated conservation goals (VA, Basis of Design Report Update, July 14, 2015; Irrigation Water Source and Existing Conditions Study, Aqua Engineering, December 11, 2013).

Potential non-potable water sources considered included surface water, recycled water, storm water retention and ground water or a combination of some sources. The investigation concluded that there were no streams or lakes on the property that could provide surface water. Research showed that there were no recycled water sources in the county. Groundwater wells were investigated and were found to not have the capacity or quality to provide water for irrigation. The only potential source was stormwater harvesting. However, it was determined that a pond in the northern portion of the cemetery would only be able to provide enough water to irrigate approximately 5-7 acres of landscaped area. Based on this analysis, the VA ultimately decided to continue using the potable water utility to supply irrigation water for the future expansion in the northern portion of the cemetery.

3.15.2 Environmental Consequences

3.15.2.1 Proposed Action

Construction. Construction of the Proposed Action would not require the consumption of the potable water utility. However, during construction, the existing irrigation system would be extended to the Phase 3 expansion area. This extension would not be anticipated to require potable water service interruptions within NCOTA or in the surrounding community. A similar extension would be made during the construction of potential future expansion phases in the southern portion of the property.

Therefore, construction of the Proposed Action would not be anticipated to cause any adverse impacts on the water utility.

Operation. Operation of the Phase 3 expansion would require approximately 3 million gallons of water annually to irrigate approximately 7 acres of newly landscaped areas. The potable water would continue to be supplied by Pennsylvania American Water.

For the potential future expansion phases, the VA would utilize non-potable water sources for irrigation water to the maximum extent feasible; this could involve constructing a stormwater retention pond (up to 1.5 acres in area) for use as an irrigation water supply source. The remaining irrigation water needed would be supplied by the potable water utility. However, prior to utilizing...
the utility, the VA would contact Pennsylvania American Water to confirm that the utility has adequate capacity to provide the required water volume without causing service interruptions elsewhere at the NCOTA or to other utility customers. The actual volume of irrigation water to be supplied by the utility has not been calculated for the purposes of the analysis in this SEA; the volume would be dependent on future conditions including availability of non-potable sources and the actual area to be irrigated.

Additional measures to reduce the operational irrigation water requirement include planting and maintaining native, non-invasive drought-tolerate turfgrass and other vegetation.

Therefore, operation of the Phase 3 expansion would not have an adverse impact on the potable water utility. Prior to operation of potential future expansion phases in the southern portion of the property, the VA would coordinate with the utility provider to ensure that utilization of the water would not have a significant adverse impact on the quality of service provided to other utility customers.

3.15.2.2 No Action

Under the No Action alternative, no changes to the irrigation system would be required, and no changes to the water utility use levels would occur. Baseline conditions would remain, as described above.

3.16 Environmental Justice

3.16.1 Existing Environment

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

For this analysis, data for minority and low-income population were obtained for the area within a 2.5-mile radius of the NCOTA, all of Washington County, and the Commonwealth of Pennsylvania (Table 11). According to these data, the area within a 2.5-mile radius of the NCOTA has a generally similar minority population as Washington County, but lower than Pennsylvania, and a higher percentage of low-income populations (household income less than $25,000/year) than either the surrounding county or state.
Table 11. Minority and Low-Income Populations

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Population¹</th>
<th>% Minority Population¹,²</th>
<th>Percentage of Population below Poverty Level¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5-mile radius of NCOTA</td>
<td>5,023</td>
<td>4.7%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Washington County</td>
<td>207,298</td>
<td>6.3%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Commonwealth of Pennsylvania</td>
<td>12,784,227</td>
<td>17.9%</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

Notes:
2 – includes all race/ethnicity categories except non-Hispanic White persons

3.16.2 Environmental Consequences

3.16.2.1 Proposed Action

The Proposed Action is not anticipated to have a disproportionate impact on low-income or minority groups in Washington County. The Proposed Action would cause no changes in population, income levels, housing, local tax revenues, or other non-cemetery community services. However, the Proposed Action may provide a temporary increase in local employment if the contractor(s) selected to perform construction activities hire local crew members, which could result in a minor positive socioeconomic impact on the community. Additionally, the Proposed Action would extend the longevity of the NCOTA, thereby avoiding the need for minority or low-income Veterans, their families, and visitors to travel to another National Cemetery outside of southwestern Pennsylvania.

3.16.2.2 No Action

No changes at the site would occur from implementation of the No Action alternative; therefore, minor adverse Environmental Justice impacts to minority and low-income populations would occur, as these populations would have to travel to another National Cemetery outside of southwestern Pennsylvania once NCOTA reaches full capacity. Baseline conditions would remain, as described above.
4.0  CUMULATIVE IMPACTS

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

4.1 Proposed Action

As determined through the analysis provided in Section 3, the Proposed Action would not result in any appreciable (i.e., more than negligible) adverse impacts in context with existing baseline conditions for Air Quality, Geology, Solid and Hazardous Materials, Transportation and Parking, Utilities, and Environmental Justice. Therefore, these resources were not evaluated for potential cumulative impacts. Additionally, resources that would be beneficially impacted by the Proposed Action were not evaluated for potential cumulative impacts, including Aesthetics (operation), Socioeconomics (construction and operation), Community Services (operation), and Transportation and Parking (operation). Resources that have the potential to be cumulatively affected by the Proposed Action, when combined with other past, present, and reasonably foreseeable future projects at the NCOTA, include Aesthetics (construction), Cultural Resources, Topography, Soils, Surface Water (construction), Wildlife and Habitat (construction), Noise (construction), and Wetlands. Therefore, past, present and reasonably foreseeable future projects that could result in effects on these resource areas were considered for analysis.

4.2 Projects Considered for Potential Cumulative Impacts

Beyond the Proposed Action, some other actions within the region could result in cumulative impacts. Within the same timeframe as the next phase of construction and operation of the cemetery, other actions that may have cumulative impacts on the environment include:

- Past and future phases of construction for the NCOTA, to include a maximum of 69,579 interment sites, as well as associated support facilities and roadways (VA, 2018);
- Installation of fiber optic cable, wireless communication network, and other technology upgrades along the length of I-79;
- Reconstruction and upgrade to the intersection of State Route 19 and Valley Brook Road; and
- The Southern Beltway Project elements in the vicinity of the NCOTA, including a 13-mile extension of the Southern Beltway to connect Route 22 and I-79 near Southpointe Town Center; the new interchange at I-79 and Morgan Road; and the safety improvements to Morgan Road.
4.3 Effects of Cumulative Actions on the Proposed Action

No significant, cumulative adverse impacts to any of the resources analyzed in this SEA would be expected from the implementation of the Proposed Action. The following is analysis of cumulative impacts on Aesthetics (construction), Cultural Resources, Topography, Soils, Surface Water (construction), Wildlife and Habitat (construction), Noise (construction), and Wetlands.

**Aesthetics** (construction). Short-term, direct, less-than-significant adverse, cumulative impacts on aesthetics are expected from the construction of the Proposed Action in combination with present and other reasonably foreseeable future actions. The short time-frame (18-24 months) for construction on expansion phases, and the prolonged time period (8-10 years) between phases, would generally avoid overlap with other projects that may also have temporary aesthetic impacts associated with the presence of on-going construction work. The construction of the Phase 3 expansion and the Southern Beltway Project improvements would have the greatest potential for overlap. However, the potential cumulative adverse impacts from these temporary projects would not increase to a significant adverse level. Furthermore, the result of these projects would have long-term beneficial impacts on the aesthetic conditions of the area. The Proposed Action would expand the park-like setting of the National Cemetery to more areas across the NCOTA property, while the Southern Beltway Project would allow for direct access to the NCOTA from I-79. This would decrease vehicle travel on smaller arterial roadways throughout residential neighborhoods. This reduction in traffic would improve the aesthetic condition in those neighborhoods. Therefore, the Proposed Action would result in less-than-significant cumulative adverse impacts on aesthetics.

**Cultural Resources.** The Proposed Action would have potential long-term, direct, less-than-significant adverse impacts on cultural resources, primarily due to the potential to encounter and disturb previously unknown archaeological resources during ground-disturbing construction activities. Cumulatively, the Proposed Action could result in minor adverse impacts if a large number of objects is disturbed within the expansion areas, as well as in the area to the east of I-79 where construction of the interchange of I-79 and Morgan Road will take place as part of the Southern Beltway Project. However, based on prior archaeological investigations at the NCOTA property and information from the PHMC, few if any archaeological resources are anticipated to be encountered during construction of the Proposed Action. Additionally, the Proposed Action incorporates an inadvertent discovery plan to further avoid impacts to any archaeological resources encountered. Therefore, considered cumulatively, the Proposed Action would result in less-than-significant adverse impacts on cultural resources.

**Topography.** The Proposed Action would have a long-term, direct, less-than-significant impact on the topography due to grading of the expansion areas. The topography within the northern portion of the NCOTA property has undergone extensive grading as a result of prior cemetery development. Although additional grading is expected in the southern portion of the NCOTA property, the generally undulating contour of the land would be retained. Other reasonably foreseeable projects in the area would not require as extensive grading. Therefore, considered cumulatively, the Proposed Action would result in less-than-significant adverse impacts on topography.

**Soils.** Construction of the Proposed Action would have a short-term, less-than-significant adverse impact on soils due to increased potential for soil erosion and sedimentation of stormwater runoff. Soils at the NCOTA have undergone modifications as a result of extensive agricultural
activities and development for cemetery purposes. Individually, all construction activities could have short-term, negligible to minor, adverse impacts due to vegetation removal, compaction of soils, and increased soil erosion and sedimentation. Considered cumulatively, the Proposed Action and present and other reasonably foreseeable future actions have the potential for short-term, minor, adverse impacts. Construction activities occurring at the same time and in the same vicinity could have short-term, minor, adverse cumulative effects on soils, but implementation of BMPs in the SESC plan and NPDES permit would be expected to minimize potentially adverse cumulative impacts to less-than-significant levels. Therefore, considered cumulatively, the Proposed Action would result in short-term, less-than-significant adverse impacts on soils.

**Surface Water and Wetlands.** Short- and long-term, less-than-significant cumulative adverse impacts on surface water and wetlands are expected from implementation of the Phase 3 expansion and reasonably foreseeable future expansion phases. For these projects, short-term impacts on water resources, such as erosion and sedimentation and contamination from accidental spills, would be avoided and minimized by adhering to the SESC and NPDES permit BMPs. The increase in impervious surfaces from the Proposed Action and cumulative projects could increase runoff and decrease groundwater recharge and would be considered a minor contribution in the context of the whole watershed, but would not be noticeable on a local level. Should the potential irrigation pond be developed, appropriate mitigation for the impacted wetlands would be determined and performed, as warranted.

Under the Proposed Action, existing watercourse flows would be maintained through the use of roadway bridges. Impacts to wetlands and transition areas would be avoided to the greatest extent possible through project design and implementation of BMPs. In combination with past, present and other reasonably foreseeable future actions, the Proposed Action would result in minor adverse cumulative impacts on water resources.

**Wildlife and Habitat (construction).** Short- and long-term, less-than-significant impacts to wildlife and habitat would occur from implementation of the Proposed Action. Other projects in the vicinity of the NCOTA would not be anticipated to have a significant adverse impact on wildlife and habitat, as these projects would occur in areas that have been disturbed or developed and are not known to contain high value habitat. Additionally, wildlife residing in and around the NCOTA and the cumulative action areas are assumed to be adapted to human activities, including vehicle traffic and noise levels associated with urban areas. Therefore, considered cumulatively, the Proposed Action would result in short- and long-term, less-than-significant adverse impacts.

**Noise.** Short- and long-term, less-than-significant impacts to sensitive noise receptors would occur during construction and operation of the Proposed Action. Noise generated from other project areas would not have a cumulative impact on receptors, as the distance between these individual sources is too great to have an additive effect on noise levels. Therefore, considered cumulatively, the Proposed Action would result in short- and long-term, less-than-significant impacts on sensitive noise receptors.
4.4 Effects of Cumulative Actions on the No Action Alternative

Under the No Action alternative, the conditions at the NCOTA would remain as they currently exist for the foreseeable future. The current burial capacity would not be increased beyond the Phase 1 cemetery, effectively decreasing the longevity of the NCOTA to only a few more years (in context of the availability to accept new burials). This would result in a long-term, significant adverse impact on Community Services (e.g. lack of burial opportunities at a National Cemetery within southwestern Pennsylvania). However, considered cumulatively, this impact and others associated with the No Action alternative are not anticipated to generate additional adverse impacts, or increase the level of adverse impacts, on other resources analyzed in this SEA.

4.5 Potential for Generating Substantial Controversy

The Proposed Action is not likely to cause controversy. The Proposed Action would extend the longevity of the NCOTA for the next several decades. This would be positively perceived by veteran’s and the general public. As discussed in previous sections, no elements of the Proposed Action are anticipated to generate substantial controversy or lead to negative public reaction.

Under the No Action alternative, substantial public controversy would be anticipated due to the lack of burial opportunities at the NCOTA.
5.0 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

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

5.1 Federal, State, and Local Agency Coordination

The VA will notify relevant federal, state, and local agencies and allow them sufficient time to make known their environmental concerns that are specific to this Proposed Action. Comments and concerns submitted by these agencies will be subsequently incorporated into the analysis of potential environmental effects conducted as part of this SEA.

Additionally, concurrent with the publication of the Draft SEA, the VA will mail letters notifying relevant agencies of the publication and availability of the Draft SEA and the opportunity to provide comments during the 30-day review period. Responses from the notified agencies will be documented and addressed in the Final SEA, as warranted. The list of agencies notified is listed in Section 8. Copies of agency correspondence are provided in Appendix B.

5.2 Native American Tribal Coordination

For federal proposed actions, federal agencies are required to consult with federally-recognized Native American tribes in accordance with NEPA, NHPA, NAGPRA, EO 13007 and EO 13175. Based on a review of the U.S. Department of the Interior Bureau of Indian Affairs, there are no federally-recognized Native American Tribes in Pennsylvania. However, during the prior EAs (VA, 2001; VA, 2015), the VA identified and contacted several state and local Native American tribes having possible ancestral ties to the Proposed Action's Region of Interest (i.e., Washington County, Pennsylvania) and invited each tribe to consult on those prior actions. During the preparation of the 2015 SEA, the Delaware Tribe of Indians concurred that the previously identified Tombstone Site should be avoided. Furthermore, they concurred that the “project site” (the entire NCOTA property) had been extensively disturbed and that the potential for disturbing additional cultural resources was low, and they therefore had no objections to the project as it was proposed in 2015 (VA, 2015). The 2018 Master Plan takes into account the Tombstone Site and includes a 75-foot setback from the private cemetery boundary to avoid disturbance to potential previously undocumented gravesites associated with this family cemetery. As such, the VA has concluded that further consultation regarding the Proposed Action is not warranted.
5.3 Public Involvement

The VA, as the federal proponent of this Proposed Action, will make the Draft SEA available for a 30-day public review and comment period. The start of the review period and the process to obtain a copy of the Draft SEA will be announced in a Notice of Availability (NOA) published in the Bridgeville Area News and the Pittsburgh Tribune-Review. The Draft SEA will be published and available for review at the Frank Sarris Public Library in Cecil Township and the Bridgeville Public Library. An electronic copy will be available for download from the VA website at http://www.cem.va.gov/cem/EA.asp.

Comments received during the 30-day public review period will be addressed and documented in the Final SEA. Public comments and an affidavit of the publication of the NOA will be included in Appendix C.
### 6.0 BEST MANAGEMENT PRACTICES AND MONITORING

This section consolidates the avoidance, BMPs, and impact minimization techniques, as previously described in Section 3, to maintain the potential impacts associated with implementing the Proposed Action at less-than-significant adverse levels for each of the environmental resources analyzed in this SEA. A list of environmental permits and approvals potentially required for construction and operation of the Proposed Action is provided in Table 12.

<table>
<thead>
<tr>
<th><strong>AESTHETICS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
</tr>
<tr>
<td>▪ Construct the expansion phases according to the design and sequence presented in the 2018 Master Plan.</td>
</tr>
<tr>
<td>▪ Control fugitive dust emissions by implementing industry-standard construction BMPs, including using water trucks for dust suppression, brushing dirt off construction vehicle tires before leaving the construction site, and installation of gravel pads at the construction exits to further prevent the tracking of dirt onto roadways.</td>
</tr>
<tr>
<td>▪ As needed, install construction privacy fencing between the expansion area and the existing cemetery burial sections to reduce visual impacts to visitors.</td>
</tr>
<tr>
<td>▪ Plant native, non-invasive, drought-resistant vegetation following grading.</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
</tr>
<tr>
<td>▪ Professionally maintain the landscaped areas consistent with existing cemetery operations.</td>
</tr>
<tr>
<td>▪ Conduct maintenance activities (mowing, power-washing, etc.) on a schedule that limits potential disruptions to committal services.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AIR QUALITY</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
</tr>
<tr>
<td>▪ Implement the dust control BMPs described for aesthetics.</td>
</tr>
<tr>
<td>▪ Utilize appropriate construction scheduling (avoid earthwork during extremely windy and dry periods).</td>
</tr>
<tr>
<td>▪ Stabilize exposed soil with vegetation or mulching to minimize erosion and potential dust generation.</td>
</tr>
<tr>
<td>▪ Construction vehicles traveling on paved roads within and outside of the NCOTA would follow posted speed limits. This would minimize dust generated by vehicles and equipment on paved surfaces.</td>
</tr>
<tr>
<td>▪ On unpaved surfaces at the site, vehicle speeds will be maintained at or below 5 miles per hour to prevent dust generation of any exposed soil. Additionally, should any vehicles transport soil from one area of the property to another, the soil will be covered with haul tarps.</td>
</tr>
<tr>
<td>▪ Visually monitor construction activities on a daily basis, and particularly during extended periods of dry weather; implement additional dust control measures as needed.</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
</tr>
<tr>
<td>▪ Keep landscaping and maintenance equipment (mowers, power washers used to clean monuments, etc.) in good working order.</td>
</tr>
</tbody>
</table>
CULTURAL RESOURCES

Construction

- Implement the “Inadvertent Discovery” plan as follows: should human remains or other cultural items as defined by the *Native American Graves Protection and Repatriation Act* (NAGPRA) be discovered during project construction, the construction contractor shall immediately cease work until the VA, a qualified archaeologist, and the SHPO, and The Delaware Tribe of Indians. Tribes are contacted to properly identify and appropriately treat discovered items in accordance with applicable federal and state regulations.

- Establish a 75-foot setback around the boundary of the Tombstone Site (36WH153) to exclude it from all potential future ground disturbing activities.

Operation

- Implement the “Inadvertent Discovery” plan described above for construction.

GEOLOGY, SOILS, AND TOPOGRAPHY

Construction

- Follow NCA Guidelines on slopes and grades. Generally, grade individual burial sections to less than 6%, and pitch roads no greater than 10%.

- Prepare and implement a soil erosion and sedimentation control (SESC) plan as part of the PA DEP General NPDES Permit and approved by the Washington County Conservation District (WCCD). Implement the specified BMPs.

- Prepare and implement a stormwater management plan consistent with Chapter 102 of PA State Code approved by WCCD. Implement the specified BMPs.

- Quickly revegetate disturbed areas following completion of construction activities to minimize the length of time that soils are exposed.

- Minimize the disturbance to or creation of steep slopes (do not exceed 15% slopes).

- Implement spill and leak prevention and response procedures for construction equipment, including maintaining a complete spill kit at the project area, to minimize the potential impact from an accidental fuel release on soil quality. Refuel equipment in designated impervious areas.

- Re-use excess soils on-site to the maximum extent practicable.

- Extract coal if encountered and manage according to PADEP Surface Mining Conservation and Reclamation Act (25 PA Code Section 86.6).

Operation

- Avoid soil erosion and sedimentation of run-off by maintaining stormwater management systems so these systems meet their design requirements throughout operation of the Proposed Action.

- Revegetate exposed soils to prevent erosion and manage excess soils by stockpiling in the designated spoils area.
## HYDROLOGY AND WATER QUALITY

**Construction and Operation**

- Implement the soil erosion and stormwater management system BMPs listed above for Geology, Soils, and Topography.
- Design the Proposed Action expansions to adhere to guidance in the PA Stormwater BMP Manual (363-0300-002, December 2006) for pre- and post-development stormwater management.
- Maintain native, non-invasive, drought-resistant vegetation to prevent exposure of underlying soils.
- Route stormwater runoff from impervious surfaces to designated stormwater management systems. Maintain these in good working order during construction and operation.
- Apply pesticides/herbicides according to label requirements and keep these and road deicing usage to the lowest quantities possible, thereby reducing the potential for water quality impacts.
- Maintain and utilize emergency spill kits to protect surface water and groundwater quality from incidental releases of petroleum-based fluids from construction equipment, and refuel equipment in designated impervious areas away from surface water resources.
- Design crypt fields with an adequate underdrainage system to avoid prolonged contact with groundwater per NCA design requirements.

## HABITAT AND WILDLIFE

**Construction and Operation**

- Avoid impacts to wildlife and habitats by developing only the necessary area needed to establish interment areas, roadways, and other physical infrastructure, as depicted in the 2018 Master Plan. Avoid development and disturbances to the existing preservation area in the northern portion of the property.
- Implement the USFWS Avoidance Measure that prohibits any tree removal from June 1 to July 31. This would ensure there is no prohibited incidental take of northern long-eared bats during the pup season.
### NOISE

**Construction**
- Schedule construction activities for daylight hours during the weekday to minimize potential impacts to nearby residential areas during otherwise quieter evening and weekend periods.
- Maintain mufflers and sound shielding on construction equipment and shut down construction equipment when not in use for more than 5 minutes.
- Schedule notably loud construction work to avoid impacts during memorial services.
- Provide hearing protection to workers for activities that will exceed the OSHA permissible noise exposure level.

**Operation**
- Maintain routine maintenance equipment (e.g. lawn mowers) in good working order.
- Operate maintenance equipment during daylight working hours and away from committal services, thereby maintaining the dignity and solemnity of the NCOTA environment during these services.

### WETLANDS

**Construction and Operation**
- Implement the management measures specified above for Soils and Hydrology and Water Quality to prevent sedimentation of run-off and potential migration to wetlands.
- Follow the design in the 2018 Master Plan for the Phase 3 expansion, which avoids wetlands entirely.
- If the potential irrigation pond is constructed, prior to construction obtain a USACE 404 permit and a PADEP Chapter 105 Water Obstruction and Encroachment permit.

### SOLID WASTE AND HAZARDOUS MATERIALS

**Construction**
- Reuse excess construction materials to the maximum extent practicable. Recycle materials that cannot be reused. Properly dispose of all other materials. Follow NCA Master Construction Specifications for construction waste management.
- Manage coal according to the requirements specified for Soil.
- Should a UST be discovered during potential future expansion phases in the southern portion of the property, the UST and any potentially contaminated soil would be removed and disposed of according to the PADEP Division of Storage Tanks Closure Requirements for Underground Storage Tanks (Technical Guidance 253-4500-601; effective July 8, 2017).

**Operation**
- Manage new solid waste volumes with existing and similar waste streams for collection and off-site disposal.
- Manage herbicide and pesticide use as described under Soils.
<table>
<thead>
<tr>
<th><strong>TRANSPORTATION AND PARKING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
</tr>
<tr>
<td>- If required, utilize flaggers to notify oncoming traffic of slower construction vehicles entering or exiting Morgan Road from the construction entrance.</td>
</tr>
<tr>
<td>- Schedule and route construction vehicle traffic away from roadways within the existing cemetery to avoid interfering with committal service processions.</td>
</tr>
<tr>
<td>- Utilize BMPs specified for Soil to avoid tracking dirt onto area roadways.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>UTILITIES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction and Operation</strong></td>
</tr>
<tr>
<td>- For potential future expansion phases in the southern portion of the property, determine irrigation needs and utilize non-potable water sources to the maximum extent practicable.</td>
</tr>
<tr>
<td>- Coordinate with Pennsylvania American Water (potable water utility) prior to extending potable water utility service lines to irrigation systems for potential future expansion phases in the southern portion of the property. Ensure the utility can supply the water demand without impacting service quality to other customers.</td>
</tr>
<tr>
<td>- Reduce operational irrigation water demand by planting and maintaining native, non-invasive drought-tolerate turfgrass and other vegetation.</td>
</tr>
</tbody>
</table>
Table 12. Potential List of Environmental Permits Required

<table>
<thead>
<tr>
<th>Permit, Approval, or Certification</th>
<th>Responsible Agency</th>
<th>Applicable Criteria</th>
<th>Required Actions</th>
<th>Permitting Schedule</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal or State Environmental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapter 105 Water Obstruction and Encroachment</td>
<td>Pennsylvania Department of Environmental Protection (PADEP)</td>
<td>Required for projects which affect surface waters, wetlands, or sovereign submerged lands. PADEP coordinates review with the United States Army Corps of Engineers (USACE) if the project necessitates it.</td>
<td>Conduct a Pre-Application Meeting with water pollution biologist or other environmental specialist to ensure that the proposed design meets Chapter 105 requirements. The USACE reviewer also attends the pre-application meeting. Submit a Joint Chapter 105/Section 404 Application to the PADEP (and the PADEP submits to the USACE).</td>
<td>1 month to prepare application. Agency review takes approximately 3 months.</td>
<td>The PADEP will respond with an administrative completeness letter which has a 60-day response turn around, then they submit a technical comment letter which also has a 60-day turn-around period.</td>
</tr>
<tr>
<td>PADEP Chapter 102 PAG-02 NPDES General Permit for Stormwater Discharges Associated with Construction Activities</td>
<td>Pennsylvania Department of Environmental Protection (PADEP)</td>
<td>Construction of any facility that disturbs 1 acre or more.</td>
<td>Complete permit application including thermal Impact Analysis and Anti-degradation Analysis and submit to the PADEP. Erosion and sediment control plans are required to be submitted with the Chapter 105 Water Obstruction and Encroachment permit.</td>
<td>One month to prepare, 45 days to achieve permit coverage.</td>
<td>The NOI gets submitted to PADEP Southwest Regional Office in Pittsburgh.</td>
</tr>
</tbody>
</table>

| Other Permits/Approvals | | | | | |
| Pennsylvania Natural Heritage Program (PNHP) Threatened and Endangered Species Consultation | Pennsylvania Game Commission (PGC), Pennsylvania Department of Conservation and Natural Resource (DCNR), Pennsylvania Fish and Boat Commission (PFBC), and US Fish and Wildlife Service (USFWS). | Required for all projects. | Upload project shapefile to PHNP’s online mapper to determine impacts to threatened and endangered species. | Online review takes approximately 15 minutes to a half hour; if further consultation is required, agency response time can be up to two months. | April 5, 2018, PNDI environmental review, the PGC response to the Proposed Action is that it could have potential impacts to state- and federally-listed species which are under the jurisdiction of both the PGC and the USFWS. The PGC defers comments on potential impacts to federally listed species to USFWS. According to the PNDI environmental review, USFWS response to the Proposed Action is that it the proposed project is within the vicinity of known northern long-eared bats maternity roost trees. To avoid prohibited incidental take of northern long-eared bats during the pup season, no tree removal. |

****Assumptions | | | | | LOCAL PERMITS WILL NOT BE OBTAINED.
7.0 LIST OF PREPARERS

U.S. Department of Veterans Affairs Office of Construction and Facilities Management
Mr. Glenn Elliott, Senior PP/M
Environmental Officer

Contractor Staff
Mabbett & Associates, Inc. Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Years of Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Glucksman, MS, LEED AP</td>
<td>Project Manager, Subject-Matter Expert, Document Preparation and Review</td>
<td>13</td>
</tr>
<tr>
<td>H. Bisbee, MS</td>
<td>Senior Document Review Document Preparation</td>
<td>13</td>
</tr>
<tr>
<td>P. Steinberg, PE, LSP</td>
<td>Program Manager, Document Review</td>
<td>25</td>
</tr>
<tr>
<td>K. Samuels, PWS</td>
<td>Subject-Matter Expert, Document Preparation and Review</td>
<td>23</td>
</tr>
<tr>
<td>N. Shearer</td>
<td>Subject-Matter Expert, Document Preparation</td>
<td>13</td>
</tr>
<tr>
<td>M. Martinkovic, MA, RPA</td>
<td>Subject-Matter Expert, Document Preparation</td>
<td>15</td>
</tr>
</tbody>
</table>
8.0  AGENCIES AND INDIVIDUALS CONSULTED

**Federal Agencies**

United States Army Corps of Engineers, Pittsburgh District  
1000 Liberty Avenue  
Pittsburgh, PA 15222-4186

**Natural Resources Conservation Service**  
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United States Department of the Interior  
Fish and Wildlife Services  
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**Fish and Wildlife Service**  
Pennsylvania Field Office  
Lora Zimmerman  
Project Leader/Supervisor  
315 South Allen Street, Suite 322  
State College, PA 16801-4850

**USEPA - Region 3**  
Ms. Karen DelGrosso  
1650 Arch Street  
Philadelphia, PA 19103-2029

**State Agencies**

**Pennsylvania Department of Agriculture**  
George Greig, Secretary  
2301 North Cameron Street  
Harrisburg, PA 17110

**Regional Office**  
Jim Kennedy, Regional Director  
6 McIntyre Road  
Gibsonia, PA 15044-9644

**Bureau of Farmland Preservation**  
Doug Wolfgang, Bureau Director  
2301 N. Cameron St., Room 402  
Harrisburg, PA 17110-9408

**Pennsylvania Department of Environmental Protection**  
E. Christopher Abruzzo, Secretary  
Rachel Carson State Office Building  
400 Market Street  
Harrisburg, PA 17101

**Southwest Regional Office**  
Sue Malone, Director  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745

**Pennsylvania Department of Military and Veterans Affairs**  
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Bldg. S-0-47, FTIG  
Annville, PA 17003

**Pennsylvania Historical and Museum Commission**  
James M. Vaughn, Executive Director  
300 North Street  
Harrisburg, PA 17120

**Pennsylvania Bureau for Historic Preservation**  
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**Pennsylvania Department of Conservation and Natural Resources**  
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Harrisburg, PA 17105-8767

**Pennsylvania Natural Heritage Program**  
Rachel Carson State Office Building, 6th Floor  
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Harrisburg, PA 17105-8767
Chapter 8. Agencies and Individuals Consulted

**Bureau of Forestry**  
**Pennsylvania Natural Diversity Inventory**  
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Harrisburg, PA 17105-8552

**Pennsylvania Bureau of Forestry**  
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**Pennsylvania Department of Transportation**  
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**County Agencies**

**Washington County, Pennsylvania**

**Historical Society**  
Jim Ross  
49 East Maiden Street  
Washington, PA 15301  
Chad Roule, Executive Director Agricultural Land Preservation Program

**County Planning & Development Department**  
Lisa L. Cessna, Executive Director  
Courthouse Square  
100 W. Beau St., Suite 701  
Washington, PA 15301

**Local Agencies**

**Cecil Township**  
Donald A. Gennuso, Township Manager  
George Augustine, Chairman, Zoning, Building, Planning & Zoning Department  
Bill Bottorff, Director, Public Works  
Shawn F. Bukovinsky, Police Department Chief  
Janet DeFelice, Tax Collector  
3655 Millers Run Rd.  
Cecil, PA 15321

**Utilities**

**Electric- FirstEnergy Corp.**  
76 South Main Street  
Akron, OH 44308

**Gas- People’s Natural Gas**  
PO Box 535323  
Pittsburgh, PA 15253-5323

**Water- Pennsylvania-American Water Company**  
800 W. Hershey Park Drive  
Hershey, PA 17033
9.0 REFERENCES


Chapter 9. References


10.0 GLOSSARY

Sources:


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

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

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

Attainment area: An area that the 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 conforms with the SIP.

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

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

Cumulative effect (cumulative impact): The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
Decibel (dB): A unit for expressing the relative intensity of sounds on a logarithmic scale from zero for the average least perceptible sound to about 130 for the average level at which sound causes pain to humans. For traffic and industrial noise measurements, the A-weighted decibel (dBA), a frequency-weighted noise unit, is widely used. The A-weighted decibel scale corresponds approximately to the frequency response of the human ear and thus correlates well with the loudness perceived by people.

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

Endangered species: Plants or animals that are in danger of extinction through all or a significant portion of their ranges and that have been listed as endangered by the U.S. Fish and Wildlife Service 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 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, melted snow, 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 (40 CFR §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 – Environmental Survey Reports
Appendix B – Regulatory Communications
Appendix C – Public Comments
Appendix A – Environmental Survey Reports
Appendix B – Regulatory Communications
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