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SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT ABSTRACT

Lead Agency for the EA: U.S. Department of Veterans Affairs (VA)

Title of Proposed Action: Proposed Phase 1 Construction of Pikes Peak National Cemetery, El Paso County, Colorado

Affected Jurisdiction: El Paso County Assessor's Parcel 5500000384, Drennan Road, Colorado Springs, Colorado

Document Designation: Final Site-Specific Environmental Assessment

Prepared by: Marstel-Day, LLC

Point of Contact: Attn: Mr. Glenn Elliott, Environmental Engineer
Office of Construction & Facilities Management (CFM)
425 I Street NW, Washington, DC 20001
glenn.elliott@va.gov

This Site-Specific Environmental Assessment (SEA) identifies, analyzes, and documents the potential physical, environmental, cultural, and socioeconomic impacts associated with the United States (U.S.) Department of Veterans Affairs (VA) National Cemetery Administration (NCA) Proposed Action for the Phase 1 construction and management of the Pikes Peak National Cemetery in El Paso County, Colorado. The VA acquired the 374.3-acre cemetery site in July 2012 after a Final Programmatic EA (PEA) was completed. The Final PEA analyzed the potential environmental effects of acquiring the site for the new National Cemetery and, to a lesser extent and based on general design information available at that time, of constructing and operating a National Cemetery at that selected site. This SEA is “tiered” from the July 2012 PEA to more precisely analyze, based on the design, the site-specific potential environmental effects that could occur at the site and within the region of influence (ROI).

The purpose of the Proposed Action is to enable the VA to provide eligible veterans and their families in southern Colorado with a new National Cemetery of sufficient size and capacity to serve the projected needs in the southern Colorado region for the next 10 years. The Proposed Action is needed to meet the VA NCA goal of providing eligible veterans with reasonable access to VA burial options.

This SEA evaluates two (2) alternatives in depth: the Preferred Alternative and the No Action Alternative. The Preferred Alternative is to implement Phase 1 of the VA’s preferred design and operation of a new VA National Cemetery in southern Colorado. The new VA National Cemetery would be constructed in phases: the first phase, approximately 65 acres, would be constructed starting in 2017. Under the No Action Alternative, the proposed new VA National Cemetery would not be developed. This alternative reflects the status quo and serves as a baseline against which the effects of the Proposed Action can be evaluated.

This SEA evaluates possible effects to aesthetics, air quality, geology and soils, hydrology and water quality, floodplains and wetlands, wildlife and habitat, cultural resources, noise, utilities, transportation and parking, and cumulative effects. Technical resource areas that were eliminated through the PEA process are discussed in Section 1.2. This SEA concludes that there would be no significant direct, indirect, or cumulative effects on the local environment or quality of life associated with implementing the Preferred Alternative.
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EXECUTIVE SUMMARY

Introduction
This Site-Specific Environmental Assessment (SEA) has been prepared to analyze and evaluate the potential effects of actions associated with the Phase 1 construction and management of the proposed Pikes Peak National Cemetery in El Paso County, Colorado. This SEA is prepared in accordance with the National Environmental Policy Act of 1969 (NEPA; 42 United States Code [U.S.C.] 4321 et seq.), the President’s Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508), 38 CFR Part 26 (Environmental Effects of the Department of Veterans Affairs Actions), and the VA’s NEPA Interim Guidance for Projects (VA 2010).

This SEA is “tiered” from a previously prepared Programmatic Environmental Assessment (PEA), finalized in July 2012, which identified, analyzed, and documented potential impacts of selecting and acquiring the 374.3-acre site for a new VA National Cemetery in southern Colorado. The PEA analyzed the potential environmental effects of acquiring the cemetery site for this Proposed Action and, to a lesser extent and based on general design information available at the time, of constructing and operating a VA National Cemetery at the selected site. The Final PEA indicated that the VA would prepare this subsequent, tiered SEA to more precisely analyze and evaluate the potential effects of the construction and operation of Phase 1 of the proposed Pikes Peak National Cemetery at the selected site, when site-specific design information was available.

Purpose of and Need for the Proposed Action
The purpose of the Proposed Action is to enable the VA to provide eligible veterans and their families in southern Colorado with a new National Cemetery of sufficient size and capacity to serve the projected needs in the southern Colorado region for the next 10 years.

The Proposed Action is needed to meet the VA National Cemetery Administration (NCA) goal of providing eligible veterans with reasonable access to VA burial options.

Proposed Action and Alternatives Considered
In accordance with NEPA and CEQ regulations for implementing NEPA, alternatives to the Proposed Action must be considered. However, detailed analysis is only required for those alternatives that reasonably fulfill the purpose of, and need for, the Proposed Action. As such, this SEA only examines the Proposed Action (the Preferred Alternative) and the No Action Alternative, as required by NEPA.

Following the acquisition of the property on July 31, 2012, the VA initiated an extensive, five-step master planning process to determine the optimal configuration of the proposed National Cemetery. As part of that master planning process, the VA identified 10 screening criteria to evaluate the physical, operational, and location requirements of the Proposed Action, as well as cost, environmental issues, and other factors. Satisfaction of the VA's screening criteria would provide locations and facilities best suited to meet the purpose of, and need for, the Proposed Action, while minimizing overall project costs and environmental effects.
Since the inception of the project, the VA has worked with the architects and engineers responsible for designing the project to identify and evaluate a range of design alternatives. Through the five major iterations of the design process, the VA evaluated the design alternatives and incorporated the design options that best met the VA's screening criteria and needs. Throughout the design process, the VA strove to avoid sensitive environmental resources, such as protected species habitat, wetlands, and floodplains. The Proposed Action design avoids all of these resources to the greatest extent practicable.

Two alternatives are analyzed in-depth in this EA, the Preferred Alternative and the No Action Alternative, described in the following sections.

- **Preferred Alternative.** The VA's Proposed Action, analyzed in this SEA as the Preferred Alternative, is to develop the first phase of Pikes Peak National Cemetery on 65 acres of a 374.3-acre site in unincorporated El Paso County, Colorado. Under the Preferred Alternative, the initial phase (Phase 1) of the Proposed Action would consist of development of approximately 65 acres on the northern portion of the cemetery site to provide for approximately 10 years of burial capacity. Construction of the proposed cemetery is anticipated to be phased-in over several years. Upon completion of Phase 1 cemetery construction, the site would include an estimated 13,300 total interment sites, including 4,500 double-depth pre-placed crypts, 4,500 columbarium niches, 650 plots for private vaults, 650 oversized plots, and 3,000 in-ground sites for cremated remains. The project would also include memorial walls, an ossuary, a hybrid burial area, a memorial walkway, an entrance area, a flag/assembly area, committal shelters, an administration and public information building, a maintenance facility, a road system, associated utilities, and infrastructure and landscaping. Future phases of cemetery development would be analyzed under separate NEPA documents prior to the construction and operation of those phases.

- **No Action Alternative.** Under the No Action Alternative, the Proposed Action would not be implemented. Veterans and their families residing in southern Colorado would continue to be unserved; in many cases, this would continue to require many veterans and their families to travel more than 75 miles to reach a National Cemetery. The distribution of National Cemeteries in the region would continue to be unequal, and the VA would not be in compliance with the requirements of the Servicemembers Civil Relief Act. The absence of a National Cemetery in southern Colorado could prevent eligible veterans and their families from obtaining the earned benefit of a no-cost burial at a National Cemetery, resulting in undue hardship and lost recognition to those individuals.

The Preferred Alternative provides the option that would advance the requirements of the VA. The No Action Alternative would not enable the VA to provide adequate, long-term National Cemetery facilities in southern Colorado. The No Action Alternative reflects the status quo and serves as a benchmark against which the effects of the Proposed Action can be evaluated and was retained to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required under the CEQ Regulations (40 CFR 1502.14).
Affected Environment and Environmental Consequences

The affected environment of the Preferred Alternative and its immediate surroundings, or the region of influence (ROI), was evaluated for 10 resources and is further discussed in Chapter 3 of this SEA. The Preferred Alternative and the No Action Alternative are evaluated to determine their potential direct, indirect, and cumulative effect(s) on the physical, environmental, cultural, and socioeconomic aspects of the Proposed Action’s ROI. The VA determined that five technical resource areas were sufficiently analyzed in the PEA and did not require further analysis in this SEA (i.e., land use, solid and hazardous waste, socioeconomics, community services, and environmental justice). Table ES-1 presents the resource categories analyzed within this SEA, including anticipated impacts.

<table>
<thead>
<tr>
<th>Resource Area</th>
<th>Preferred Alternative</th>
<th>No Action Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>□◊</td>
<td>○</td>
</tr>
<tr>
<td>Air Quality</td>
<td>◊</td>
<td>□</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>□◊</td>
<td>○</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>◊</td>
<td>○</td>
</tr>
<tr>
<td>Floodplains and Wetlands</td>
<td>◊+</td>
<td>○</td>
</tr>
<tr>
<td>Wildlife and Habitat</td>
<td>◊+</td>
<td>○</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>□</td>
<td>○</td>
</tr>
<tr>
<td>Noise</td>
<td>◊</td>
<td>○</td>
</tr>
<tr>
<td>Utilities</td>
<td>□◊</td>
<td>○</td>
</tr>
<tr>
<td>Transportation and Parking</td>
<td>□</td>
<td>○</td>
</tr>
</tbody>
</table>

Notes: + = Beneficial effect; ○ = No effect; □ = Negligible effect; ◊ = Minor adverse impact; ● = Moderate adverse impact; ★ = Potentially significant adverse impact

Agency and Public Involvement

A public meeting (initial scoping meeting) was held and hosted by the VA on October 21, 2015, from 6:00 until 7:00 p.m. at the Retired Enlisted Association located at 834 Emory Circle, Colorado Springs, Colorado. The intent of the meeting was to introduce the local community to the VA team, explain the general NEPA process, and gather initial public input and concerns about the Proposed Action. The VA addressed all questions and comments and explained that these and other concerns would be taken into account in the design, including local government concerns.
The Draft SEA was published and distributed for a 30-day public comment period, as announced by a Notice of Availability (NOA) published in the *Pueblo Chieftain* and the *Gazette* newspapers in May and June 2016. During this period, review copies of the Draft SEA were made available for public review at the Ruth Holly and Sand Creek branches of the Pikes Peak Library District, and on the VA website (http://www.cem.va.gov/EA.asp). As part of the public review process, letters were distributed to local, state, and federal agencies and Tribal entities as identified in Chapter 10 of this SEA.

Comments received within the 30-day public comment period have been reviewed and addressed, as warranted, in the Final SEA. Agency comments received included concurrence from the U.S. Fish and Wildlife Service that no federally listed species are known or likely to occur within the project area. Of the Tribal entities consulted, the VA received comments only from the Comanche Nation and the Cheyenne and Arapaho Tribes. Both entities indicated that no properties were identified in the vicinity of the proposed project site; however, they requested further consultation in the event of inadvertent discoveries during project implementation.

During the development of the Draft SEA, the VA consulted with the Colorado State Historic Preservation Office (SHPO) in accordance with Section 106 of the National Historic Preservation Act. Due to the presence of cultural material previously identified at the project site, the SHPO recommended shovel testing of the site to clarify artifact concentrations and gather additional information regarding the site’s National Register of Historic Places (NRHP) significance and integrity. Based on these recommendations, the VA developed a work plan for an archaeological resources field survey of the site. Following SHPO acceptance of the work plan in May 2016, the field survey was conducted in November and December 2016. The analysis did not indicate NRHP eligibility of the project site, and no further field survey work was recommended. The Colorado SHPO issued verbal concurrence with this finding on February 28, 2017, indicating No Historic Properties Affected. In consideration of previous findings and the possibility of inadvertent discoveries during project implementation, the VA would require an inadvertent discovery plan in the construction work plan for the Proposed Action.

**Conclusions**

No significant direct, indirect, or cumulative effects on the local environment or quality of life would be anticipated as a result of the implementation of the Preferred Alternative. As a result of the analysis of impacts in this SEA, which are summarized and incorporated by reference herein, it is the conclusion of the VA that, with the implementation of appropriate management and minimization measures included in Chapter 5, the Proposed Action would not generate significant public controversy nor have a significant adverse impact the quality of the natural or human environment within the meaning of Section 102(2)(c) of NEPA. Therefore, preparation of an environmental impact statement is not required.
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1 INTRODUCTION

This Site-Specific Environmental Assessment (SEA) has been prepared to identify, analyze, and document potential physical, environmental, cultural, and socioeconomic effects associated with the Department of Veterans Affairs’ (VA) Proposed Action: the Phase 1 construction and operation of a National Cemetery on a 374.3-acre site (the site) on Drennan Road in Colorado Springs, Colorado (Figure 1-1). Construction of the National Cemetery would be initiated in 2017 and would be completed in 21 phases, with each phase analyzed under separate NEPA documents prior to construction and operation.

This SEA builds upon the Final Programmatic EA (PEA) completed by the VA on July 17, 2012 (further described in Section 1.1), as part of the site acquisition process. The Final PEA analyzed the potential environmental effects of acquiring a site near Colorado Springs for this Proposed Action and, to a lesser extent, was based on general design information available at that time to construct and operate a National Cemetery at that selected site. The Final PEA identified that the VA would prepare this SEA to more precisely analyze and evaluate the potential effects of construction and operation of the proposed National Cemetery at the selected site, when site-specific design information became available. The Final PEA also identified environmental best management practices (BMPs) that have been subsequently incorporated into the VA’s site-specific Proposed Action.

This SEA analyzes and evaluates the potential effects of construction and operation of the proposed National Cemetery using the latest design information for the project, which was unavailable at the time the Final PEA was prepared. This SEA is prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [U.S.C.] 4321 et seq.), the President’s Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Environmental Regulations [CFR] Parts 1500–1508), 38 CFR Part 26 (Environmental Effects of the Department of Veterans Affairs Actions), and VA’s NEPA Interim Guidance for Projects (VA 2010).

1.1 Background

On July 17, 2012, the VA finalized a PEA that identified, analyzed, and documented the potential physical, environmental, cultural, and socioeconomic effects associated with VA’s proposed selection and acquisition of a site for the future establishment of a National Cemetery in El Paso County, Colorado.

Through this PEA process, the VA selected and acquired a 374.3-acre site located on Drennan Road in Colorado Springs, Colorado. The PEA’s Proposed Action primarily included the selection and acquisition of a site that is suitable for future construction of a National Cemetery. The PEA assessed the potential effects of that Proposed Action and generally assessed the potential effects of constructing and operating a National Cemetery at the site. Because a site for the proposed National Cemetery had not yet been selected, the VA had not yet developed a detailed engineering design and could not analyze site-specific potential effects associated with construction and operations of the cemetery.
Figure 1-1. General Location Map of the Proposed Pikes Peak National Cemetery
This SEA is “tiered” from the PEA and analyzes the site-specific, potential environmental effects that could occur at the site and within the Proposed Action’s region of influence (ROI) based on the design. This approach is in full compliance with CEQ Regulations that state that NEPA documents should be “analytic rather than encyclopedic” (40 CFR 1502.2a) and that scoping should be used to “identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3), narrowing the discussion of these issues in the statement [EA] to a brief presentation of why they would not have a significant effect on the human environment or providing a reference to their coverage elsewhere” (40 CFR 1501.7(a)(3)). As such, the VA is using “Incorporation by Reference” per 40 CFR 1502.21 and “Tiering” per 40 CFR 1502.20 to reduce the volume of this SEA and rely on the information previously developed and analyzed as part of the PEA.

1.2 Resources Evaluated but Not Carried Forward

Since the publication of the Final PEA in July 2012, the VA has undertaken additional engineering design. Based on these additional, now-available data, the VA has prepared this SEA to analyze and evaluate more precisely the potential effects of the construction and operation of the proposed VA National Cemetery. Through this process, and by incorporation of BMPs and environmental management measures identified in the Final PEA into the site-specific Proposed Action, the VA determined that previous analyses hold true and therefore the following technical resource areas do not require further analysis in this SEA:

- Land Use
- Solid and Hazardous Materials
- Socioeconomics
- Community Services
- Environmental Justice

Table 1-1 provides a summary of BMPs included in this Proposed Action, as described in the Final PEA (VA 2012). Table 1-2 identifies all technical resource areas considered per VA NEPA Interim Guidance for Projects, dated September 30, 2010 (VA 2010), and succinctly provides the rationale as to why each technical resource area was either retained for further analysis or eliminated from this SEA, referencing the Final PEA, where appropriate.
Table 1-2. Technical Resource Areas Retained for, or Eliminated from, Further Analysis

<table>
<thead>
<tr>
<th>Technical Resource Area</th>
<th>Retained for Further Analysis</th>
<th>Reasoning</th>
</tr>
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<tbody>
<tr>
<td>Aesthetics</td>
<td>Yes</td>
<td>The Final PEA concluded that visual effects associated with the conversion from the open grass prairie rangeland to a managed landscape with a sustainable mix of turf and native grasses and shrubs would be less than significant. The SEA analyzes additional site-specific construction and operation information. See Section 3.2 for more information.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Yes</td>
<td>The Final PEA concluded less-than-significant air quality effects from construction activities, including vehicle emissions and fugitive dust, and from operation of emergency generators and local visitors’ vehicle emissions. The SEA analyzes additional site-specific final construction and operation information. See Section 3.3 for a detailed discussion.</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>Yes</td>
<td>The Final PEA concluded less-than-significant effects on soils and geology. The project site is essentially a broad rolling plain that would require no significant, major, earth-moving operations. The existing topography would be altered slightly by grading for roads, construction of buildings, and burial sites. During construction, a variety of methods would be used to control soil erosion, including phasing the project into small areas of disturbance and implementing an approved soil erosion and sedimentation plan. Immediately following construction, exposed areas would be seeded with naturally occurring vegetation that would stabilize the soils and minimize erosion. The SEA analyzes additional site-specific construction and operation information, including topography and regional impact of agricultural land conversion. See Section 3.4 for a detailed discussion.</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>Yes</td>
<td>The Final PEA concluded less-than-significant impact from construction and operation on surface water and groundwater, but additional analysis is needed based on final design information. The SEA analyzes additional site-specific construction and operation information, including design avoidance measures, groundwater chemical analyses, and aquifer performance characteristics. See Section 3.5 for a detailed discussion.</td>
</tr>
<tr>
<td>Floodplains and Wetlands</td>
<td>Yes</td>
<td>The Final PEA concluded less-than-significant impacts through implementation of site design to avoid potential wetlands/waters of the United States and modifying the 100-year floodplain. The SEA analyzes additional site-specific construction and operation information, including an on-site survey for federal wetlands. See Section 3.6 for a detailed discussion.</td>
</tr>
<tr>
<td>Technical Resource Area</td>
<td>Retained for Further Analysis</td>
<td>Reasoning</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Wildlife and Habitat</td>
<td>Yes</td>
<td>Construction of the proposed National Cemetery would alter the existing vegetative communities as the site is converted from a shortgrass prairie to a mix of grasses required for water-wise landscape. Potential impacts on the existing wildlife are expected to be temporary and minimal. Similar habitat surrounds the site, so relocation of wildlife species would naturally occur. The SEA analyzes additional site-specific final construction and operation information. See Section 3.7 for a detailed discussion.</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>Yes</td>
<td>An initial cultural resource impact prediction was conducted at the site, providing recommendations for further evaluations to identify any potential historic, cultural, or architectural resources that may exist on the property. Previous analysis indicates the potential of finding resources on the site. Section 3.8 provides a detailed discussion.</td>
</tr>
<tr>
<td>Noise</td>
<td>Yes</td>
<td>Per the Final PEA, only minimal, short-term, effects would occur during construction of the Proposed Action. Long-term, though periodic, noise effects would be anticipated with proposed rifle salutes at funeral ceremonies. Potential noise effects would be reduced or avoided with implementation of the BMPs. The SEA analyzes additional site-specific final construction and operation information. See Section 3.9 for a detailed discussion.</td>
</tr>
<tr>
<td>Utilities</td>
<td>Yes</td>
<td>The Final PEA concluded that there are currently no utilities servicing the site; however, utility provisions were easily and readily available to bring service to the site. The SEA analyzes the temporary and permanent provision of these utility services during construction and operation. See Section 3.10 for a detailed discussion.</td>
</tr>
<tr>
<td>Transportation and Parking</td>
<td>Yes</td>
<td>The Final PEA concluded less-than-significant transportation effects from construction vehicles, and visitor traffic on local roadways during operation. The SEA analyzes additional site-specific construction and operation information. See Section 3.11 for a detailed discussion.</td>
</tr>
<tr>
<td>Land Use</td>
<td>No</td>
<td>Per the Final PEA, no land use effects would be expected to occur at the site with implementation of the Proposed Action. The proposed cemetery project is generally consistent with the existing land use. The VA would comply with all applicable regulations and ordinances during construction of the proposed National Cemetery. As such, this issue is not analyzed in depth in this SEA.</td>
</tr>
<tr>
<td>Solid and Hazardous Materials</td>
<td>No</td>
<td>Per the Final PEA, only minimal effects would occur due to implementation of the Proposed Action. As such, this issue is not analyzed in depth in this SEA.</td>
</tr>
</tbody>
</table>
The VA has determined that the analysis from the Final PEA presented in Table 1-2 remains accurate. This study conforms to recommendations from the Final PEA regarding the retention of technical resource areas for further analysis.

1.3 Regional Location

The subject site is located on the Rolling Hills Ranch in the southeast portion of the city of Colorado Springs. The Rolling Hills Ranch property, which is approximately 1,182 acres of undeveloped land, is situated generally east of Marksheffel Road between Bradley Road and Drennan Road. However, the land has been subdivided to create a 374.3-acre parcel, which would comprise the entire proposed National Cemetery property (Figure 1-2).

1.4 Purpose and Need

The purpose of the Proposed Action is to enable the VA to provide eligible veterans and their families in southern Colorado with a new National Cemetery of sufficient size and capacity to serve the projected needs in the southern Colorado region for the next 10 years.

The Proposed Action is needed to meet the VA National Cemetery Administration (NCA) goal of providing eligible veterans with reasonable access to VA burial options.

In the state of Colorado, there are two National Cemeteries: Fort Lyon National Cemetery, in Las Animas; and Fort Logan National Cemetery, in Denver. Both are open to full burial options. Burial at a National Cemetery is an earned benefit provided to veterans through the VA. The Proposed Action is needed to meet the VA National Cemetery Administration’s goal of increasing burial options in areas that have an unserved veteran population of at least 80,000, as specified by congressional mandate. In addition, the proposed Pikes Peak National Cemetery is needed for the VA to comply with the Servicemembers Civil Relief Act.
Figure 1-2. Site Boundary Map, Pikes Peak National Cemetery, Colorado
1.5 Goals and Objectives

1.5.1 Mission Objectives that Contribute to Veterans Services

The VA has established five goals that define the mission of the NCA (NCA 2013):

- to ensure that burial needs of veterans and eligible family members are met
- to provide veterans and their families with symbolic expressions of remembrance
- to ensure that all VA National Cemeteries are maintained as national shrines
- to educate and empower veterans and their families through outreach and advocacy
- to build the internal capacity to serve veterans, family members, VA employees, and other stakeholders

The NCA further defines the first objective on the assumption that the burial needs of a veteran are met if he or she has reasonable access to burial option, which is defined as “…a first interment option (whether for casketed remains or cremated remains, either in-ground or in columbaria) in a National or State Veterans Cemetery… available within 75 miles of the Veteran’s place of residence.” The VA established a 75-mile service area standard because NCA data show that more than 80 percent of persons interred in National Cemeteries resided within 75 miles of the cemetery at the time of death. The NCA estimated a fiscal year 2010 unserved veteran population of approximately 95,000 living within the southern Colorado area included in the 75-mile radius for this proposed National Cemetery. The new cemetery would provide additional capacity and improved access for veterans and their families (i.e., reduced travel time to a National Cemetery), and would balance the currently unequal geographic distribution of VA National Cemeteries within the state of Colorado. The Proposed Action would provide burial facilities for eligible veterans in southern Colorado who are not currently served by an open National Cemetery, as required under 38 CFR Part 2408.

1.5.2 Sustainable Design Requirements and Goals

As discussed in Section 1.1, the VA selected and acquired the 374.3-acre site in Colorado Springs, Colorado (Figure 1-1 and Figure 1-2) in August 2012 following completion of the Final PEA (VA 2012). The current Proposed Action is to develop this specific site as a National Cemetery, meeting the purpose of and need for the Proposed Action. The overall goals of the Proposed Action as established under the VA sustainable design program, described in the Sustainability Design manual and outlined in Environmental and Sustainability Design Elements (as described in Submission Requirements for National Cemetery Projects), aim to enhance the services that VA facilities provide to the nation’s veterans.

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 in accordance with CEQ NEPA-implementing regulations.

The purpose of this SEA is to inform federal decision makers and the public of the potential environmental effects of the Proposed Action and its considered alternatives, prior to making a federal decision to move forward with the Proposed Action. In this manner, the federal decision makers can make a fully formed decision, aware of the potential environmental effects of the Proposed Action. The intended purposes of this SEA are to
• inform decision makers and the public of the possible environmental effects of the Proposed Action and its considered alternatives, as well as the methods to reduce these effects;
• document the NEPA process;
• allow for public input into the decision-making process; and
• allow for informed decision making by the federal government.

This federal decision making includes identifying the actions that the government would commit to undertake to minimize environmental effects, as required under the NEPA, CEQ Regulations, and 38 CFR Part 26.

The decision to be made is whether, having taken into account potential physical, environmental, cultural, and socioeconomic effects, the VA should implement the Proposed Action and, as appropriate, carry out measures to reduce its effects on resources. Implementation of the BMPs identified in the Final PEA and additional BMPs identified herein, summarized in Table 5-1 and incorporated into the Proposed Action, would ensure that direct, indirect, and significant cumulative effects would not occur.

1.7 Related Environmental Documents

A number of environmental and other documents have been prepared that address activities or locations related to the Proposed Action discussed in this EA. The following documents contain information used in the preparation of this EA and are incorporated by reference:

- Final Programmatic Environmental Assessment of the Proposed Southern Colorado National Cemetery, El Paso County, Colorado, July 2012 (VA 2012)
- Phase I Environmental Site Assessment, Rolling Hills Ranch, Portions of El Paso County Assessor’s Parcel 550000313 Colorado Springs, El Paso County, Colorado, April 27, 2012 (Terracon Consultants, Inc. 2012a)
- Initial Cultural Resource Impact Prediction for the New VA National Cemetery in El Paso County, Colorado (Bugg 2012)
- Section 404 Jurisdictional Area Delineation, Southern Colorado Veterans Cemetery, May 4, 2015 (Atkins Global 2015b)
- Basis of Design Report, Southern Colorado National Cemetery, Phase 1, Master Plan 1 (MP1) Submittal, May 2015
- Basis of Design Report, Southern Colorado National Cemetery, Phase 1, Master Plan 2 (MP2) Submittal, June 2015
- Basis of Design Report, Southern Colorado National Cemetery, Phase 1, Master Plan 3 (MP3) Submittal, July 2015
- MP3 Environmental Submittal, Southern Colorado Veterans Cemetery (Atkins 2015a)
- Basis of Design Report, Southern Colorado National Cemetery, Phase 1, Master Plan 5 (MP5) Submittal, November 2015 (AES Group, Inc. 2015)
- Basis of Design Report, Southern Colorado National Cemetery, Phase 1, Design Development 1, January 2016 (AES Group, Inc. 2016)
2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This chapter provides necessary background information and a description of the Proposed Action and alternatives considered by the VA and eliminated from further detailed analysis for this SEA. NEPA and VA regulations for NEPA implementation require all reasonable alternatives to be rigorously explored and objectively evaluated. The VA’s screening criteria to determine the suitability of new cemetery development proposals are described in Table 2-1.

Table 2-1. Screening Criteria for New Veterans Affairs National Cemetery Development

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive Services</td>
<td>Must not adversely impact veteran support services</td>
</tr>
<tr>
<td>Operational</td>
<td>Must provide the necessary area for construction, maintenance access,</td>
</tr>
<tr>
<td></td>
<td>safe conditions, and facility operations</td>
</tr>
<tr>
<td>Land Use</td>
<td>Must be consistent with previous/current or identified land use</td>
</tr>
<tr>
<td>Environmental</td>
<td>Must minimize impact on existing environmental resources including</td>
</tr>
<tr>
<td></td>
<td>socioeconomic, biological, air, geologic, and hydrologic resources</td>
</tr>
<tr>
<td>Objectives</td>
<td>Meets all project goals described in Section 1.5 of this EA</td>
</tr>
</tbody>
</table>

2.1 Proposed Action

Under the Proposed Action, the VA would develop a National Cemetery on the Drennan Road, El Paso County, Colorado site in 21 phases. The initial phase, Phase 1, would encompass approximately 65 acres and is the focus of analysis in this SEA. In addition to preparing the overall site for subsequent development phases, Phase 1 would include the construction of the early turnover area, first gravesite areas, cemetery roads, entrance, administration and public information center (PIC) building, two committal shelters, two pump houses, honor guard building, and maintenance facility. Each subsequent phase of future cemetery development would add interment sites until the proposed cemetery could accommodate 196,900 total interment sites at full buildout. These future development phases would each be subject to environmental analyses pursuant to NEPA and VA requirements.

Phase 1 would include modification of the Franceville and tributary of Jimmy Camp Creek to potentially eliminate the 100-year floodplain on the site. In addition, grading contours would direct all stormwater flows on the site to a retention pond and avoid entering the wetland on the site. With anticipated drainage improvements, future development phases would include one road crossing over the Franceville floodway to access lands to the south of the floodplain. Some of the larger pieces of the Phase 1 development (e.g., the administration/PIC building, the memorial walkway, and the committal service shelters) are planned with the mountain views in mind. The plans for the site take advantage of the mountain views and arroyos on the site, and preserve existing trees adjacent to the arroyos in order to create a peaceful, quiet area.

The cemetery site currently does not have any utilities—water, natural gas, electricity, telecommunications, or sanitary sewer. The master plan for the cemetery anticipates development to include septic tanks, wells, pump houses, electrical service, and a telecommunications conduit.
2.1.1 Site-Specific National Cemetery Components

2.1.1.1 Cemetery Elements

The proposed National Cemetery would be developed in up to 21 phases. The first phase of initial development (Phase 1) includes approximately 65 acres (see Figure 2-1), and would be constructed in approximately one to three years and in two stages, depending upon the availability of federal funding. Each subsequent phase of cemetery development would occur in approximate 10-year intervals. Figure 2-2 shows the conceptual design for full site buildout.

Figure 2-1. Proposed Phase 1 Draft Development Plan
Figure 2-2. Full Buildout, Pikes Peak National Cemetery, Colorado
In general, the project phasing radiates outward from the administration/PIC facility, then extends south to the other side of the floodway in the future. An outer loop of gravel road, which may be used for construction activities, is provided for maintenance. This network may be extended in the future. Phase 1 development would include the construction of the early turnover area, first gravesite areas, cemetery roads, entrance, administration and PIC building, honor guard building, two committal service shelters, two pump houses, maintenance building, memorial wall and walkway, entrance area and signage, columbarium, and approximately 13,300 interment sites. Construction access to the Phase 1 area would be provided via Drennan Road. Construction of an early turnover burial area (Phase 1A) would be completed in a one-year period in order to allow for burials prior to completion of the permanent Phase 1 facilities in two to three years, depending upon federal funding availability. Phase 1 would provide all facilities necessary to maintain, operate, and provide interment sites for approximately 10 years.

Prior to construction and operation of future phases, a new and separate NEPA analysis would be performed to assess potential impacts and identify any warranted management and/or actions that would minimize impacts for each future phase. Each subsequent phase of future cemetery development would add interment sites until full buildout. Approximate numbers of burial sites at full buildout would include 67,500 double-depth pre-placed crypts; 49,500 columbarium niches; 63,000 in-ground cremation plots; 8,450 private vault plots; and 8,450 oversized crypts. Phase 1 is further divided into a Phase 1A and Phase 1B. Phase 1A, referred to in the master plan as the “early turnover area,” is designed to provide burial sections and temporary support facilities quickly, with usage potentially starting in 2017 (AES Group, Inc. 2015). Consideration has been given to noise and construction traffic while the rest of Phase 1 is being constructed. Construction traffic would be able to access the site at the maintenance facility and travel behind where burials occur. Roads developed as part of Phase 1A would be permanent roads.

Phase 1A would include the following:

- permanent burial sites
  - 2,000 double-depth pre-placed crypts
  - 3,000 in-ground cremains plots
  - 650 plots for private vaults
  - 650 oversized crypts
- entrance road
- flag pole
- cemetery identification sign
- four (4) temporary modular trailers to accommodate administration, public restroom, maintenance, and honor guard functions
- temporary committal service shelter
- temporary assembly area
- irrigation
- utilities
Phase 1B would include the features and buildings necessary to operate the permanent cemetery, and may be ready for use in 2019 (AES Group Inc. 2015). Phase 1B would include the following:

- administration/PIC building with public restrooms and electronic gravesite locator (4,400 gross square feet [gsf])
- maintenance complex (7,600 gsf)
- honor guard building (1,200 gsf)
- two (2) committal service shelters
- two (2) pump houses—one for irrigation water, one for domestic water
- main site entry gateway/fencing along highway access
- memorial walls and walkways
- entry boulevard
- administration/PIC building
- cortege staging area
- visitor and staff parking
- main loop road
- flag and public assembly area
- permanent burial sites
  - one (1) columbarium complex including 4,500 niches
  - 2,500 double-depth pre-placed crypts
- ossuary
- hybrid burial area
- service drives
- all utilities and infrastructure required to service the site

The roadway system that is constructed in Phase 1 would provide for approximately 30 years of burial (AES Group Inc. 2015).

2.1.1.2 Other Site-Specific Elements

**Nighttime Lighting.** Per Leadership in Energy and Environmental Design (LEED®) standards, exterior lighting would be limited in wattage and full cutoff to prevent any night-sky or neighbor light pollution. An outdoor lighting plan has not yet been documented on the site master plan.

**Fencing.** Site fencing along the highway access and around the perimeter for security are likely, but specific fence plans are not documented in the site master plan (location and fence type). The VA would prefer an ornamental fence on the north frontage of the cemetery cite, and a barbed wire security fence on the remaining three sides (AES Group, Inc. 2015).

**Use.** Areas of the site that are not developed would be maintained by the VA. Low-intensity landscaping is planned for outlying areas that would experience infrequent or no public interaction in order to preserve the existing landscape and protect it from grading and vehicular traffic during new construction. Landscaping in the low-intensity landscape areas would aim to restore and reestablish short and medium-grass prairie species (AES Group, Inc. 2015).

**Avoidance of Environmentally Sensitive Areas.** Based on the analyses and findings of the Final PEA (VA 2012), and review of the design, the VA has designed the proposed National Cemetery to avoid on-site jurisdictional waters of the United States (WOTUS), including appropriate buffers around these areas to the greatest extent possible, as well as minimize any modification to the 100-year floodplain.
2.1.1.3 Proposed Use Levels
Upon completion of the Phase 1 development, the National Cemetery would typically be used every day throughout the year. Approximately 240 visitors could be expected on a daily basis. On weekdays, 23 staff would be present on-site. Up to 8 funeral processions per weekday (average 30 cars per procession), generating approximately 240 vehicle round-trips per day on a busy day would be anticipated. The cemetery would be closed to the public at night.

2.1.1.4 Stormwater Management
To accommodate known stormwater management issues at the site, the VA plans to design and construct four active (wet) stormwater retention ponds on the cemetery site. Two of these ponds would be constructed as part of Phase 1, and two areas would be considered future stormwater ponds. These ponds would contain aeration modules to maintain high water quality.

The cemetery master plan includes a stormwater strategy to prevent the discharge of any stormwater from the site for all flooding less than a 500-year flood event. Water would flow southwest across the site and be directed into an artificial channel adjacent to the Franceville Tributary (AES Group, Inc. 2015).

2.1.1.5 Floodplain Management
Two tributaries flow through the National Cemetery site: Corral Tributary, on the west, and Franceville Tributary, to the east (see Figure 3-2). Both have significant channel erosion and are in need of stabilization measures. The architectural and engineering contractor has developed initial plans for bank stabilization on Corral Creek affecting approximately 500 to 600 linear feet of the channel, which is slated to occur during a later phase of development. As mentioned above, bank stabilization is not expected to take place during Phase 1 activities but will be subject to NEPA environmental analysis if implemented during future phases (Day 2016b).

The proposed floodplain management measures are to channelize the Franceville Tributary to run within the existing floodway along the eastern boundary of the property and then west across the property following the current drainage to the Corral Tributary in the southwest corner of the cemetery site. This channelization would redefine the Franceville 100-year floodplain on the site. This floodplain realignment would make available another 40 to 50 acres on the site for future development. All increased flows from stormwater on the cemetery site would be designed to flow to stormwater treatment facilities, with specific siting depending on the final cemetery layout. The attenuated flows from the treatment facilities would be directed into existing drainage routes (AES Group, Inc. 2015).

In the master planning process, the proposed floodway channel was modeled and run using the 500-year flows. The VA is also in the process of obtaining survey data for a Conditional Letter of Map Revision (CLOMR) from the Federal Emergency Management Agency (FEMA) (AES Group, Inc. 2015).

2.1.1.6 Utility Requirements (Electricity, Natural Gas, Telecommunications, Sewer, and Potable and Irrigation Water Supply)
Operation of the proposed National Cemetery would require consumption of utilities from Widefield Water and Sanitation District (WWSD), Mountain View Electric Association (MVEA), Colorado Springs Utilities (CSU), and Century Link. The VA would continue to coordinate with local service providers to ensure that any increase in consumption would remain in accordance
with available local capacities. During preparation of the PEA, the VA contacted service providers about the availability of the respective utilities at the site. Conclusions in the PEA that electricity and telecommunications services would be available and suitable for the National Cemetery remain consistent (VA 2012). Sanitary septic sewerage, natural gas, and water (i.e., potable, irrigation, fire suppression) services are not available from local utility providers. The SEA analysis for these utilities is described as follows:

- **Sanitary Waste Disposal.** There is currently no sanitary sewer service in proximity to the site; therefore, each of the building facilities would be provided with an Individual Sewage Disposal System (ISDS). The ISDS would be sized for average usage based on the number of personnel on site. For major holidays, public bathrooms would be closed and portable toilets would be brought on site. The tanks and fields would be located in proximity to the building served. At some future date, sanitary sewer service is anticipated to be extended to the site as adjacent areas are developed. At that time, depending on location and height of the connection, the sewers may be connected to municipal service.

- **Natural Gas.** An existing gas service is located adjacent to the site on Bradley Road. However, a natural gas service line extension would be necessary to reach the cemetery site, estimated by CSU to cost $400,000 or more, which is cost prohibitive. If gas-powered heating, ventilation, and air condition (HVAC) and water heating equipment is desired, the installation and use of a propane tank would be explored. Gas service would be provided to the site by CSU.

- **Electricity.** No electrical facilities currently exist on the site, but electrical service would be provided to the site by MVEA.

- **Telecommunications.** Telecommunications services would be provided to the site by Century Link.

- **Potable Water, Irrigation Water, and Fire Suppression Water.** No domestic water service currently exists on the cemetery site. Domestic water would be provided by well, treated as necessary, and pumped to each facility. The WWSD would install the groundwater wells, treat the water, and distribute the water throughout the site.

Based on the design irrigation plan, the Phase 1 area includes 27.5 irrigated acres. The estimated watering needs for this area is approximately 186,500 gallons per day (GPD) at peak season and 35.8 million gallons (MG) annually. At the completion of Phases 1 through 3, approximately 36.4 acres would be irrigated, and the peak season daily water usage is estimated to be 246,800 GPD, with an annual water usage of 47.4 MG (AES Group, Inc. 2015).

### 2.1.1.7 Sustainability Considerations

As part of the sustainability criteria for the project, the new VA National Cemetery in southern Colorado is required to demonstrate its performance through an approved, third-party, green building certification program. Therefore, the project would achieve LEED® Silver certification using the United States Green Building Council’s (USGBC) LEED® green building rating system. The Version 3 (LEED 2009 NC) rating system would be employed to achieve the LEED certification. Principals of the “Sustainable Sites Initiative” were considered throughout the design process and incorporated into the site design.
LEED® Silver Certification Strategy. The Phase 1 cemetery design readily complies with nearly all LEED® minimum project requirements, which makes the project eligible to pursue LEED® certification. Due to the physical distance between buildings on the site, multiple, individual LEED® site boundaries and certifications would be required for all proposed buildings to achieve formal LEED® certification. The VA has decided to individually certify and register the administration/PIC and maintenance buildings through the LEED® certification process. The smaller and irregularly occupied honor guard building is not required for the LEED® certification, but sustainable principles and features would be integrated into its design and construction in accordance with Veterans Administration Sustainable Design Manual (May 2014) requirements.

Due to the project site’s rural, green field location and floodplain, the LEED® projects are not eligible for many site infrastructure- and transportation-related points. Subsequently, the VA would need to maximize a variety of other credit opportunities. LEED® certification would require aggressive energy and water conservation strategies, both for the overall site and at each individual building. Potable well water conservation strategies are further handicapped by State of Colorado regulations that prohibit property owners from harvesting and reusing rain and stormwater. The VA plans to implement other sustainability strategies related to landscaping, plumbing fixtures, renewable energy systems, and lighting to enhance the sustainability of the Preferred Alternative.

In accordance with the VA’s sustainability principles and applicable requirements, the proposed facilities would be designed and constructed to comply with the following current and emerging Green Infrastructure/Low Impact Development requirements of federal proposed actions:

- **Executive Order (EO) 13693, Planning for Federal Sustainability in the Next Decade (March 25, 2015).** EO 13693 supersedes both EO 13423 of January 24, 2007, Strengthening Federal Environmental, Energy, and Transportation Management, as well as EO 13514 of October 5, 2009, Federal Leadership in Environmental, Energy, and Economic Performance. This EO expands on the energy reduction and environmental performance requirements for federal agencies identified in EO 13423, which required federal agencies to conduct their environmental, transportation, and energy-related activities, including new construction, in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient, and sustainable manner. It also expands on the requirements of EO 13514, which prioritized sustainability goals and greenhouse gas (GHG) emissions reductions among federal agencies.

- **Section 438 of the Energy Independence Security Act (EISA) (March 3, 2007).** The EISA requires that, for federal development and redevelopment projects, the proponent ensures that any federal facility with a proposed disturbance area exceeding 5,000 square feet maintain or restore the predevelopment hydrology of the property to the maximum extent technically feasible, with respect to temperature, rate, volume, and duration of flow.

- **Energy Policy Act (EPAct) of 2005 (August 8, 2005).** As part of the design process, the VA would specifically comply with the United States Environmental Protection Agency (USEPA) Technical Guidance on Implementing Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA (USEPA 2009).
2.1.2 Environmental Best Management Practices, Permits, and Approvals

Land improvement activities associated with implementation of the Proposed Action would include land clearing, excavation, soil stockpiling, grading, installing various site improvements, creating roads, creating stormwater detention ponds, irrigation ponds, diverting surface flows away from an existing tributary, and extending selected utilities to serve the National Cemetery.

Prior to constructing any component of the Proposed Action, the VA would obtain all required federal and state permits and approvals necessary to comply with applicable laws. Applicable environmental permits required, identified in part through the Final PEA (VA 2012), are described in Chapter 11. Furthermore, the VA would attempt to comply, to the best extent possible, with the guidelines of applicable local permits. In addition, the VA would implement the BMPs listed in Table 1-1 as part of the Proposed Action. These include measures that serve to proactively minimize environmental effects as identified through the PEA and this SEA process.

2.2 Alternatives Analysis

NEPA, CEQ Regulations, and 38 CFR Part 26 require that all reasonable alternatives be rigorously explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified, along with a brief discussion of the reasons for eliminating them. For the purposes of this analysis, an alternative was considered "reasonable" only if it would enable the VA to accomplish the primary mission of providing a suitable National Cemetery site that meets the purpose of, and need for, the Proposed Action. Although the No Action Alternative does not meet the purpose of, and need for, the Proposed Action, this alternative was to be retained because it reflects the status quo and serves as a benchmark against which the effects of the Proposed Action can be evaluated, as required under the CEQ Regulations (40 CFR 1502.14).

2.2.1 Evaluated Alternatives

This EA analyzes two alternatives, the Preferred Alternative and the No Action Alternative, as defined in the following sections.

2.2.1.1 Preferred Alternative

The VA identified one alternative that best met all of the VA's screening criteria, as well as the purpose of, and need for, the Proposed Action. The VA's Preferred Alternative is to construct Phase 1 of a new National Cemetery on approximately 65 acres of the Drennan Road site. It would include the construction of the early turnover area, first gravesite areas, cemetery roads, entrance, administration and PIC building, two committal shelters, two pump houses, honor guard building, and maintenance facility. The Preferred Alternative is described in detail in Section 2.1 and shown in Figure 2-1.

2.2.1.2 No Action Alternative.

Under the No Action Alternative, the Proposed Action would not be implemented. Veterans and their families residing in southern Colorado would be unserved in the future; in many cases, this would require veterans and their families to either travel more than 75 miles to reach a National Cemetery in Colorado or to use a private cemetery for burials. The distribution of National Cemeteries in the region would continue to be unequal, and the VA would not be in compliance with the requirements of the Servicemembers Civil Relief Act. Furthermore, the No Action Alternative would create a hardship for the survivors of deceased veterans for attending the funerals and for grave visitations, because of the distances between homes and the burial sites.
If veterans and their families must resort to private burials, they are deprived of the honor and privilege bestowed upon them by a grateful nation for their service to their country.

Although the No Action Alternative does not meet the purpose of, and need for, the Proposed Action, this alternative was retained, because it reflects the status quo and serves as a benchmark against which the effects of the Proposed Action can be evaluated, as required under the CEQ Regulations (40 CFR 1502.14).

2.2.2 Alternative Eliminated from Detailed Consideration

Since the inception of the project, the VA has worked with the architects and engineers responsible for designing the project to identify and evaluate a range of design alternatives. Each of the design alternatives that were considered were evaluated against the NCA design guide. Through the five major iterations of the design process (MP1 through MP5), the VA evaluated the design alternatives and incorporated the design options that best met the VA’s screening criteria and needs. Throughout the design process, the VA ensured that each design alternative that was considered avoided sensitive environmental resources, such as protected species habitat and wetlands, per CEQ guidance. The proposed design avoids these resources to the greatest extent practicable. Where such was impracticable, as was the case for the floodplains on site, the proposed design includes measures that improve the predictability of the site’s flood regime.

Some of the major design features and alternatives that were considered and dismissed from detailed consideration are listed in the following paragraphs.

**Stormwater Ponds and Buffers.** Early designs called for different numbers of stormwater management ponds and locations. The VA was able to limit development in the areas adjacent to the stormwater management ponds. As a result, the amount of undeveloped buffer area around these features has been maximized in the final design to reduce stormwater runoff and generation and improve the quality of stormwater.

**Administration/PIC Building.** Early floor plans for the administration/PIC building have been revised to provide enhanced views to both visitors and facility occupants, to provide appropriate functional adjacencies, and to maintain the building footprint at 4,400 gsf.

**Location of Buildings and Structures.** Early designs called for different locations for the administration and PIC building, maintenance building, flag assembly area, and other memorial features, resulting in conflicting traffic patterns between memorial activities and administrative functions. The final design carefully places administrative and maintenance structures in locations that enhance memorial activities and views.

By nature of the design process, design alternatives were constantly being assessed for impacts on the technical resource areas. They were eliminated or revised to avoid effects, and thus these alternatives and many other minor changes were not reviewed individually against each resource area in this SEA.
3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Scope of Analysis and Analytical Approach

This chapter describes the baseline (existing) physical, environmental, cultural, and socioeconomic conditions at the proposed National Cemetery site near Colorado Springs in El Paso County, Colorado, and its general vicinity, with emphasis on those resources potentially affected by the Proposed Action or alternatives.

3.1.1 Resources Evaluated but Not Carried Forward

As described in Section 1.2, through the PEA process and by incorporating BMPs identified in the Final PEA into the site-specific Proposed Action, the VA determined that the following technical resource areas were sufficiently analyzed in the Final PEA and do not require further analysis in this SEA:

- Land Use
- Solid and Hazardous Materials
- Socioeconomics
- Community Services
- Environmental Justice

The results of the Final PEA (VA 2012) for these resources are incorporated by reference in this SEA.

3.1.2 Resources Evaluated and Carried Forward

Under each of the remaining technical resource areas, the potential direct and indirect effects of implementing the Preferred Alternative and the No Action Alternative are identified.

In this SEA, effects are identified as either significant, minor (i.e., common effects that would not be of the context or intensity to be considered significant under the NEPA or CEQ Regulations), negligible effect (an effect that is not easily detectable and very minor), or no effect. Where appropriate and clearly discernible, each effect is identified as either adverse or beneficial. CEQ regulations specify that in determining the significance of effects, consideration must be given to both context and intensity (40 CFR 1508.27). Context means the geographic, social, and environmental circumstances within which the project might have effects. The regulations refer to:

- society as a whole, defined as including all human society and the society of the nation;
- the affected region;
- affected interests, such as those of a community, Native American tribe, or other group; and
- the immediate locality.
Intensity is the severity of the potential impact considered in context. The regulations direct agencies to consider

- both beneficial and adverse impacts;
- impacts on human health and safety; and
- impacts on an area’s unique characteristics, such as historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, and ecologically critical areas.

In this SEA, the significance of potential direct, indirect, and cumulative effects has been determined through a systematic evaluation of each considered alternative in terms of its effects on each individual technical resource area. Significance criteria for technical resource areas considered in depth in this SEA are listed below. It should be noted that any one of these effects would not necessarily indicate a significant impact, as significance must be considered in the context of overall impact to the resource area, along with management measures used to reduce adverse effects.

- **Aesthetics.** An alternative could significantly affect visual resources if it resulted in abrupt changes to the complexity of the landscape and skyline (i.e., in terms of vegetation, topography, or structures) when viewed from points readily accessible by the public.

- **Air Quality.** A project could have a significant air quality effect if it would result in emissions that exceed applicability thresholds, be regionally significant, or contribute to a violation of any federal, state, or local air regulation.

- **Geology and Soils.** If an alternative would result in an increased geologic hazard or a change in the availability of a geologic resource, it could have a significant effect. Such geologic and soil hazards would include seismic vibration, land subsidence, and slope instability.

- **Hydrology and Water Quality.** If an alternative would result in a reduction in the quantity or quality of water resources for existing or potential future use, it could have a significant effect. A significant effect could occur if the demand exceeded the capacity of the potable water system or if the action resulted in reduced water quality that violated applicable state or federal water quality standards.

- **Floodplains and Wetlands.** An alternative could have a significant effect on water resources if it would cause substantial flooding or erosion, if it would subject people or property to flooding or erosion, or if it would adversely affect a significant water body, such as a stream, lake, floodplain, or coastal zone. The measurable degradation of wetlands could also be significant.

- **Wildlife and Habitat.** The effect of an alternative on biological resources and ecosystems could be significant if it would disrupt or remove any endangered or threatened species or its designated critical habitat. The loss of a substantial number of individuals of any plant or animal species (sensitive or nonsensitive species) that could affect the abundance or diversity of that species beyond normal variability could also be considered significant.

- **Cultural Resources.** An adverse effect on historic properties occurs when an undertaking alters (directly or indirectly) any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that diminishes the integrity of
the property’s location, design, setting, materials, workmanship, feeling, or association. An adverse effect is not considered significant if the federal agency, in consultation with the State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), and other consulting parties, resolves the adverse effect.

- **Noise.** If an alternative would result in perceptible 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.

- **Utilities.** An alternative could have a significant effect on utility infrastructure if it would increase demand over capacity, requiring a substantial system expansion or upgrade, or if it would result in substantial system deterioration over the current condition.

- **Transportation and Parking.** An alternative could have a significant effect on transportation and parking if it would increase the volume of traffic beyond the existing roadway capacity, cause parking availability to fall below minimum local standards, or require new or substantially improved roadways or traffic control systems.

### 3.2 Aesthetics

#### 3.2.1 Existing Conditions

Colorado Springs is surrounded by mountain views along the Front Range of the Colorado Rockies and near the base of one of the most famous American mountains, Pikes Peak, which rises over 8,000 feet above the city. Stretching out from the foot of Pikes Peak, the city encompasses forested foothills, sheer-walled canyons, mountain streams, unique rock formations, expansive grasslands, meandering creeks, and scenic bluffs and mesas. Due to the changes in elevation within the city limits, which ranges from approximately 5,500 feet to 7,500 feet above sea level, this setting provides distinctive topographic features and rich ecological diversity. Stunning views of the Pikes Peak and the Front Range mountains can be enjoyed from almost every part of the city (City of Colorado Springs 1998).

The site is located in a rural area just outside the city limits of Colorado Springs, El Paso County, Colorado (VA 2012). The site is located approximately 15 miles east of the center of Colorado Springs and is bounded to the north by Drennan Road, a rural two-lane road. A utility corridor that includes overhead electrical lines and a natural gas pipeline is located along the eastern site boundary (AES Group, Inc. 2015).

Since at least the early 1900s, the site has primarily remained undeveloped rangeland, with the exception of a historic farm home and associated structures that are no longer extant. As recently as within the past year, the site was used for livestock grazing. The site is flat to gently rolling in the north-central portion of the site and characterized as a shortgrass prairie underlain by alluvium. A hill is present in the southeast corner of the site and slopes to the north, northwest, and west. The hill is underlain by alluvium and shale and meets the generally flat north-central portion of the site at an unnamed, ephemeral arroyo that flows to the southwest within the site, eventually discharging into Jimmy Camp Creek approximately 1,200 feet downstream. The western portion of the site consists of an unnamed ephemeral arroyo that flows into Jimmy Camp Creek approximately 500 feet downstream. The arroyos in the central and western portions of the site, along with a generally flat shortgrass prairie in the northeast portion of the site, are characterized as floodplains and encompass approximately 97.4 acres of the site (Terracon...
Consultants, Inc. 2012a). Several neighborhoods that are directly west of the arroyo and Jimmy Camp Creek have been developed and are visible from the site. Otherwise, the area surrounding the site currently remains undeveloped. Due to limited development within the area, Drennan Road has retained its rural character and has not severed the landscape viewshed.

The site area provides a transitional zone between the surrounding natural, scenic open space and the city. The site still retains the elements of open space with land being unimproved and containing significant natural features such as a floodplain, undulating topography, and prairie grasslands. The experience of a naturally dark night or a pristine starry night sky are important elements of “scenery” within open space areas. The night sky in the area is still relatively dark; light sources in the vicinity of the site are comprised primarily of scattered streetlights in the rural living areas.

3.2.2 Effects of the Preferred Alternative

The construction and operation of Phase 1 of the new VA National Cemetery in the southern Colorado area would be expected to have negligible, short-term and negligible-to-minor, long-term, adverse impacts on aesthetics.

As identified in Section 3.1.2, an alternative could affect visual resources if it resulted in abrupt changes to the complexity of the landscape and skyline (i.e., in terms of vegetation, topography, or structures) when viewed from points readily accessible by the public. A visual analysis was conducted in a manner consistent with the referenced future development of a new National Cemetery on the site. The current design would develop the site in a manner that strives to preserve many of its existing features, such as hills, wetlands, and trees adjacent to arroyos. Indigenous and native plants would be used, helping to preserve existing aesthetics. Preparation of, and adherence to, a comprehensive Site Management Plan by a landscape architect would ensure that the long-term aesthetic quality of the cemetery is not compromised (AES Group, Inc. 2015).

During the October 2015 public scoping meeting, the VA received questions regarding the potential impacts of the Proposed Action on the local viewshed, specifically concerning vistas of Pikes Peak. Master Plan 5 notes that the Pikes Peak vista would be a focal point of the landscaping and site design to those arriving at and visiting the proposed National Cemetery (AES Group, Inc. 2015). Therefore, no adverse impacts would be expected on aesthetics as they relate to local viewsheds.

The cemetery buildings are “secondary” to the grounds; although considered an important element of interment services, they will be blended in a subtle manner within the context of the cemetery setting, surrounding topography, local vernacular architecture, and scenic grasslands. The buildings and site elements and features would adhere to the VA’s NCA Facilities Design Guide, which dictates that the architectural design be integrated with the surrounding landscape, and have a residential, noninstitutionalized character (AES Group, Inc. 2015). As part of the strategy to meet Silver-level LEED® standards in energy efficiency and commercial airport overlay district requirements for nonintrusive lighting sources in accordance with state, county, and FAA regulations, site design lighting would conform to El Paso County and Federal Aviation Administration (FAA) standards. All lighting sources would face downwards and consist only of way-finding signage. There would be little to no nighttime lighting within the site, except for flagpole and security lighting; therefore, lighting is unlikely to affect night sky visual resources.
3.2.3 Effects of the No Action Alternative

The No Action Alternative would have no impact on aesthetics. Construction of a cemetery would not occur at the site, resulting in no change from the existing condition. Should the site ultimately be developed for another use, aesthetics effects could result from that changed land use.

3.2.4 Minimization/Management Measures

Future proposed cemetery development at the Preferred Alternative Site would comply with FAA lighting requirements and, to the extent possible, with El Paso County development guidelines. The following design measures and construction BMPs would be implemented to improve aesthetics:

- Incorporate existing topography and natural features into site design wherever possible.
- Incorporate elements of local vernacular architecture into facility and site design.
- Maintain landscaped areas, buildings, roadways, and signage.
- Design the site to accentuate existing viewsheds, including vistas of Pikes Peak.

Since the Proposed Action would not present any significant adverse effects on aesthetics, specific minimization measures would not be required.

3.3 Air Quality

3.3.1 Existing Conditions

The USEPA evaluates air quality compliance with the National Ambient Air Quality Standards (NAAQS), which measure seven criteria pollutants: carbon monoxide; nitrogen dioxide; ozone, which is measured by its precursors, nitrogen oxides and volatile organic compounds; sulfur dioxide; particulate matter measuring less than 10 microns in diameter; particulate matter measuring less than 2.5 microns in diameter; and lead. These criteria pollutants are those for which the USEPA has placed the greatest emphasis and has developed health-based concentrations for ambient air.

Air Quality Control Regions (AQCRs) that are in violation of NAAQS are designated as nonattainment areas; AQCRs with levels below NAAQS are designated as attainment areas. An area may also be classified as a maintenance area if it was once classified as nonattainment but has since reached attainment of NAAQS for a probationary period through implementation of a maintenance plan. El Paso County is currently designated as in attainment for all criteria pollutants (USEPA 2015). Therefore, the ROI, including the site, has good ambient air quality. A Conformity Determination is not required.

USEPA guidance stresses that, given the nature of GHGs and their persistence in the atmosphere, climate change impacts should be considered on a cumulative level. Federal agencies address emissions of GHGs by reporting and meeting reductions mandated in federal laws, EOs, and agency policies. The most recent of these are the USEPA's Mandatory Reporting of Greenhouse Gases Final Rule (40 CFR Parts 86, 87, 89 et al.); EO 13653, Preparing the United States for the Impacts of Climate Change; and EO 13693, Planning for Federal Sustainability in the Next Decade, which builds upon and supersedes EOs 13423 and 13514.
Given the current land use of the site, no sources of regulated air emissions exist (e.g., from boilers, emergency generators, or other minor equipment). As such, the VA, as the site owner, does not have, and is not required to have, a Title V operating permit based on current conditions. There are no sensitive air quality receptors in the immediate vicinity of the site.

3.3.2 Effects of the Preferred Alternative

The construction and operation of Phase 1 of the new VA National Cemetery in the southern Colorado area would be expected to have minor, direct and indirect, short- and long-term, adverse impacts on existing air quality around the site, which is consistent with the findings presented in the Final PEA (VA 2012).

Phase 1 would include clearing, excavating, and grading of the 65-acre site; facilities construction; and road construction. Construction activities would generate criteria pollutant emissions and GHGs from heavy equipment and fugitive dust emissions during ground-disturbing activities. These emissions would cause minor, localized, temporary effects on air quality. The fugitive dust could cause nuisance concerns, such as reduced visibility on nearby roadways. These effects would be minor and temporary and would not be considered significant. The Preferred Alternative would require an Air Pollutant Emission Notice and General Construction Permit for Land Development Projects (CDPHE 2009).

During operation of Phase 1 and future phases, sources of air emissions would include emergency generators and vehicles visiting the site, which could result in negligible, nonsignificant effects on air quality. Based on the design, administrative and maintenance buildings would each have a diesel-driven standby generator sized to provide an alternative source of power to the entire building if the normal power source fails (i.e., one 112.5-kilovolt-ampere-generator, one 150-kilovolt-ampere-generator) (AES Group, Inc. 2015). Stationary internal combustion engines for emergency power that operate no more than 250 hours per year are considered de minimis and exempt from air permitting, but an Air Pollutant Emission Notice would be required (CDPHE 2014). Although a greater number of vehicles would be present on-site compared to the No Action Alternative, the Preferred Alternative would result in fewer regional emissions because veterans and their families would not be required to travel such great distances to other National Cemeteries in Colorado.

3.3.3 Effects of the No Action Alternative

The No Action Alternative would result in negligible, adverse impacts on air quality. Construction of a cemetery would not occur at the site, resulting in no change in air emissions. However, on a regional scale, the No Action Alternative may result in increased vehicles emissions, as veterans and their families are required to travel greater distances to other National Cemeteries in the region. Should the site be developed for another use, air quality impacts could result from that changed land use and would depend upon the nature of the development.
3.3.4 Minimization/Management Measures

The following construction BMPs would be implemented to control and minimize fugitive dust emissions at the site:

- Use appropriate dust suppression methods during on-site construction activities. Available methods include application of water, dust palliative, or soil stabilizers; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-moving activities during high wind conditions.
- Maintain an appropriate speed to minimize dust generated by vehicles and equipment on unpaved surfaces.
- Cover haul trucks with tarps.
- Stabilize previously disturbed areas through revegetation or mulching if the area would be inactive for several weeks or longer.
- Visually monitor all construction activities regularly, in particular, during extended periods of dry weather, and implement dust-control measures, when appropriate.

In accordance with the VA’s Climate Change Adaptation Plan, new VA buildings will use Adaptive Climatology Design Standards to prevent over- or under-designing building systems, reducing energy waste (VA 2014). Since the Proposed Action would not present any significant adverse effects on air quality, specific minimization measures would not be required.

3.4 Geology and Soils

The Final PEA (Section 3.5) presented background information on geology, topography, and soils. The Final PEA described potential impacts on these resources from construction and operation of a National Cemetery and BMPs to minimize potential impacts.

3.4.1 Existing Conditions

3.4.1.1 Geology

The project site is located within the Colorado Piedmont section of the Great Plains physiographic province. The Colorado Piedmont, formed during the Late Tertiary and Early Quaternary time (approximately two million years ago), is a broad, erosional trench that separates the Southern Rocky Mountains from the High Plains. Structurally, the site lies along the western flank of the Denver Basin. During the Late Mesozoic and Early Cenozoic periods (approximately 70 million years ago), intense tectonic activity occurred, causing the uplifting of the Front Range and associated downwarping of the Denver Basin to the east. Relatively flat uplands and broad valleys characterize the present-day topography of the Colorado Piedmont in this region.

Surficial geologic conditions at the site, as mapped by the Colorado Geological Survey (CGS) (Madole and Thorson 2002), indicate that the site is underlain by the Young Alluvium 1 and 2, followed by the cone-in-cone zone of Lavington. The Young Alluvium 1 is described as chiefly light brownish gray, grayish brown, and dark grayish brown, poorly sorted sand, silty sand, and minor pebble gravel. The Young Alluvium 2 is described as similar to Young Alluvium 1, except the formation includes several thin beds and lenses of dark grayish brown to very dark grayish brown sediment. The cone-in-cone formation generally consists of dark gray, clayey, or silty shale containing reddish brown siderite iron concretions, gray iron stained limestone concretions, thin bentonite beds, and concretions with cone-in-cone structure.
The VA conducted a geotechnical investigation of the site concurrent with the PEA, including five borings. Subsurface materials encountered at the surface and underlying the topsoil predominantly consisted of silty sand and clay sand soils at depths ranging from 6 to 20 feet below ground surface. A subsequent geotechnical investigation associated with the master planning process analyzed selected samples from 54 borings of locations across the 374.3-acre parcel. Technicians subdivided the project area into three zones, with the majority of the Phase 1 footprint falling within Zone B and small areas of the site intersecting Zones A and C at the western and southern site boundaries respectively. Subsurface conditions Zone A indicated clay interbedded with sand to a depth of approximately 11 feet and underlain by sands. Zone B indicated surficial clays overlying interbedded layers of clay and sand. Zone C indicated surficial clays with isolated sand layers. Borings for this geotechnical study terminated at depths of up to 100 feet without reaching bedrock (Shannon and Wilson, Inc. 2015).

A review of the Elsmere U.S. Geologic Survey (USGS) Topographic Quadrangle (dated 1994) indicated that surficial topography in the region of the site is gently rolling, with a topographic high area in the northeastern portion of the site. From the high point (170 feet above mean sea level [AMSL]) in the northeastern portion of the site, the topography slopes downward to the northwestern portion of the site (approximately 70 feet AMSL), to the southwestern portion of the site (approximately 80 feet AMSL), and to the southeastern portion of the site (approximately 70 feet AMSL).

3.4.1.2 Soils (Including Prime Farmland Soils)

Manzanola clay loam covers 160 acres of the property, comprising nearly half its total acreage (see Figure 3-1). Other soils include Nelson-Tassel fine sandy loams (23 percent), Ustic Torrifluvents loam (19 percent), Ellicott loamy course sand (5 percent), and Vona sandy loam (5 percent). For the most part, because these are moderately coarse textured soils that are fairly well drained, they should not be highly erodible. The majority of the site, including Phase 1, consists of material with low swell potential near the surface. However, the southeast portion of the site appears to be more susceptible to swelling at greater depths (Shannon and Wilson, Inc. 2015). The Draft Geotechnical Design Report found clay soils that have a potential to swell, causing heave. Due to the risk of swell-related movements at this site, appropriate BMPs are included to allow for, and/or minimize, potential impacts of heaving.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the Manzanola clay loam soil type may be characterized as prime farmland, if irrigated. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. Prime farmland contains soils of the highest quality and can economically produce sustained high yields of crops when treated and managed according to acceptable farming methods (Soil Survey Division Staff 1993). Prime farmland is protected under the Farmland Protection Policy Act (FPPA) (7 U.S.C. 4201 et seq,) in order to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. Because this project has the potential to convert important farmland to nonfarm use, the VA coordinated with the NRCS to determine the potential effects of the Preferred Alternative on farmland soils (see Section 3.4.2).
Figure 3-1. Topographic and Soils Including Prime Farmland Map, Pikes Peak National Cemetery, Colorado
3.4.1.3 Soil Erosion and Stormwater Management

The USEPA has authorized the State of Colorado to administer the federal National Pollutant Discharge Elimination System (NPDES) program, including stormwater discharge permits. The state’s permit program is known as the Colorado Discharge Permit System (CDPS) and is enforced by the Colorado Department of Public Health and Environment (CDPHE), Office of Environment Water Quality Control Division (WQCD). The CDPS stormwater program regulates point source discharges of stormwater into surface waters of the state of Colorado from certain municipal, industrial, and construction activities.

The cemetery will be landscaped, and appropriate grasses would be planted for aesthetic value and for erosion control. Permanently irrigated areas will include in-ground burial sections, landscaped areas around the columbarium, landscaped area around the public information center, administrative and maintenance buildings, the cemetery entrance, and the flagpole assembly area. Phase 1 will include approximately 20 irrigated acres, with an additional 18 irrigated acres added in Phases 2 and 3. The landscaping design was developed using water-wise landscaping principles. The plants selected are native to the El Paso County area and are adapted to that specific climate. There are a variety of trees, shrubs, flowering perennials, ferns, and vines in the design. The grass in prominent areas will be Bermuda grass, with the rest of the grass consisting of Bahia grass (AES Group, Inc. 2015).

3.4.2 Effects of the Preferred Alternative

Future development of a new National Cemetery on the site would have negligible-to-minor, adverse impacts on geology and soils. No significant changes to topography would be expected on the Preferred Alternative site due to future proposed cemetery development. The proposed cemetery would be designed largely in concert with the natural topography, and alterations to drainage patterns would be ultimately beneficial to the site’s flood regime (see Section 3.6.2). Paved areas would be designed to drain to a suitable, site-specific, and properly engineered and designed stormwater management system.

The Preferred Alternative would have minor, long-term adverse impacts on the site’s topography. Due to the area’s being essentially a broad rolling plain, no significant, major earth-moving operations would be required. The existing topography would be altered slightly by grading for roads, construction of buildings, and burial sites.

Minor, direct and indirect, short-term, adverse soil erosion and sedimentation (E&S) impacts would be expected during construction and operation of the site. Construction would remove vegetative cover, disturb the soil surface, and compact the soil. The soil would then be susceptible to erosion by wind and surface runoff. Exposure of the soils during construction has the potential to result in increased sedimentation into the on-site stormwater management systems, and the potential for off-site discharges of sediment-laden runoff. However, such potential E&S effects would be prevented through utilization of appropriate BMPs and adherence to the terms of the CDPS General Permit for Stormwater Discharge Associated with Construction Activities, the City of Colorado Springs Drainage Criteria Manual Volume 2, and the El Paso County Engineering Criteria Manual. Once construction is complete, no long-term E&S effects would be anticipated due to the nature of the Preferred Alternative. No long-term soil erosion effects would occur as a result of increased impervious surfaces on site. These effects would be minimized by including an appropriately designed stormwater system as part of final site design, and ensuring post-project hydrology mirrors pre-project hydrology (see Section 3.5).
In March 2016, the VA consulted with the NRCS Colorado Springs Field Office to determine the potential effects of the Preferred Alternative on prime farmland soils. The NRCS determined that the site does not contain Prime, Unique, or Local Important Farmland and concluded that the Preferred Alternative would have a Farmland Conversion Impact Rating of 0, indicating no effect (see Appendix B).

The development plan associated with the Preferred Alternative would not result in discharge of stormwater from the site for all flooding scenarios, with the exception of the 500-year flood. There is no need to convey water below grade in pipes except for the 500-year flood elevation (AES Group, Inc. 2015). Further information is included in Section 3.6.

### 3.4.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by the VA would occur. No impacts on geology or soils would occur.

### 3.4.4 Minimization/Management Measures

The use of BMPs to reduce potential effects during construction would minimize potential effects on geology and soils resources. These management measures include those discussed below.

#### Review and Approval Processes

In addition, future proposed cemetery development of the site would comply with the following state and local review and approval processes:

- obtaining a CDPS permit for the Preferred Alternative from the CDPHE

#### Soil Erosion and Stormwater Management

Implementing BMPs to reduce E&S effects during future construction would further minimize the potential effects on local soils and water quality. The construction contractor would implement the following, as appropriate and necessary, to protect surface water quality, as part of CDPS permit:

- Design impervious surfaces to drain to stormwater management systems.
- Install and monitor erosion-prevention BMPs, including silt fences, detention ponds, sediment berms, rip-rap, and/or other sediment-control structures.
- Reseed/revegetate areas temporarily cleared of vegetation.
- Install erosion-control fabric on slopes created by new construction during revegetation activities.
- Retain on-site vegetation to the extent possible.
- Create and maintain tree-lined borders to minimize viewshed impacts.
- Obtain all required permits in advance of construction activities and adhere to permit conditions during.

Soil E&S impacts would be minor through correct implementation of the CDPS permit. This would ensure compliance with state and federal water quality standards and minimize short- and long-term adverse impacts on soils.

Since the Proposed Action would not present any significant adverse effects on geology and soils, specific minimization measures would not be required.
3.5 Hydrology and Water Quality

3.5.1 Existing Conditions

3.5.1.1 Groundwater

Within the state of Colorado, large quantities of groundwater are stored in the four primary aquifers of the Denver Basin, which underlies much of the northeast to north-central region of the county. The amount of available water varies from location to location because of previous use, present rates of pumping activity and the permeability of the subsurface. Much of the water contained in the upper layers and outer boundaries within these formations is considered to be tributary to surface water sources. This water generally is not available except when it is pumped from small exempt wells, or when consumptive use is replaced through an augmentation plan.

Local groundwater supplies most of unincorporated El Paso County. Approximately 25 central systems serve most residents while approximately 25,000 residents utilize individual or small shared wells. These individual wells are located predominantly in the northern half of the county. Availability of groundwater is not fully dependable in large areas of granite or tilted bedrock exposure, which occur in western El Paso County. Failure of septic and leach field systems can also result in pollution of available groundwater (El Paso County 1995).

Throughout El Paso County, alluvial deposits located along stream channels are a significant source of groundwater. In southern areas of the county, the location and thickness of Pierre Shale controls groundwater availability. In these areas, dependable water is often only available at depths ranging from 2,000 to 4,500 feet. Nearly all the water that flows along El Paso County stream channels is owned by downstream water users; only the City of Colorado Springs owns large amounts of surface water (El Paso County 1995).

As described in the Final PEA, the proposed site sits above the Pierre Shale and Dakota/Cheyenne sandstone aquifers. The uppermost aquifer is within sands of the sedimentary bedrock of the Pierre shale. The groundwater yield from this formation is typically less than 15 gallons per minute. Where encountered during drilling, groundwater ranged from about 21 to 33 feet below ground surface. These groundwater depths should be considered accurate at the time of drilling only. Groundwater level fluctuations are possible and depend on many factors, including seasonal variations and local precipitation.

The State of Colorado, under Colorado Revised Statutes (C.R.S.) 37-92-101 et seq., regulates the use and allocation of water. The Colorado Department of Natural Resources, Division of Water Resources, is the agency responsible for administering water permits. The El Paso County Health Department monitors the location of wells.

3.5.1.2 Surface Water

The two surface water drainage systems located on the site include the Corral Tributary, an ephemeral arroyo, and the Franceville Tributary, an ephemeral floodway (Figure 3-2). The Corral Tributary begins several miles north of the site, entering at the northwest corner and flowing south until leaving the site. Corral Tributary discharges into Jimmy Camp Creek approximately 1,200 feet southwest of the property. This dry gulch ranges from 50 to 100 feet wide, with eroded banks ranging from 1 to 15 feet high. Mature cottonwoods are scattered along the banks of the gulch across most of the site. The bottomlands are dry, with unconsolidated sand and grass-covered riparian edges.
Figure 3-2. Waterways in the Vicinity of the Proposed Project Site
The Franceville Tributary consists of two arroyos that converge in the southwest portion of the site. These arroyos flow southwest across the central portion of the site and join Jimmy Camp Creek approximately 500 feet downstream of the property. The banks of the Franceville Tributary range from 1 to 15 feet high and 10 to 20 feet wide. Its bottomlands are primarily unconsolidated sands with no indications of standing water or wetlands. There are no other open water bodies, natural or man-made, on the site. The arroyos in the central and western portion of the site, along with a generally flat shortgrass prairie in the northeast portion of the site, are characterized as floodplains and encompass 97.4 acres of the 374.3-acre property.

3.5.1.3 Other Waters

In addition to wetlands, other WOTUS were identified on the site during the Section 404 delineation, including Corral Tributary and two nonvegetated surface waters located in the Franceville Tributary (see Figure 3-2 and Figure 3-3). Corral Tributary exhibits a low-flow channel that meanders within a broader active floodplain. Corral Tributary is characterized by a low slope, with the channel bed and floodplain composed entirely of sand. No water was observed within the channel during the site visit, but evidence of episodic flows was observed in the form of debris deposits and eroding banks.

Both of the open-water features associated with the Franceville Tributary are formed from groundwater that seeps from headcuts, but neither exhibits wetland characteristics (i.e., lacked wetland vegetation). At the time of field investigations, water was approximately two to three feet deep, and measured approximately 0.015 acres and 0.009 acres each at the outside edge of water.

3.5.2 Effects of the Preferred Alternative

The Preferred Alternative would result in minor, short-term, adverse impacts on hydrology and water quality. Components of the Preferred Alternative regarding water sources, delivery systems, water quality, and their feasibility have been included in the design of the proposed cemetery and are in compliance with federal and state regulations. No significant changes to hydrology and water quality would be expected from the Preferred Action.

There are no existing water facilities that service the project site. However, the project site overlays and is adjacent to the Jimmy Camp Creek Alluvium, which is used as the source for water for multiple entities. Under the Proposed Action, two wells would be used to provide water sources. One water source would be from an on-site well, and a secondary well would be used as a backup system. The wells would be drilled, operated, and maintained by WWSD. The WWSD has exclusive rights to provide water services at the project site. In addition, the WWSD currently has wells in the area and a water augmentation plan with the State of Colorado. Domestic water service would be provided to the administration/PIC building, the maintenance complex, and the honor guard building. At this time, the water requirements for each building are unknown. Once the building types and sizes are known, the water requirements can be determined. The dual-well system would be sized for capacity to serve the domestic and fire protection water service needs.

The well water in the area is high in manganese; therefore, a treatment system would be required. There are two options that could be employed to treat the water. One option is to connect to an existing water treatment facility; the second option is to build an on-site treatment plant. The Colorado Centre water treatment plant is located less than 1,320 feet (¼ mile) west of the project site and will have excess capacity. The proposed water system at the project site could be permanently connected to this plant to treat the manganese. However, the connection would have
to cross under Jimmy Camp Creek. The WWSD is looking at various options to connect to the Colorado Centre water treatment plant. One option involves routing one of the irrigation water pipelines from the water treatment plant to the irrigation pond; in this case the potable water line could parallel that pipe. Since well water would be used for both irrigation and domestic purposes, the design and installation of treatment system must be coordinated. Conceptually, the manganese treatment system could be sized for the maximum well capacity to meet irrigation needs. Downstream of the manganese treatment, the piping would separate to irrigation and domestic. Any additional treatment required for domestic use could then be sized accordingly.

Since there is no water source at the project site, well water would be used for irrigation and domestic purposes. The wells would have an estimated flow of 120 to 180 gallons per minute, which would not be enough capacity to meet the irrigation peak needs. Therefore, the proposed plan for irrigation in the short-term is to transfer water from the wells to an on-site pond, where it would be stored. Then, a pumping system would pump water at a rate to meet a six- to eight-hour watering window. Because this project has a phased development plan, the project site would be divided into two sections. There would be a north and south section divided by an existing floodway; these sections would each have their own irrigation pond and pumping systems. In the long-term, water from Big Johnson Reservoir would be used for irrigation. Big Johnson Reservoir is located approximately four miles southwest of the project site. Ditch water stored in this reservoir does not have the manganese issues that the well water does, so it is better suited for irrigation.

The State of Colorado, under C.R.S. 37-92-101 et seq., regulates the use and allocation of water. The Colorado Department of Natural Resources, Division of Water Resources, is the agency responsible for administering water permits. The County, through its Health Department, monitors the location of wells. A permit issued by the Colorado State Engineer is required prior to constructing a new well and prior to the repair, replacement, or modification of an existing well (Colorado Office of the State Engineer 2005). According to the Colorado Revised Statutes (C.R.S. 37-90-108), after a conditional permit has been received, the applicant has one year to construct the well. Once construction is complete, the applicant must provide information including the depth of the well, the water-bearing formations intercepted by the well, and the maximum sustained pumping rate in gallons per minute.

The design of several drainage channels and ponds within planned areas of the site, would allow for surface water to flow to the drainage basin channel located on the east end of the site, only after appropriate BMPs have been incorporated. Once the overall site design is finalized, roads and the surface area and design would determine which required systems (e.g., underground storm sewer) will best convey the site drainage in order to address the potential for impacts on WOTUS. Through the installation of soil reinforcement BMPs (i.e., grass stabilization, soil reinforced geotextiles) and straw wattles around the downslope of dirt stock piles, implemented erosion control measures would ensure that nearby stream areas would be appropriately addressed. Based on recent WOTUS analysis and BMP project design measures, no long-term adverse impacts to surface water quality would be expected.

3.5.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by the VA would occur, and no impacts on hydrology or water quality would be expected.
3.5.4 Minimization/Management Measures

To further reduce potential impact on water resources, recommended BMPs to be employed during project construction and operations are provided in Chapter 5. The following management measures would be undertaken during Phase 1 activities:

- Implement BMPs such as sediment control logs, where needed, to prevent sediment-laden runoff from the project sites from adversely affecting receiving waters.
- Measure the pre-development sediment content of bodies of water adjacent to the work area that will receive drainage from the work area.
- Perform erosion and sediment control according to the source development plan and the Storm Water Pollution Prevention Plan or Erosion Control Plan.
- Comply with the terms and conditions of any permits that are issued for the performance of work within the jurisdictional wetlands and WOTUS.
- Prohibit the operation of equipment or discharge of material within the boundaries of wetlands and the WOTUS, as defined by the federal and state regulatory agencies.
- Construct barriers in work areas and in material sources to prevent sediment, petroleum products, chemicals, and other liquids and solids from entering jurisdictional wetlands or WOTUS.
- Clear ephemeral drainages and intermittent and perennial streams of all work items, debris, or other obstructions placed by, or resulting from, construction operations.
- Locate machinery servicing and refueling areas away from streambeds and washes to reduce the possibility and minimize the impacts of accidental spills or discharges.
- Inspect and maintain construction vehicles in good working order and maintain a spill kit.
- Apply turf establishment to finished slopes and ditches after completion of construction on a portion of the site.
- Explore options to increase reuse of potable water.

Since the Proposed Action would not present any significant adverse effects on geology and soils, specific minimization measures would not be required.

3.6 Floodplains and Wetlands

3.6.1 Existing Conditions

In May 2015, Atkins Global delineated the Section 404 jurisdictional wetlands and other WOTUS along Corral Tributary and Franceville Tributary, according to guidelines in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region. The purpose was to determine U.S. Army Corps of Engineers (USACE) jurisdictional areas within the site of the Proposed Action. The delineation identified two wetlands (GA and GB) totaling approximately 0.90 acres (39,383 square feet) and the Corral Tributary as jurisdictional wetlands/WOTUS (see Figure 3-3) (Atkins 2015b). The wetlands delineation is included in Appendix D.

Both wetlands are located within Franceville Tributary. At Drennan Road, Franceville Tributary has been diverted from its historic path to drain into Corral Tributary. Undiverted flow passes south over Drennan Road and across an undefined floodplain. Approximately 1,500 feet south of Drennan Road, surface flows could outfall into Franceville Tributary. The drainage becomes progressively narrower with steeper slopes forming semi-eroded banks. There is no defined channel within Franceville Tributary, but several groundwater seeps located in that area provide water for wetlands present within the drainage.
Figure 3-3. Wetlands and Waters of the United States, Pikes Peak National Cemetery, Colorado

Wetlands and Water Features

Source: Department of Veterans Affairs, Balance Environmental, ESRI Basemap 2015

January 2016

- Site Boundary
- Wetland
- Open Water
- Ordinary High Water Mark
- Tributary
- Road
Wetland GA is located within Franceville Tributary near the southern site boundary, where groundwater discharges from a headcut that spans the entire width of the drainage. The water collects in an unvegetated, open water basin, and overflows into Wetland GA. Wetland GB also is fed by a groundwater seep located at the northern end of the wetland boundary.

The hydric soil indicator for Wetlands GA and GB were loamy gleyed matrix (Indicator F2). Surface water was present at both Wetlands GA and GB. Additional secondary hydrological indicators noted at one or both wetlands included soil saturation, salt crust, and algal mat. Wetlands GA and GB are both classified as PEM wetlands by Cowardin due to the dominance of erect, rooted, herbaceous vegetation. Four floodplains associated with the Jimmy Camp Creek tributaries have been mapped through Federal Emergency Management Agency Flood Insurance Rate Maps (Figure 3-4). The floodplains are identified as Zone A (100-year flood) adjacent to the streams.

The site is not subject to Coastal Zone Management Act regulations.

### 3.6.2 Effects of the Preferred Alternative

The Preferred Alternative would be expected to have minor, short-term, adverse impacts on wetlands, which is consistent with the findings in the PEA. Impacts would largely result from site disturbance, stormwater runoff, and sedimentation of on-site wetlands. To the extent practicable, the master plan avoids impacts on wetlands per Section 404 of the Clean Water Act (CWA). Negligible, long-term, beneficial impacts on wetlands would also be expected, as improvements to the site’s stormwater and surface hydrology would help to protect wetlands from rapid flooding events common in the region.

As described in Section 2.1.2, the employment of environmental and engineering BMPs, watershed-sensitive site design techniques, and direct consultation with pertinent federal, state, and local regulatory agencies would help minimize temporary adverse impacts associated with construction and operation of the National Cemetery. The site planning of roads, structures, and facilities specifically avoids sensitive wetland resources and floodplains. Grading contours direct stormwater flows to an artificial channel adjacent to the Franceville Tributary that would convey stormwater flow to a retention pond, allowing infiltration into the pond and minimizing sedimentation or pollutant discharge into wetlands. Any modifications to site plans or future development phase construction activities that would result in unavoidable impacts on jurisdictional wetlands or waterways greater than 0.1 acre but less than 0.5 acre would be coordinated through the USACE through the Nationwide Permit System.

The Preferred Alternative would be expected to have minor, beneficial, long-term impacts on floodplains. The master plan utilizes a combination of waterway engineering and watershed-sensitive site design techniques. Floodplain modifications would result in diversion of the Franceville Tributary, eliminating the on-site portions of that tributary’s floodplain. The development of a 500-year channel would allow the diversion of surface flows to stormwater channels and ponds. The stormwater management techniques integrated into the master plan would allow the prevention of offsite stormwater discharge for all flooding scenarios not exceeding 500-year flood conditions. Following the drainage improvements associated with Phase 1, future development of the site would include one road crossing over the Franceville floodway to future development sections in the southern portion of the property. Modifications to the site’s stormwater and surface water hydrology are expected to enhance the predictability of flooding scenarios, protecting existing wetlands from future scour or rapid flooding common with this region of the country, thus resulting in overall minor beneficial impacts on floodplains.
Figure 3-4. Floodways and Floodplains at the Proposed Project Site
Modifications to on site tributaries of Jimmy Camp Creek would require a FEMA MT-2 permit. Under this permit, the depth of the channel would be reduced to minimize the width portion of the cross section. As a result, issuance of a CLOMR would update FEMA’s flood maps to show the reduced floodplain area, creating additional developable land on the site.

3.6.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no effects on floodplains or wetlands. The minor, long-term, beneficial impacts to floodplains anticipated from the Preferred Alternative would not be realized. Future development of the site could result in adverse impacts to floodplains and wetlands that would not occur under the Preferred Alternative.

3.6.4 Minimization/Management Measures

Since the Preferred Alternative would not present any significant adverse effects on floodplains and wetlands, specific minimization measures would not be required. However, implementing BMPs and watershed-sensitive site design techniques would help minimize the adverse effects of the Preferred Alternative on wetlands and floodplains. The following construction and design techniques would be employed:

- Modify floodplains and contributing channels to enhance predictability of flooding scenarios and reduce vulnerability of wetlands and VA assets to flood events.
- Implement channel stabilization/restoration projects along Corral Tributary to prevent further channel erosion and sedimentation of waterways and wetlands.
- Avoid development to the extent practicable of on-site wetlands, floodplains, and Section 404 jurisdictional waters.
- Address permits from FEMA, USACE, El Paso County, Pikes Peak Regional Building Department, and other regulatory agencies to minimize adverse impacts on jurisdictional wetlands and/or floodplains.
- Maintain a buffer or undisturbed land around identified wetlands and floodplains.
- Utilize site designs that account for pre/post 100-year flood volume drainage, at a minimum.
- Implement pre/post 100-year stormwater volume retention, at a minimum.
- Implement stormwater management facilities and related infrastructure on site.

3.7 Wildlife and Habitat

3.7.1 Existing Conditions

3.7.1.1 Habitat

The vegetation in the majority of the project area is composed of grasslands, with riparian areas consisting of scattered shrubs and canopy cover. Riparian habitats can support a high diversity of wildlife and many species that occur exclusively in wetland environments. As described in Section 3.6.1, two separate wetland areas exist on the site within the riparian zone. Riparian corridors also provide links to wildlife movement between habitat areas. General wildlife likely to occur in this area includes mammal species such as red fox (Vulpes vulpes), coyote (Canis latrans), mule deer (Odocoileus hemionus), raccoon (Procyon lotor), and striped skunk (Mephitis mephitis).
3.7.1.2 Threatened and Endangered Species

The Endangered Species Act (ESA) of 1973 provides a program for the protection and conservation of threatened and endangered (T&E) plants and animals, and their habitat. The lead agency for implementing the ESA is the U.S. Fish and Wildlife Service (USFWS). The law requires federal agencies, in consultation with the USFWS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat.

The Colorado Nongame, Endangered, and Threatened Species Conservation Act of 1973 establishes the Colorado threatened and endangered species list for the purpose of identifying species in need of conservation and protection. Colorado Parks and Wildlife (CPW) is responsible for listing and managing state species. The Environmental Conservation Online Service (ECOS) analysis identified T&E species that are specifically known to occur within the region of the project site to the extent possible. Table 3-1 provides a list of federally and state-listed species that have the potential to occur within the area. Of the species identified, only the black-tailed prairie dog (*Cynomys ludovicianus*) has been observed on the site.

The Colorado Natural Heritage Program (CNHP) element occurrences database was referenced to determine state-listed threatened or species of concern that may potentially occur within the project area (CNHP 2014). These lists included several plant, terrestrial, and aquatic species; however, the majority of species do not have potential habitat in the project area. There are two federal species with potential habitat: one includes the Preble’s meadow jumping mouse (*Zapus hudsonius preblei*). However, the site is within a USFWS Block Clearance Zone (USFWS 2012), which means there is sufficient information to indicate the Preble’s meadow jumping mouse is not present.

The other federal species that has potential habitat in the vicinity of the site is the Arkansas darter (*Etheostoma cragini*). This small fish is listed as a candidate species for listing, and is found in shallow, clear, cool water, sand or silt bottom streams with spring-fed pools and abundant rooted aquatic vegetation. During late summer low-water periods, when streams may become intermittent, Arkansas darter populations in Colorado persist in large, deep pools. This species is also a state threatened species and is known to occur in downstream receiving waters of Jimmy Camp Creek (El Paso County 2011). Although the species has not been observed on-site or in the direct vicinity of the property, development plans for the Proposed Action are designed to minimize impacts to potentially suitable stream habitats on and adjacent to the site.
Table 3-1. Federally and State-Listed Species that have the Potential to Occur within the Project Area

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Federal Status</th>
<th>State Status</th>
<th>Habitat</th>
<th>Potential for Occurrence in the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plants</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Western Prairie Fringed Orchid*</td>
<td><em>Platanthera praecella</em></td>
<td>FT</td>
<td>--</td>
<td>Found most often on unplowed, calcareous prairies and sedge meadows</td>
<td>None; suitable habitat does not occur within the project study area.</td>
</tr>
<tr>
<td>Ute Ladies’-Tresses</td>
<td><em>Spiranthes diluvialis</em></td>
<td>FT</td>
<td>--</td>
<td>Moist meadows associated with perennial stream terraces, floodplains, and oxbows at elevations below 6,500 feet</td>
<td>None; suitable habitat does not occur within the project study area and the species is likely extirpated from El Paso County (El Paso County 2011).</td>
</tr>
<tr>
<td><strong>Fish</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pallid Sturgeon*</td>
<td><em>Scaphirhynchus albus</em></td>
<td>FE</td>
<td>--</td>
<td>Large river systems with firm sandy bottoms (i.e., Missouri River)</td>
<td>None; suitable habitat does not occur within the project study area.</td>
</tr>
<tr>
<td>Arkansas Darter</td>
<td><em>Etheostoma cragini</em></td>
<td>C</td>
<td>ST</td>
<td>Shallow, clear, cool water, sand or silt bottom streams with spring-fed pools and abundant rooted aquatic vegetation; during late summer low-water periods when streams may become intermittent, Arkansas darter populations in Colorado persist in large, deep pools</td>
<td>None; suitable habitat exists in the project area but is avoided by the project. Species is known to occur in downstream receiving waters of Jimmy Camp Creek (El Paso County 2011).</td>
</tr>
<tr>
<td>Greenback Cutthroat Trout</td>
<td><em>Oncorhynchus clarki stomias</em></td>
<td>FT</td>
<td>--</td>
<td>Cold, clear, gravel bed headwater streams in the Arkansas and South Platte River drainages</td>
<td>None; suitable habitat does not occur within the project study area.</td>
</tr>
</tbody>
</table>
### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

#### PAGE 42 SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

MARCH 2017 PIKES PEAK NATIONAL CEMETERY

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Federal Status</th>
<th>State Status</th>
<th>Habitat</th>
<th>Potential for Occurrence in the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Piping Plover*</td>
<td><em>Charadrius melodus</em></td>
<td>FT</td>
<td>--</td>
<td>Reservoirs, lakes, and rivers with sand and gravel areas and sparse vegetation</td>
<td>None; suitable habitat does not occur within the project study area.</td>
</tr>
<tr>
<td>Whooping Crane*</td>
<td><em>Grus americana</em></td>
<td>FE</td>
<td>--</td>
<td>Freshwater marshes, wet prairies, shallow lakes, lagoons, and riverine habitats</td>
<td>None; suitable habitat is not located within the project area.</td>
</tr>
<tr>
<td>Interior Least Tern*</td>
<td><em>Sternula antillarum</em></td>
<td>FE</td>
<td>--</td>
<td>Sandbars and shoreline of reservoirs, lakes, and rivers</td>
<td>None; suitable habitat does not occur within the project study area.</td>
</tr>
<tr>
<td>Mexican Spotted Owl</td>
<td><em>Strix occidentalis lucida</em></td>
<td>FT</td>
<td>--</td>
<td>Old-growth or mature forests with complex structural components and high tree density</td>
<td>None; suitable habitat does not occur within the project area.</td>
</tr>
<tr>
<td>Mountain Plover</td>
<td><em>Charadrius montanus</em></td>
<td>--</td>
<td>SC</td>
<td>Breeding habitat includes short grass prairie, shrub steppe, dryland, and prairie dog towns; nest sites usually occur where vegetation is sparse or absent</td>
<td>Potentially present; habitat overlaps with prairie dog habitat.</td>
</tr>
<tr>
<td>Bald Eagle</td>
<td><em>Haliaeetus leucocephalus</em></td>
<td>--</td>
<td>ST</td>
<td>Near estuaries, rivers, lakes, and marshes</td>
<td>Unlikely; habitat potentially occurs near the project study area, but will not be directly affected.</td>
</tr>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
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</tr>
<tr>
<td>Preble’s Meadow Jumping Mouse</td>
<td><em>Zapus hudsonius preblei</em></td>
<td>FT</td>
<td>--</td>
<td>Riparian vegetation with adjacent, preferably undisturbed grassland and nearby water sources</td>
<td>None; project area is located within a USFWS Block Clearance Zone (USFWS 2012) based on the likely absence of Preble’s.</td>
</tr>
<tr>
<td>Black-Tailed Prairie Dog</td>
<td><em>Cynomys ludovicianus</em></td>
<td>--</td>
<td>SC</td>
<td>Short, mixed, and tall grasslands; occurs in central and south-central Colorado</td>
<td>Present; numerous prairie dog burrows were observed in the project study area.</td>
</tr>
<tr>
<td>Swift Fox</td>
<td><em>Vulpes velox</em></td>
<td>--</td>
<td>SC</td>
<td>Short and mixed-grass prairie with flat to gently rolling terrain and sparse vegetation</td>
<td>Potentially present; habitat exists within the project study area.</td>
</tr>
</tbody>
</table>

**Notes:**

* Platte River Species = Water-related activities or uses in the South Platte River Basin, where the project is located, may affect these species in downstream reaches.

FT = federally threatened; FE = federally endangered; C = candidate species; ST = state threatened species; SC = state species of concern

Sources: USFWS 2015 and Colorado Natural Heritage Program element occurrences database (CNHP 2014).
3.7.1.3 Migratory Birds

The Migratory Bird Treaty Act (MBTA) of 1918 prohibits destruction or disturbance of nesting activities or nests that result in loss of eggs or young. All wild birds are protected under the MBTA, except nonnative, human-introduced species and a few families not mentioned in the underlying treaties. The USFWS implements the requirements of the MBTA.

The project area includes various nesting habitat, including trees of various sizes within Corral and Franceville Tributaries, cavities and ledges on the vertical cut banks of Corral Tributary, and expansive upland grasslands. Numerous birds were observed at the site, including red-tailed hawk (*Buteo jamaicensis*), great-horned owl (*Bubo virginianus*), black-billed magpie (*Pica hudsonia*), American robin (*Turdus migratorius*), western meadowlark (*Sturnella neglecta*), and mourning dove (*Zenaida macroura*). Other species not observed but likely to occur on the site include Swainson’s hawk (*Buteo swainsoni*), American kestrel (*Falco sparverius*), western kingbird (*Tyrannus verticalis*), lark sparrow (*Chondestes grammacus*), lark bunting (*Calamospiza melanocorys*), horned lark (*Eremophila alpestris*), American crow (*Corvus brachyrhynchos*), loggerhead shrike (*Lanius ludovicianus*), mountain bluebird (*Sialia currucoides*), and bank swallow (*Riparia riparia*) (Atkins Global 2015b).

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) receive additional protection under the Bald and Golden Eagle Protection Act (BGEPA), which prohibits the taking, possession, or commerce of these birds. Potential foraging habitat exists within the project area for bald and golden eagles, and eagles are known to prey on prairie dogs, which occupy the area. No known occurrences of bald eagle nests or roost sites occur within 10 miles of the project area (CNHP 2014). The nearest golden eagle nest is located approximately 6 miles from the project area.

3.7.1.4 Vegetation and Noxious Weeds

The majority of the site is dominated by a short grass prairie, with the exception of the western edge and southwest corner, which are located along the Corral and Franceville Tributaries. These areas are dominated by cottonwood riparian woodlands and riparian scrub-shrub habitats.

The short grass species found within the project site include buffalo grass (*Bouteloua dactyloides*), blue grama (*Bouteloua gracilis*), western wheatgrass (*Pascopyrum smithii*), galleta grass (*Hilaria jamesii*), broom snakeweed (*Gutierrezia sarothrae*), red threeawn (*Aristida purpurea*), alkali sacaton (*Sporobolus airoides*), sand dropseed (*Sporobolus cryptandrus*), sideoats grama (*Bouteloua curtipendula*), and yucca (*Yucca sp.*) (Terracon Consultants, Inc. 2012a).

Located along the western boundary and southwestern corner of the site, the riparian woodland community is dominated by plains cottonwood (*Populus deltoides*), with an understory of grasses including western wheatgrass, buffalograss, and blue grama. Located along the northern and central portion of the site along the Franceville Tributary, the riparian scrub shrub community is dominated by willows (*Salix sp.*) and rabbitbrush (*Ericameria nauseosa*), with an understory of mountain snowberry (*Symphoricarpos oreophilus*), blue grama, western wheatgrass, and buffalograss. These plants are common to the native plains of eastern Colorado and are not classified as threatened, endangered, or rare (Terracon Consultants, Inc. 2012a).
Given the adverse environmental effects of weeds, federal, state, and local governments have issued various orders and regulations regarding noxious weeds. The Colorado Noxious Weed Act establishes a prioritized list of alien plant species that requires designated levels of management (eradication, suppression or containment). Currently, 67 plant species are included on this list. Many of these species are confined to highly disturbed sites or areas that are farmed such as the project area (CDA Conservation Services 2000).

A formal noxious weed survey has not been performed on the site, but noxious weeds are known to occur in the vicinity of the project, including, but not limited to, spotted knapweed (Centaurea maculosa), hoary cress (Cardaria draba), leafy spurge (Euphorbia esula), diffuse knapweed (Centaurea diffusa), common teasel (Dipsacus sylvestris), Russian olive (Elaeagnus angustifolia), yellow toadflax (Linaria vulgaris), and Scotch thistle (Onopordum acanthium) (CDA Conservation Services 2003). These plant species are on Colorado’s Noxious Weed Species List B, which defines the species for which the commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, develops and implements state noxious weed management plans designed to stop the continued spread of these species (CDA 2016). In addition to these species, the common burdock (Arctium minus) was found on the site in May 2015. This species is on Colorado’s Noxious Weed Species List C, which defined the species for which the commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, will develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands.

El Paso County has a Noxious Weed Plan that provides guidelines for managing noxious weeds, including preventative measures and control techniques. Noxious weeds are often spread through activities such as construction, spreading gravel, or applying topsoil. Preventing the spread of weeds can be accomplished by identifying and eradicating small infestations early on (El Paso County 2014).

### 3.7.2 Effects of the Preferred Alternative

Minor, short-term, adverse impacts and minor, long-term, beneficial impacts on wildlife and habitat would be expected. No significant changes to topography or drainage that could affect habitat and wildlife would be expected from the Preferred Alternative. The proposed cemetery would include site development that would complement the area’s natural state, to be designed in concert with the natural topography, drainage patterns, native species, and supporting habitat.

Although the Arkansas darter has not been observed on the site, it has been found in a branch of Jimmy Camp Creek within 1 mile of the site boundary. Corral Creek, a tributary to Jimmy Camp Creek, passes through the project area upstream of known Arkansas darter habitat. Furthermore, the entire project site is within the watershed of these water bodies, including the proposed relocation of the Franceville floodway channel. Although there are no direct effects associated with the Preferred Alternative that would affect the darter, there is the potential for indirect effects given the location of these activities within the watershed. Specifically, soil disturbance associated with site preparation, construction, and the relocation of the Franceville floodway channel may in the potential for short-term increases in sedimentation to onsite wetlands and tributaries to Jimmy Camp Creek. These impacts would be minimized through the use of erosion and sediment control BMPs, as described in Section 3.4.4, as well as design features that reduce the potential for sedimentation. Contractors would maintain a minimum 200-foot buffer between the wetlands identified on site and any construction activities or ground disturbance associated with the Preferred Alternative. The channelization of the Franceville floodway and associated construction
of a stormwater retention pond would enhance the predictability of flooding scenarios and increase water retention, protecting existing wetlands from future scour or rapid flooding common with this region of the country. In the long-term, this would improve the quality of the wetlands on-site, resulting in minor, long-term, beneficial impacts on the wetland habitat and actually improving water quality further downstream during storm events relative to current conditions. As such, the Preferred Alternative would result in long-term, minor, beneficial effects to the Arkansas darter and other aquatic life and their habitat further downstream.

Of the state-listed species, only the bald eagle is listed as a threatened species. Known to occur near estuaries, rivers, lakes, and marshes, it is unlikely that bald eagles would be affected by the project due to the lack of large open water areas in the vicinity of the site; however, potential habitat occurs near the project study area (Atkins Global 2015a). To comply with the BGEPA, consultation with the USFWS would occur should any nests be identified prior to or during construction.

Three state-listed species are Species of Special Concern, including the mountain plover (Charadrius montanus), black-tailed prairie dog, and the swift fox (Vulpes velox). All of these species’ habitat exist within the project study area, but neither the mountain plover nor the swift fox have been identified on site. Black-tailed prairie dogs are the only state-listed species known to occur on site. To reduce future impacts to black-tailed prairie dogs, the site would be surveyed for recent activity and adjustments would be made to the final design where practical to avoid adverse impacts to their habitat and the existing population. Physical and visual barriers could be used to discourage expansion of black-tailed prairie dog dwellings onto the project site. For existing dwellings that cannot be avoided, individuals directly affected by near-term construction activities may be relocated to reduce harm to the population. The architecture and engineering contractor is currently working with the CPW to develop management plans related to potential impacts on prairie dog habitat.

3.7.3 Effects of the No Action Alternative

Under the No Action Alternative, there would be no construction or operation of a National Cemetery on the site and, therefore, no effect on existing habitat and wildlife.

3.7.4 Minimization/Management Measures

Since the Proposed Action would not present any significant adverse effects on wildlife and habitat, specific minimization measures would not be required. However, a number of BMPs would be employed to minimize the potential adverse impacts associated with the Preferred Alternative.

Habitat

Management measures associated with protecting, maintaining, and enhancing habitat on-site and in the vicinity of the Proposed Action include the following:

- Avoid to the greatest extent practicable any ground disturbing activities within 200 feet of identified wetlands and surface waters.
- Utilize erosion and sediment control BMPs to minimize short-term sedimentation of downstream wetlands and water bodies.
• Consult with the USFWS and CPW to minimize adverse effects to wildlife resources and habitat prior to construction.
• Implement flood control measures that enhance the predictability of local flood regimes and reduce impacts to wetlands and water bodies associated with scour and other flood effects.

Vegetation and Noxious Weeds
Management practices associated with eliminating noxious vegetation and preventing the proliferation of weeds include the following:

• Utilize native species for landscaping and when revegetating land disturbed by construction to avoid the potential introduction of non-native or invasive species.
• Implement preventative efforts to prevent the establishment of noxious weeds.
• Prioritize control and elimination of weeds that are already established, and taking prompt action to eradicate the species.
• Integrate specific site BMPs such as erosion control measures for spoils areas, which include actions such as soil reinforcement BMPs (i.e., grass stabilization, soil reinforced geotextiles) and straw wattles around the downslope of the pile, would also contribute to measures toward preventing noxious weed establishment.

3.8 Cultural Resources
Section 106 and Section 110 of the National Historic Preservation Act (NHPA) (Public Law 89-655, 54 U.S.C. § 300101 et seq.) ensure that all federal agencies take into account the effects of their undertakings (proposed programs, projects, and actions) on 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), and to afford the ACHP a reasonable opportunity to review and comment on any action that may affect properties that are listed, or are eligible for listing, on the NRHP. Eligibility for the NRHP is based on the following (36 CFR 60.4):

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

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

3.8.1 Existing Conditions
The Area of Potential Effect (APE) of 126 acres for cultural resources includes the Phase 1 construction footprint at the Drennan Road property described in the Proposed Action as well as adjacent areas identified as the limit of disturbance for site preparation and construction personnel. Specific areas of interest may include facilities of historic interest, historic districts outside of the project boundaries, as well as Native American Tribal entities that are federally
recognized as having historic interests in the area. An alternative would have a significant effect on cultural resources if it resulted in damage, destruction, or demolition of an archaeological site or building that is eligible for or listed on the NRHP; promoted neglect of such a resource, resulting in resource deterioration or destruction; introduced audio or visual intrusion to such a resource; or decreased access to resources of value to federally recognized Native American tribes. Coordination with Native American tribes is included in Appendix C.

The entire Rolling Hills Ranch property, including the Phase 1 project area, was surveyed in 2006 by RMC Consultants, Inc. for the Rolling Hills Ranch developer. Additional surveys were also completed, including an access road survey, a block survey of private land along Jimmy Camp Creek, an oil and gas pipeline survey, and a water pipeline survey (Bugg 2012). Findings from these surveys were an historic farm (5EP5121), the Franceville Spur of the Denver and New Orleans Railroad (5EP2174.1), both assessed as not eligible for listing on the National Register of Historic Places (NRHP); and one historic (5EP5114) and 12 prehistoric isolated finds (5EP2583, 5EP2584, 5EP5100–5EP5106, and 5EP5111–5EP5113), all assessed as not eligible for listing on the NRHP. Site 5EP5099 is a prehistoric open camp, and four prehistoric open lithic scatters (5EP5107–5EP5110) were recorded and assessed as not eligible (Bugg 2012). Jimmy Camp Creek, which runs along the western boundary of the proposed site location, marks an important travel corridor for both prehistoric and historic peoples.

3.8.1.1 Archaeological Resources

Two archaeological surveys were completed in the APE specifically for the proposed new cemetery. The first survey, reported in *Initial Cultural Resource Impact Prediction for the New Southern Colorado National Cemetery in El Paso County Colorado* (Bugg 2012) identified six archaeological sites within the APE. These sites are summarized in Table 3-2.

A Class III intensive inventory of the area was not recommended because surveys had already been completed. However, the consultant (Bugg 2012) did recommend that the previously recorded archaeological sites be revisited and evaluated for changes in condition. As a result of that recommendation, a follow-up pedestrian survey was conducted by Marstel-Day in 2015 (Appendix A). That survey relocated all six archaeological sites and confirmed the recommendation of “not eligible” for the NRHP for all of the finds, with the exception of Site 5EP5103, where additional work was recommended based on additional finds during that survey.

<table>
<thead>
<tr>
<th>Site</th>
<th>Description</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5EP5103</td>
<td>Isolated find, prehistoric scatter</td>
<td>Redraw site boundary and conduct subsurface test excavations</td>
</tr>
<tr>
<td>5EP5104</td>
<td>Isolated find, prehistoric scatter</td>
<td>Ineligible; no further work</td>
</tr>
<tr>
<td>5EP5107</td>
<td>Open lithic scatter</td>
<td>Ineligible; no further work</td>
</tr>
<tr>
<td>5EP5108</td>
<td>Open lithic scatter</td>
<td>Ineligible; no further work</td>
</tr>
<tr>
<td>5EP5109</td>
<td>Open lithic scatter</td>
<td>Ineligible; no further work</td>
</tr>
<tr>
<td>5EP5121</td>
<td>Historic ranch/farm</td>
<td>Ineligible; no further work</td>
</tr>
</tbody>
</table>
Site 5EP5103 is recorded as an isolated find consisting of three flakes. This site is classified as a prehistoric lithic reduction site of unknown cultural affiliation and ineligible for listing on the NRHP. Present conditions include a moderate ground cover of grasses, small bushes, and some cacti, as well as evidence of cattle grazing. Evidence of slight disturbance from animal burrows is present. The site is in good condition. A large prehistoric ceramic sherd, two smaller sherds, and a flake were observed within 15 meters east of the site, in the backdirt piles of two animal burrows.

For Site 5EP5103, it was recommended that the site boundary be redrawn to include these artifacts, the designation as an isolated find be reconsidered, the large ceramic sherd be analyzed for its potential to provide a date range, and consideration be given to subsurface testing, as the observed artifacts were found in backdirt piles. It was recommended that subsurface testing take place according to a systematic grid, and that the soil matrix be screened to determine if reconsideration of NRHP eligibility would be warranted.

The VA related the recommendation for further subsurface testing at Site 5EP5103 to the Colorado SHPO in February 2016 pursuant to Section 106 of the NHPA. The Colorado SHPO further recommended phased subsurface identification and evaluation of the APE to gather further information regarding the site’s significance and integrity as they relate to the NRHP. Based on the preliminary report and subsequent discussion with the SHPO, the VA submitted a work plan to the SHPO for additional fieldwork in May 2016. To comply with Section 106 of the NHPA, the SHPO approved the plan for a Phase I archaeological survey in June 2016. The VA conducted archaeological shovel testing of the 126-acre construction Phase 1 APE, and Phase I subsurface delineation of Site 5EP5103 in November and December 2016.

Phase I subsurface survey of the 126-acre construction Phase 1 APE was accomplished through excavation of approximately 1,960 shovel tests. High and medium probabilities were assigned to areas of the APE based on an evaluation of the NRCS El Paso County, Colorado Soil Survey, Soil Taxonomy, and Official Soil Series Descriptions (NRCS 2014). The VA determined that Sites 5EP5103 and 5EP5104 should remain classified as isolated finds and ineligible for listing on the NRHP, and that no further work was required for the high-probability area. No archaeological remains were identified in the medium-probability area, and the VA recommended no further archaeological fieldwork in this area. The methodology, findings, and recommendations associated with the field survey are included in the form of a letter report that was shared with the Colorado SHPO and Native American tribes.

3.8.2 Effects of the Preferred Alternative

The Preferred Alternative could result in negligible, long-term, adverse impacts on cultural resources. During Section 106 cultural resources consultation with the Colorado SHPO, the VA developed an investigatory strategy for archaeological resources on the property. The VA intends to include an inadvertent discovery plan in the construction work plan (see Appendix A). This plan would state that upon discovery of cultural material at any point during construction, ground disturbance would be halted until the finds have been assessed by a professional archaeologist and if required, a treatment plan developed based on consultation between the VA and the Colorado SHPO and in accordance with the inadvertent discovery plan. The VA would require that the construction contractor have a professional archaeologist prepare and implement a pre-construction brief regarding unanticipated discoveries and provide the brief to onsite construction crews. The VA would further require that the construction contractor employ a professional archaeologist on an on-call basis to provide oversight to assess potential discoveries or evidence of cultural resources. With implementation of these minimization measures, effects on cultural resources would not be significant.
3.8.3 Effects of the No Action Alternative

Under the No Action Alternative, existing conditions would remain unchanged, and there would be no impacts on cultural resources. None of the proposed facilities associated with the Proposed Action would be constructed, and the undeveloped land would remain as open space. However, should the site be developed for another use, impacts on cultural resources could result from that changed land use. Potential alternative uses of the property could irrevocably destroy any unfound historic or prehistoric resources, or the potential to document and preserve any findings.

3.8.4 Minimization/Management Measures

Under the Preferred Alternative, additional measures would be taken to manage potential adverse effects associated with the site’s development as follows:

- The VA would require that the construction contractor have a professional archaeologist prepare and implement a pre-construction brief regarding unanticipated discoveries and provide the brief to onsite construction crews.
- The VA would further require that the construction contractor employ a professional archaeologist on an on-call basis to provide oversight to assess potential discoveries or evidence of cultural resources.
- If any archaeological resources were unearthed during construction or during excavation associated with burials, work would immediately cease and procedures for inadvertent discovery, as outlined in the Inadvertent Discovery Plan provided in Appendix A, would be followed. Appropriate SHPO and Native American Tribal councils would be advised and appropriate conservation measures would be implemented.
- In the event of discoveries of ancestral remains during construction activities, recognized cultural and lineal descendants would be notified and consulted on matters of burial treatment as outlined in the Inadvertent Discovery Plan provided in Appendix A.
- Recognized cultural and lineal descendants would be granted access rights to conduct traditional and customary burial practices on-site if as-yet undiscovered ancestral remains are discovered during the construction phase.

3.9 Noise

3.9.1 Existing Conditions

The site is located in a quiet rural area surrounded by agricultural land uses, with some proximate low- to medium-density residential uses. The area is relatively quiet and the sounds are largely typical of agricultural and low-density residential land uses. The principal sources of noise in the area are associated with traffic along nearby roads (Drennan Road, Marksheffel Boulevard, and Bradley Road). Occasional but more intense noise is associated with air traffic from Peterson Air Force Base and Colorado Springs Airport, which are co-located approximately 2.5 miles west-northwest of the site.

Sensitive noise receptors include a medium-density housing development located approximately 0.5 miles west of the site and a low-density housing development located 0.5 miles east-northeast of the site.

3.9.2 Effects of the Preferred Alternative

The Preferred Alternative would result in minor, short-term, adverse noise impacts, concurrent with the PEA (VA 2012). The area around the cemetery site would experience a slight, temporary,
and intermittent increase in noise levels during construction. This would include noise from construction vehicles entering and exiting the cemetery and land preparation, grading, and other construction work.

Following construction, the site would generate intermittent noise levels associated with a cemetery, at a level similar to historic ranching operations. Normal cemetery operations, which include noises associated with the operation and maintenance of the cemetery and regular committal services and other ceremonial activities, would result in minor, long-term, adverse impacts. This is consistent with the impacts anticipated in the PEA, although the original study does not address noise associated with rifle salutes. The M-16 (5.56 caliber) blank round rifle salutes used during committal services are the most substantial long-term source of noise at National Cemeteries. Salutes range in number from three to five at a target distance of 50 meters, and last less than 10 seconds. Services would take place at two committal service shelters on the site. Up to 12 ceremonies would occur per day on weekdays between the hours of 8:00 a.m. and 4:30 p.m., with occasional services on weekends.

The sensitive land use closest to the proposed committal service shelters is medium-density residential housing west of the site, along Horizon View Drive. The closest residence is located approximately 2,830 feet (863 meters) from Committal Service Shelter 2. For sensitive land uses, it is the consensus among federal agencies that average noise levels below 65 decibels (dB) over a 24-hour period (day-night average sound level [DNL]) are compatible with noise-sensitive land uses such as homes, schools, medical facilities, and churches (USEPA 1973, 1974).

Based on U.S. Army estimates for A-weighted sound exposure levels (ASEL) for M-16 rifle blanks at 800 to 1,600 meters away, these residents could experience single event level intermittent noise between 41 dB and 31 dB (VA 2013). As a point of reference, 60 dB is the measured loudness of normal conversation, and a standard telephone dial tone is measured at approximately 80 dB. These sound levels do not account for the noise-baffling effects of tree lines and vegetation. Therefore, anticipated sound levels would likely be lower. Furthermore, the estimated noise from M-16 rifle blanks would be well below the generally accepted threshold of 65 dB DNL for the average noise level in a 24-hour period for sensitive land uses, since the highest peak noise during the 10-second gun salute event is still below the threshold, at 200 meters. Figure 3-5 provides a visual representation of the noise levels associated to the Preferred Alternative.

3.9.3 Effects of the No Action Alternative

The No Action Alternative would result in no impact on noise relative to current conditions at the site.

3.9.4 Minimization/Management Measures

Implementing BMPs to reduce noise generated during construction would further minimize the potential effects on the local noise environment. Though no project-specific minimization measures would be required, the construction contractor would implement the following typical noise-control BMPs, as applicable, to minimize the potential for adverse noise impacts.

- Limit construction activity to daylight hours.
- Use properly maintained and muffled vehicles and equipment.
- Observe local noise ordinances at all times.
- Locate stationary operating equipment as far away from surrounding residents as possible. Shut down heavy equipment and other noise emitters when they are not in use.
Figure 3-5. Estimated M-16 Blank Noise Levels at Various Distances

<table>
<thead>
<tr>
<th>Distance (m)</th>
<th>ASEL (dBA)</th>
<th>$L_{max}$ (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>54</td>
<td>63</td>
</tr>
<tr>
<td>400</td>
<td>40</td>
<td>49</td>
</tr>
<tr>
<td>800</td>
<td>32</td>
<td>41</td>
</tr>
<tr>
<td>1,600</td>
<td>22</td>
<td>31</td>
</tr>
</tbody>
</table>

January 2016
Source: Department of Veterans Affairs, Balance Environmental, ESRI Basemap 2015
3.10 Utilities

3.10.1 Existing Conditions

The site is currently undeveloped; thus, there are no utilities servicing the site. Based on the final MP5 design, utilities that would be required during the construction and operation of the National Cemetery include domestic water, fire protection service water, irrigation water, sanitary sewer/septic system, stormwater, electricity, natural gas/propane, and telecommunication.

3.10.1.1 Water

Domestic water is currently unavailable at the site. Until domestic water service is made available, on-site water wells are required to accommodate facilities at the site. Per the *Irrigation Water Source Study Report*, WWSD has exclusive rights to provide water and sanitation services for the National Cemetery.

The site overlays, and is adjacent to, the Jimmy Camp Creek Alluvium. Multiple entities in the Colorado Springs area use the Jimmy Camp Creek Alluvium as a water source. WWSD already has wells in this area, and has a water augmentation plan in place with the State of Colorado. Since a water augmentation plan is in place, the installation of the new well will not need Water Court adjudication and can be handled via an administrative change. According to WWSD, wells in the Jimmy Camp Creek Alluvium produce in the range of 120 to 180 gallons per minute, at a depth of approximately 50 feet.

3.10.1.2 Sanitary Sewer

Sanitary sewer service is currently unavailable at the site. CSU supplies sanitary sewer service to the site area. Sanitary sewer service is anticipated at the site in the future; however, the timeframe is currently unknown. Until sanitary sewer service is made available, on-site septic systems are required to accommodate facilities at the site.

3.10.1.3 Electricity

Electrical service is currently unavailable at the site. A utility corridor that includes overhead electric lines is located along the eastern boundary of the site. MVEA would provide electrical service to the site via an extension from the utility corridor located along the eastern boundary. Electricity would be routed from the overhead lines located in the utility corridor to an underground system at the site.

3.10.1.4 Natural Gas

Natural gas is currently unavailable at the site. There is an existing gas service on Bradley Road (located to the south of the site) (VA 2012). In addition, there is a utility corridor that includes a natural gas pipeline located along the eastern boundary of the site. CSU supplies natural gas service to the site area. CSU's nearest natural gas distribution line is located approximately two miles away. Due to the distance from CSU's nearest natural gas distribution line to the site, extension of the natural gas line is currently economically infeasible. Future construction in the area may extend natural gas service to the site. Until natural gas service is made available, propane may be used as a fuel source at the site.
3.10.1.5 Telecommunications

Telecommunication services are currently available to the site area. CenturyLink currently provides copper and fiber services along Drennan Road, located north of the site. Telecommunication requirements needed at the site include Internet, telephone, and television. A conduit would be extended from the service located on Drennan Road (north of the site) to the site.

3.10.2 Effects of the Preferred Alternative

The Preferred Action would have negligible-to-minor, adverse impacts on utilities. All major utility services (i.e., water, sanitary sewer, electricity, natural gas, and telecommunications) are available immediately next to, or in close proximity to, the site, as described. Utilities are available and are supplied by local service providers.

The Preferred Action would have negligible, short-term, adverse impacts on water availability. Domestic water service to the site would be provided by on-site wells and pumped to each facility. Based on the final MP5 design, domestic water usage is estimated to be approximately 900 gallons per day for all facilities. The VA would be responsible for any water treatment, and for delivering the water to the site. The required discharge pressure of the pumps would need to be coordinated with WWSD. The primary water usage for the facilities will be restrooms. Capacity exists to exceed projected water demands beyond the Phase 1 development.

The Preferred Alternative would require large volumes of irrigation water to maintain landscaped areas and the cemetery grounds. Phase 1 development is estimated to include 27.5 irrigated acres. The estimated watering needs for this area is 186,500 GPD at peak season and 35.8 MG annually. At the completion of Phases 1 through 3, which accounts for approximately 36.4 irrigated acres, the peak season daily water use is estimated to be 246,800 GPD, with an annual water use of 47.4 MG. Irrigation ponds would be designed to store three to four days of usable water for onsite irrigation, supplementing flows from the Jimmy Camp Creek alluvium to meet peak irrigation demands. The final design includes a central control system that would utilize field satellites, weather stations, and soil moisture systems to maintain the cemetery to VA standards while minimizing water used for irrigation. According to the MP5 report, in as few as five years, water may be piped in from Big Johnson Reservoir, which has excess capacity and a quality of water better suited for irrigation (AES Group, Inc. 2015). Therefore, the Preferred Alternative would be expected to have no impact on local water availability due to irrigation demands.

The Preferred Alternative is estimated to require sanitary sewer services for 240 planned visitors per day using approximately 2 gallons of sanitary sewer capacity. Because extension of the sanitary sewer system in the site area is currently not practical, a septic system would support each facility onsite. The facility septic systems would be designed to provide excess capacity, with each of the maintenance, honor guard, and administration/PIC facilities supporting up to 330 visitors per day. Public bathrooms would be closed and portable toilets would be brought in to handle the increased sanitary sewer demand during major holidays, such as Memorial Day. Due to the generation of soap and oil at the vehicle maintenance bay, an independent system would be installed to accommodate discharge from the vehicle maintenance bay; therefore, septic systems are proposed to accommodate discharge. Future development in the site area may make extension of the sanitary sewer system to the site area practical. Extension of the sanitary sewer system to the site would require crossing Jimmy Camp Creek, which, in turn, would require that the proposed sewer be open-trench constructed, bored under the Jimmy Camp Creek, or...
attached to the existing bridge. Under such a contingency, a separate environmental assessment would analyze the impacts of public sanitary sewer extension.

Based on the final MP5 design, electrical needs at the site would require a standard amount of power from MVEA. Current designs include anticipated provision of 7,200 volt/12,470 three-phase primary electrical service through MVEA, which has ample capacity to supply service to the site. Therefore, no adverse impacts to electrical utilities would be anticipated from the Preferred Alternative. Power would be required for the new buildings including the administrative building, maintenance building, irrigation pump house, committal service shelters, and honor guard building. The administrative and maintenance buildings would have a diesel-driven standby generator to provide an alternate source of power, in the event that normal power is lost. Life safety systems, for the buildings that do not have a diesel generator, would have either battery packs or lighting inverters to provide an alternate source of power, in the event that normal power is lost. Existing overhead electrical towers within the Drennan Road right-of-way (located north of the site) would not be affected by the Preferred Alternative. New electric lines would cross the existing utilities within the Drennan Road right-of-way at required separation distances.

The Preferred Alternative would have minimal needs for natural gas. Natural gas would likely be used for heating and domestic hot water production at the site. As mentioned, natural gas is available in the site area; however, extension of the natural gas line is currently economically infeasible. Until natural gas service is made available, propane may be used as a fuel source at the site. Existing high-pressure gas lines within the Drennan Road right-of-way (located north of the site) would not be affected by the Preferred Alternative. New gas lines would cross the existing utilities within the Drennan Road right-of-way at required separation distances.

The Preferred Alternative would have normal needs for telecommunications service. Phone, television, and data service would likely be provided to the administrative/PIC, maintenance, and honor guard building at the site. A security system would also be installed that might include closed-circuit cameras, intrusion detection, and electronic card readers. As mentioned, telecommunications are readily available in the area and are likely to be adequate for the Preferred Alternative. Therefore, no impacts associated with telecommunications service would be expected.

3.10.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by the VA would occur. Therefore, no impacts on utilities would be anticipated and the purpose of, and need for, a National Cemetery would not be satisfied.

3.10.4 Minimization/Management Measures

In an effort to maintain potential effects on utilities at acceptable levels, design plans would be submitted to each available utility provider to determine specific connection requirements and to implement these requirements. Since the Preferred Alternative would not present any significant adverse effects on utilities, specific minimization measures would not be required.
3.11 Transportation and Parking

3.11.1 Existing Conditions

No paved roads, public transportation, or permanent access to the site currently exist. There is one roadway, Drennan Road, bordering the site. Drennan Road is a two-lane, east-west-oriented road that is adjacent to the northern boundary of the property, and that has a current estimated Level of Service (LOS) rating of B. No LOS information was provided by the Colorado Department of Transportation or El Paso County; LOS ratings are estimates based on site observations. Drennan Road is the only roadway that borders the site. Under current conditions, Drennan Road operates at, or above, acceptable LOS ratings, mainly due to the lack of development in the vicinity of the site.

Drennan Road has a posted speed limit of 50 miles per hour (mph) and the current road geometry that provides ample sight distance. Traffic count data collected between 1996 and 2009 was available from El Paso County. These counts show an average daily trip (ADT) in both directions of approximately 1,545. Peak traffic counts were also available from El Paso County from a corridor preservation plan that was developed for Marksheffel Road in 2013. As part of this study, turning movement counts were conducted at Drennan Road. These counts showed a peak hour count of 195 in both directions.

3.11.2 Effects of the Preferred Alternative

The Preferred Action would have negligible, short-term and long-term, adverse impacts on transportation. Construction and operation of the project site by the VA would produce no direct parking effects, mostly because the design has accounted for sufficient parking during the operational phase. Construction of Phase 1A and B is expected to take between 18 and 24 months; however, Phase 1A is expected to be completed within 8 months. There would be a total of 92 parking spaces at project completion to accommodate visitors and staff, with additional parallel parking in designated areas. Construction traffic, consisting of trucks, workers’ personal vehicles, and construction equipment, would increase traffic volumes in the local area, and could cause minor delays if this occurred during morning and evening peak periods. Installation and connection of utilities, located within or adjacent roadways, could also affect local roadways. Preliminary consultation with El Paso County indicated that Phase 1 construction and operational activities are not likely to affect traffic in the immediate vicinity of the project site. Thus, only negligible effects would be anticipated during and following Phase 1 construction and operational activities.

Normal cemetery operations would not generate significant traffic. Typically, employee traffic would be expected to result in 10 to 15 vehicles per day. Interments and other occasional special events could generate larger numbers of vehicles, of up to 20 cars per event, with an expected maximum of three to five interments per day, but the road system would be capable of handling the increased traffic. On-site employee and visitor parking would be provided. Although traffic is expected to increase slightly for interment services, based on area zoning and future development, it is anticipated that there would be minimal impacts on roadways and LOS.

Under Phase 1 of the Preferred Alternative, there would be minor repairs and roadway improvements along the project frontage on Drennan Road. An additional turning lane at Drennan Road was also analyzed, but it was determined that it is not necessary for Phase 1A or 1B (Day 2016a). However, a turning lane may be included in future phases for the proposed cemetery.
Based on the proposed maximum usage estimates, operational traffic would not produce a significant adverse effect on local traffic conditions. The additional daily traffic associated with the Preferred Alternative (estimated at 40 vehicle trips/day, as discussed above) would be a 2.6 percent increase over the 1,545 ADT levels at Drennan Road. Although funeral processions could have some traffic effects at peak times, the overall effects would be less than significant.

3.11.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by the VA would occur, no impacts on transportation or parking would be anticipated.

3.11.4 Minimization/Management Measures

Since the Proposed Action would not present any significant adverse effects on transportation and parking, no project-specific minimization measures are required. Implementing BMPs to reduce transportation effects would further minimize the potential effects to local roadways. As part of the Preferred Alternative, transportation effects would be maintained at acceptable levels through implementation of the following BMPs:

- Coordinate with local officials and the Colorado Department of Transportation (CDOT) to ensure that construction and operational traffic are considered in the planning of future transportation improvements in this vicinity.
- Coordinate with CDOT to identify and implement roadway improvements, as necessary, such as turn lanes signalization.
- Prevent deposit of debris and soil on local roadways during the construction period.
- Plan construction activities to limit the effects to traffic flow on local roadways; time construction activities to avoid peak travel hours.

Implementation of these BMPs would ensure that transportation effects are maintained at less than significant levels by properly controlling and limiting effects on local traffic and transportation infrastructure during construction and operation.

3.12 Cumulative Effects

As defined by CEQ Regulations in 40 CFR 1508.7, a cumulative impact is that which “results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”

Cumulative impact analysis captures the effects that result from the Preferred Alternative in combination with the effects of other actions taken during the duration of the Preferred Alternative in the same geographic area. Because of extensive influences of multiple forces, cumulative effects are the most difficult to analyze.

NEPA requires the analysis of cumulative environmental effects of a Preferred Alternative, or set of actions, on resources that might often be manifested only at the cumulative level, such as traffic congestion, air quality, noise, biological resources, cultural resources, socioeconomic conditions, utility system capacities, and others.
3.12.1 Considered Cumulative Actions

As discussed throughout the VA’s 2012 Final PEA and Chapters 2 and 3 of this SEA, the Proposed Action would retain many of the current features at the site, while preserving natural resources and open space through environmentally sensitive development. Overall, no significant adverse cumulative effects on the environment, induced by changes by the Proposed Action, are anticipated within the ROI.

As the population has grown in El Paso County, land development has increased, generally concentrated in a linear, north-south direction east of the Front Range along Interstate 25, with the majority of the housing and the employment growth occurring within the city limits of Colorado Springs. Overall, the land development pattern in the unincorporated El Paso County is dominated by residential uses (El Paso County 1995).

Since the mid-1970, El Paso County’s comprehensive planning efforts have been focused through identified sub-areas of the unincorporated county. These sub-areas have comprehensive plans, known as small-area plans, which are incorporated into the county’s master plan. The new VA National Cemetery site is located within the Highway 94 sub-area; the 2003 Highway 94 Comprehensive Plan is the official policy document guiding long-range planning and community development in the Highway 94 planning area. It provides a basis for zoning and subdivision regulations, and provides guidance for property owners, residents, and decision makers regarding land use (El Paso County 2003).

The project site is located within the approximately 18,000 acre Banning Lewis Ranch Master Plan area. Expansion adjacent to the project site property is expected to include low density residential communities for the adjoining properties to the north, west, and south. Improvements to Marksheffel Road between U.S. Route 24 and Link Road, located within two miles of the proposed site’s western boundary, are expected to expand transportation capacity in anticipation of future development. Other projected land uses within the Highway 94 planning area include research and development and institutional land uses on the west side of Marksheffel Boulevard between Drennan Road and Bradley Road, in conformance with the Highway 94 sub-area plan (El Paso County 2015). The proposed establishment and operation of a National Cemetery in this area would not significantly contribute to or increase any of the aesthetic, land use, socioeconomic, or other resource effects potentially associated with the realization of the Banning Lewis Master Plan.

3.12.2 Effects of Cumulative Actions on the Preferred Alternative

The Preferred Alternative would result in the effects identified throughout Chapter 3 and in the Final PEA. These include potential negligible-to-minor, adverse effects on aesthetics (short- and long-term), air quality (short- and long-term), cultural resources (long-term), geology and soils (short- and long-term), hydrology and water quality (short- and long-term), wildlife and habitat (short- and long-term), noise (short- and long-term), wetlands and floodplains (short- and long-term), utilities (short-term), and transportation and parking (short- and long-term). All of these effects would be further reduced through careful coordination and implementation of general BMPs, management measures, and compliance with regulatory requirements, as identified throughout Chapter 3 and in the Final PEA. No adverse effects on land use, solid and hazardous materials, socioeconomics, community services, or environmental justice would occur. As such, no cumulative adverse effects on any of these resource areas are anticipated. Cumulative net beneficial effects on land use and the local socioeconomic environment would be realized.
In the context of anticipated regional and local growth, the Preferred Alternative would be expected to contribute to negligible, adverse cumulative effects as they pertain to traffic congestion, noise, and utilities. Increased residential and commercial development in the vicinity of the site would result in commensurate increases in ambient noise and demand for transportation and utility resources. For the most part, the local area is in the early stages of converting from ranch/agricultural uses to more intensive land uses. The regional growth context would be further analyzed with each phase of the cemetery development, with specific analysis of cumulative impacts associated with concurrent growth on- and off-site.

The Preferred Alternative would not noticeably contribute to on-site and regional decline in natural resources, and would maintain or enhance the local socioeconomic environment through indirect, beneficial effects. If the VA moves forward with plans to use an on-site groundwater well to support irrigation needs, it is possible that the local groundwater table would be lowered over time; however, based on the desired flow rate for the well and the availability of groundwater in the area, the drawdown would be limited to the property and would not contribute to any local or regional decline in groundwater resources. If the VA uses potable water from the city to support irrigation operations at the site, the VA's demand for potable water, in combination with the increased demand resulting from other projects in the area, would contribute to increased stress on the network of groundwater wells that supplies potable water to the area.

Visitors and VA employees who drive to the National Cemetery would contribute to an overall increase in traffic in the area of the site; however, the increased traffic volume, when considered with other planned and potential developments in the area, would be adequately handled by the existing public roadways in the vicinity of the proposed National Cemetery through Phase 1 of the Proposed Action. Subsequent phases, each of which could induce additional traffic demands in the vicinity of the site, will be subject to individual environmental analyses. Potential impacts to traffic would be considered at each stage and transportation improvements would be considered and, if necessary, recommended within the context of contemporaneous local traffic demands.

No cumulative beneficial or adverse impacts are expected from the Phase 1 construction and operation of the new VA National Cemetery at the proposed site. Close coordination between the agencies listed in Section 4.1.2 and Chapter 10 of this SEA, coupled with enforcement of applicable, current and future regulations, ordinances, and laws (see Chapter 11), would serve to manage and control cumulative effects within the ROI, including managing regional transportation increases with adequate infrastructure. Implementation of land use and resource management plans would serve to control the extent of environmental effects, and proper planning would ensure that future socioeconomic conditions maintain, if not improve, the local standard of living in accordance with the El Paso County and Highway 94 Comprehensive Plan. Implementation of effective resource management plans and programs should minimize or eliminate any potential cumulative degradation of the natural ecosystem and cultural resources within the ROI.

3.12.3 Effects of Cumulative Action under the No Action Alternative

Under the No Action Alternative, the new VA National Cemetery in southern Colorado would not be developed, and would not meet veterans' burial needs in the region. The VA would not be able to provide veterans in southern Colorado with a suitable, relatively local National Cemetery for proper burial. These veterans would be required to use another National Cemetery, if available, or another burial option. Due to the speculative nature of proposed future site development under the No Action Alternative, a detailed cumulative effects analysis for the No Action Alternative is not possible, but the environmental benefits contributed by the Preferred Action to the cumulative changes in the ROI would not occur. Under the No Action Alternative, it is anticipated that the VA
would sell the property, and the property would be developed in accordance with local zoning and applicable regulations. Based on the development trends in the ROI, as shown above, this future development would likely include additional residential, industrial, institutional, and/or commercial development. Under this scenario, the benefits of the Proposed Action, such as open space retention, localized stormwater/flooding reduction, and the like, would not occur.

3.13 Potential for Generating Substantial Public Controversy

As discussed in Chapter 4, the VA solicited input from various federal, state, and local government agencies regarding the Proposed Action. As part of the public outreach effort, letters were disseminated to the federal, state, and local agencies and Tribal entities identified in Chapter 10. In addition, the VA, as the federal proponent of this Proposed Action, published and distributed the Draft SEA for a 30-day public comment period, as announced by a Notice of Availability (NOA) published in the *Pueblo Chieftain* and the *Gazette* newspapers. Review copies of the Draft SEA were made available for public review at the Ruth Holly and Sand Creek branches of the Pikes Peak Library District, and on the VA website.

Based on beneficial effects of the Preferred Alternative, responses during the scoping meeting, and minimal responses received during the public comment period, there appears to be little potential for generating public controversy. Because the planned development of the site would occur in a manner that is consistent with local land use plans, and considering the absence of identified opposition during the PEA and SEA processes, it is not anticipated that there would be substantial public controversy regarding the Proposed Action. The No Action Alternative may result in a controversy concerning veterans’ desire for interment in a veteran’s cemetery. No Action would result in no burials at the site, requiring veterans to either be buried in the nearest National Cemetery (over 75 miles away) or resort to private burials.
This chapter describes the public, agency, and Native American consultation process associated with development of this SEA.

4.1 Public and Agency 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 NEPA. Additional guidance is provided in the 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 that have a potential interest in the Proposed Action are urged to participate. A record of agency coordination and public involvement associated with this SEA is provided in Appendix B. Public comment records associated with the Final PEA are provided in Appendix E of that document.

4.1.1 Public Scoping Process

During the SEA process, the VA held a public scoping meeting on October 21, 2015, at the Retired Enlisted Association to discuss and receive input concerning the Proposed Action.

There were approximately 19 attendees, as well as two individuals from the VA. Representatives from AES Group, the company that is developing the cemetery master plan, were also in attendance. Participants from the community spoke and were recorded. Participants included interested citizens and veterans, local government office representatives, and members of a local veterans’ cemetery committee. Most questions centered on the master planning process and specific design questions. Several comments and questions focused on the roadway approaching the National Cemetery, and whether improvements would be made as part of the cemetery site construction. An attendee from Senator Bennet’s office inquired about the VA’s role in the roadway approaching the cemetery, as well as expected water infrastructure on the cemetery site. One citizen inquired about prairie dogs currently living on the site. A member of the Pikes Peak National Veterans Cemetery Committee asked about the floodplain area on the site, on-site erosion abatement measures, and potential effects on views of Pikes Peak.

4.1.2 Agency Coordination

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding federal Proposed Actions. CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental effects. Through the IICEP process, the VA notifies relevant federal, state, and local agencies and allows them sufficient time to make known their environmental concerns that are specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental effects conducted as part of the SEA. This coordination fulfills requirements under EO 12372, Intergovernmental Review of Federal Programs (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires federal agencies to cooperate with, and consider, state and local views in implementing a federal proposal. It also constitutes the IICEP process for this document.
A full list of agencies and individuals coordinated with during the preparation of this SEA can be found in Chapter 10 and Appendix B. Some of the agencies the VA coordinated with during the PEA and SEA public involvement process include the following:

- USACE, Omaha District
- USDA
- USDA NRCS
- U.S. Department of the Interior
- U.S. Forest Service, Rocky Mountain Region
- U.S. Environmental Protection Agency
- U.S. Department of Veterans Affairs
- Colorado State Historic Preservation Office
- Colorado State Forest Service – South Area Forester
- CDOT – Region 2
- Colorado Department of Agriculture – Division of Conservation Services
- Colorado Department of Natural Resources
- Colorado Water Conservation Board

4.1.3 Public Review

The VA, as the federal proponent of this Proposed Action, published and distributed the Draft SEA for a 30-day public comment period beginning June 2, 2016, which was announced by an NOA published in the *Pueblo Chieftain* and the *Colorado Springs Gazette* newspapers. Copies were available for public review at the Ruth Holly and Sand Creek branches of the Pikes Peak Library District, and on the VA website. As part of the public review process, letters were distributed to local, state, and federal agencies and Tribal entities as identified in Chapter 10 of this SEA. No public comments were received during the public review period. Agency comments received included concurrence from the USFWS that no federally listed species are known or are likely to occur within the project area.

4.1.4 Native American Consultation

For federal 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, and EO 13175. As part of the Final PEA (VA 2012), the VA identified three Native American tribes (i.e., the Arapahoe Tribe of the Wind River Reservation, Wyoming; Cheyenne and Arapaho Tribes, Oklahoma; and Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana) as having possible ancestral ties to the Proposed Action’s ROI (i.e., El Paso County, Colorado), and invited each tribe by letter to consult on this Proposed Action. The VA identified these tribes based on the Native American Consultation Database and the Colorado State Historic Preservation Office. Chapter 10 of this SEA contains a list of the federally recognized Native American tribes invited to consult during both the PEA and SEA process. Of the Tribal entities consulted, the VA received comments only from the Comanche Nation and the Cheyenne and Arapaho Tribes. Both entities indicated that no properties were identified in the vicinity of the proposed project site; however, they did request further consultation in the event of inadvertent discoveries during project implementation. Responses received from consulted tribes can be found in Appendix C.
This chapter summarizes the management measures (as applicable) identified in Chapter 3 that are proposed to minimize and control adverse effects of the Preferred Alternative at acceptable, minor levels. “Management measures” are defined as routine BMPs and/or regulatory environmental compliance and protection measures that are regularly implemented as part of proposed activities, as appropriate, across Colorado. Per established protocols, procedures, and requirements, the VA (and the VA’s design and construction contractors) would implement BMPs and would satisfy all applicable regulatory requirements in association with the design, construction, and operation of the Preferred Alternative.

In general, implementation of management measures, as identified in Table 5-1, would maintain effects at acceptable levels for all resource areas analyzed. These are different from “minimization measures,” which are defined as project-specific requirements that are not routinely implemented as part of development projects, but that are necessary to reduce identified environmental effects to less-than-significant levels.

Table 5-1 provides a summary of BMPs/Environmental Protection Measures included in the Proposed Action to ensure that adverse, minor effects are controlled and/or reduced. These measures are based on the analysis in the Final PEA (VA 2012) and the site-specific SEA analysis.

<table>
<thead>
<tr>
<th>Technical Resource Area</th>
<th>Best Management Practice/Environmental Protection Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>Incorporate existing topography and natural features into site design, wherever possible.</td>
</tr>
<tr>
<td></td>
<td>Incorporate elements of local vernacular architecture into facility and site design.</td>
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<tr>
<td></td>
<td>Maintain landscaped areas, buildings, roadways, and signage.</td>
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<tr>
<td></td>
<td>Design the site to accentuate existing viewsheds, including vistas of Pikes Peak.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Use appropriate dust suppression methods during on-site construction activities. Available methods include application of water, dust palliative, or soil stabilizers; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-moving activities during high wind conditions.</td>
</tr>
<tr>
<td></td>
<td>Maintain an appropriate speed to minimize dust generated by vehicles and equipment on unpaved surfaces.</td>
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<td>Cover haul trucks with tarps.</td>
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<td></td>
<td>Stabilize previously disturbed areas through revegetation or mulching if the area would be inactive for several weeks or longer.</td>
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<tr>
<td></td>
<td>Visually monitor all construction activities regularly, in particular, during extended periods of dry weather, and implement dust control measures, when appropriate.</td>
</tr>
<tr>
<td>Technical Resource Area</td>
<td>Best Management Practice/Environmental Protection Measure</td>
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</tr>
<tr>
<td>Geology and Soils</td>
<td>Design paved areas to drain to the stormwater management system.</td>
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<tr>
<td></td>
<td>Install and monitor erosion prevention measures (BMPs), such as silt fences and water breaks, detention basins, filter fences, sediment berms, interceptor ditches, straw bales, rip-rap, and/or other sediment control structures; and seed/revegetate areas that have been temporarily cleared of vegetation.</td>
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<tr>
<td></td>
<td>Retain on-site vegetation to the maximum extent possible.</td>
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<td></td>
<td>Plant and maintain soil-stabilizing vegetation on disturbed areas.</td>
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<tr>
<td></td>
<td>Use native vegetation to revegetate disturbed soils.</td>
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<tr>
<td></td>
<td>Create and maintain a tree-lined border to minimize visual impacts of topographical changes.</td>
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<tr>
<td></td>
<td>Adequately address permits from CDPS before any proposed construction activities commence and adhere to permit conditions during all on-site construction activities.</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>Avoid development within on-site wetlands/WOTUS.</td>
</tr>
<tr>
<td></td>
<td>Adequately address permit(s) from the USACE and CDPHE, and attempt to address local agencies, to minimize adverse effects on wetlands/WOTUS prior to construction.</td>
</tr>
<tr>
<td></td>
<td>Maintain a buffer of undisturbed land around the identified wetlands/WOTUS.</td>
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<tr>
<td></td>
<td>Develop a site design that prevents surface water runoff to the on-site and adjacent surface waters, and avoids interaction with on-site and adjacent surface waters.</td>
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<tr>
<td></td>
<td>Develop a site design that accounts for pre/post 100-year volume stormwater drainage at a minimum.</td>
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<tr>
<td></td>
<td>Implement pre/post-100-year volume stormwater retention at a minimum.</td>
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<tr>
<td></td>
<td>Implement stormwater management facilities and other related stormwater management infrastructure for the site.</td>
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<tr>
<td></td>
<td>Construct barriers in work areas and in material sources to prevent sediment, petroleum products, chemicals, and other liquids and solids from entering jurisdictional wetlands or WOTUS.</td>
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<tr>
<td></td>
<td>Clear ephemeral drainages and intermittent and perennial streams of all work items, debris, or other obstructions placed by, or resulting from, construction operations.</td>
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<td></td>
<td>Locate machinery servicing and refueling areas away from streambeds and washes to reduce the possibility and minimize the impacts of accidental spills or discharges.</td>
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<td></td>
<td>Inspect and maintain construction vehicles in good working order and maintain a spill kit.</td>
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<td></td>
<td>Apply turf establishment to finished slopes and ditches after completion of construction on a portion of the site.</td>
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<td></td>
<td>Explore options to increase reuse of potable water.</td>
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<tr>
<td>Technical Resource Area</td>
<td>Best Management Practice/Environmental Protection Measure</td>
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<td>-------------------------</td>
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</tr>
<tr>
<td><strong>Floodplains and Wetland</strong></td>
<td>Modify floodplains and contributing channels to enhance predictability of flooding scenarios, and reduce vulnerability of wetlands and VA assets to flood events.</td>
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<tr>
<td></td>
<td>Implement channel stabilization/restoration projects along Corral Tributary to prevent further channel erosion and sedimentation of waterways and wetlands.</td>
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<tr>
<td></td>
<td>Avoid development to the extent practicable of on-site wetlands, floodplains, and Section 404 jurisdictional waters. Maintain a buffer or undisturbed land around identified wetlands and floodplains.</td>
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<tr>
<td></td>
<td>Adequately address permits from FEMA, the USACE, El Paso County, and other regulatory agencies to minimize adverse impacts on jurisdictional wetlands and/or floodplains.</td>
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<tr>
<td></td>
<td>Implement pre/post-100-year stormwater volume retention, at a minimum.</td>
</tr>
<tr>
<td></td>
<td>Implement stormwater management facilities and related infrastructure on site.</td>
</tr>
<tr>
<td><strong>Wildlife and Habitat</strong></td>
<td>Use native species when revegetating land disturbed by construction to avoid the potential introduction of non-native or invasive species.</td>
</tr>
<tr>
<td></td>
<td>Avoid to the greatest extent practicable any ground disturbing activities within 200 feet of identified wetlands and surface waters.</td>
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<td></td>
<td>Continue to consult with the USFWS and CPW to minimize adverse effects to protected vegetation and wildlife resources prior to construction.</td>
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<td></td>
<td>Implement preventative efforts to prevent the establishment of noxious weeds.</td>
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<td></td>
<td>Prioritize control and elimination of weeds that are already established, and take prompt action to eradicate the species.</td>
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<tr>
<td></td>
<td>Integrate specific site BMPs such as erosion control measures for spoils areas, which include actions such as soil reinforcement BMPs (i.e., grass stabilization, soil reinforced geotextiles) and straw wattles around the downslope of the pile, to help prevent noxious weed establishment.</td>
</tr>
<tr>
<td></td>
<td>Focus site disturbance on previously managed or disturbed grasslands, thereby reducing the amount of vegetation and tree disturbance.</td>
</tr>
<tr>
<td>Technical Resource Area</td>
<td>Best Management Practice/Environmental Protection Measure</td>
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<tr>
<td>Cultural Resources</td>
<td>Require that the construction contractor employ a professional archaeologist prepare and implement a pre-construction brief regarding unanticipated discoveries and provide the brief to onsite construction crews.</td>
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<tr>
<td></td>
<td>Require that the construction contractor employ a professional archaeologist on an on-call basis to provide oversight to assess potential discoveries or evidence of cultural resources.</td>
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<tr>
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<td>In the event of inadvertent discovery of potential cultural resource materials or features, immediately cease site development and implement procedures for inadvertent discovery, as outlined in the Inadvertent Discovery Plan provided in Appendix A.</td>
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<td></td>
<td>Comply with the NHPA, Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act, American Indian Religious Freedom Act, 36 CFR Part 79, and EO 13007 during the proposed future development process.</td>
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<td>In the event of discoveries of ancestral remains during construction activities, notify the SHPO and recognized cultural and lineal descendants on matters of burial treatment as outlined in the Inadvertent Discovery Plan provided in Appendix A.</td>
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<tr>
<td></td>
<td>Consult with the Colorado SHPO and tribes and develop and implement appropriate management measures to ensure that adverse effects to unknown cultural resources would not occur.</td>
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<tr>
<td>Noise</td>
<td>Limit construction activity to daylight hours.</td>
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<tr>
<td></td>
<td>Use properly maintained and muffled vehicles and equipment.</td>
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<td>Observe local noise ordinances at all times.</td>
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<td></td>
<td>Locate stationary operating equipment as far away from surrounding residents as possible. Shut down heavy equipment and other noise emitters when they are not in use.</td>
</tr>
<tr>
<td>Utilities</td>
<td>Design plans will be submitted to each available utility provider to determine specific connection requirements and implement the necessary connection requirements.</td>
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<tr>
<td>Transportation and Parking</td>
<td>Coordinate with local officials and CDOT to ensure that construction and operational traffic are considered in the planning of any future transportation improvements in this vicinity.</td>
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<td>Coordinate with CDOT to identify and implement roadway improvements, as necessary, such as turn lanes and signals.</td>
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<td></td>
<td>Prevent deposit of debris and soil on local roadways during the construction period.</td>
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<td></td>
<td>Plan construction activities to limit the effects to traffic flow on local roadways; time construction activities to avoid peak travel hours.</td>
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</tbody>
</table>
6 CONCLUSIONS

This SEA analyzed the potential environmental effects of the VA’s Proposed Action to construct and operate a new National Cemetery in Colorado Springs, Colorado. As described in Section 1.1, this SEA has been “tiered” from a Final PEA prepared by VA on July 17, 2012 (VA 2012).

This SEA evaluated two alternatives: (1) Preferred Alternative—construct and operate a new National Cemetery on the 374.3-acre site; and (2) No Action Alternative—do not construct the proposed National Cemetery.

This SEA evaluated possible effects on aesthetics, air quality, geology and soils, hydrology and water quality, floodplains and wetlands, wildlife and habitat, cultural resources, noise, utilities, and transportation and parking. The VA determined that five other technical resource areas were sufficiently analyzed in the PEA and did not require further analysis in this SEA (i.e., land use, solid and hazardous waste, socioeconomics, community services, and environmental justice).

As a result of the analysis of impacts in the SEA summarized and incorporated by reference herein, it is the conclusion of the VA that, with the implementation of appropriate management and avoidance measures identified in Table 5-1 and discussed in Chapter 3, the Proposed Action would not generate significant public controversy nor have a significant adverse impact on the quality of the natural or human environment within the meaning of Section 102(2)(c) of the NEPA of 1969. Therefore, preparation of an environmental impact statement is not required.
# LIST OF PREPARERS

## Department of Veterans Affairs Staff

Mr. Glenn Elliott  
Environmental Engineer  
U.S. Department of Veterans Affairs Office of Construction & Facilities Management

## Marstel-Day, LLC (NEPA Consultant)

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Years of Experience</th>
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</thead>
<tbody>
<tr>
<td>Erika Wettergreen</td>
<td>Management Support, Document Preparation and Review</td>
<td>25</td>
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<tr>
<td>Randall Farren</td>
<td>Management Support, Subject Matter Expert, Document Preparation and Review</td>
<td>8</td>
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<tr>
<td>Elizabeth Pratt</td>
<td>Subject Matter Expert, Document Preparation</td>
<td>10</td>
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<td>Tanya Perry</td>
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<td>Mary Young</td>
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<td>12</td>
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<td>Holly Bisbee</td>
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<td>15</td>
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<tr>
<td>William Gray (Subcontractor, LRS Group)</td>
<td>Subject Matter Expert, Document Preparation</td>
<td>14</td>
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<tr>
<td>Laurie Griffith</td>
<td>Document Preparation</td>
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8 REFERENCES


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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACIP</td>
<td>Advisory Council on Historic Preservation</td>
</tr>
<tr>
<td>ADT</td>
<td>average daily traffic</td>
</tr>
<tr>
<td>AMSL</td>
<td>above mean sea level</td>
</tr>
<tr>
<td>APE</td>
<td>area of potential effect</td>
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<tr>
<td>AQCR</td>
<td>air quality control region</td>
</tr>
<tr>
<td>ASEL</td>
<td>A-weighted sound exposure level</td>
</tr>
<tr>
<td>BGEPA</td>
<td>Bald and Golden Eagle Protection Act</td>
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<tr>
<td>BMP</td>
<td>Best Management Practices</td>
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<td>C.R.S.</td>
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<td>Colorado Discharge Permit System</td>
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<td>Council on Environmental Quality</td>
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<td>Code of Federal Regulations</td>
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<td>CLOMR</td>
<td>Conditional Letter of Map Revision</td>
</tr>
<tr>
<td>CNHP</td>
<td>Colorado Natural Heritage Program</td>
</tr>
<tr>
<td>CPW</td>
<td>Colorado Parks and Wildlife</td>
</tr>
<tr>
<td>CSU</td>
<td>Colorado Springs Utilities</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>dB</td>
<td>decibel</td>
</tr>
<tr>
<td>DNL</td>
<td>day-night average sound level</td>
</tr>
<tr>
<td>E&amp;S</td>
<td>erosion and sedimentation</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>ECOS</td>
<td>Environmental Conservation Online System</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>EPAct</td>
<td>Energy Policy Act</td>
</tr>
<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
</tr>
<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>FPPA</td>
<td>Farmland Protection Policy Act</td>
</tr>
<tr>
<td>GHG</td>
<td>greenhouse gas</td>
</tr>
<tr>
<td>GPD</td>
<td>gallons per day</td>
</tr>
<tr>
<td>gsf</td>
<td>gross square feet</td>
</tr>
<tr>
<td>HVAC</td>
<td>heating, ventilation, air conditioning</td>
</tr>
<tr>
<td>IICEP</td>
<td>Interagency and Intergovernmental Coordination for Environmental Planning</td>
</tr>
<tr>
<td>ISDS</td>
<td>Individual Sewage Disposal System</td>
</tr>
<tr>
<td>LEED®</td>
<td>Leadership in Energy and Environmental Design</td>
</tr>
<tr>
<td>LOS</td>
<td>level of service</td>
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</table>
**LIST OF ACRONYMS AND ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
</tr>
<tr>
<td>MG</td>
<td>million gallons</td>
</tr>
<tr>
<td>mg/L</td>
<td>milligrams per liter</td>
</tr>
<tr>
<td>MP</td>
<td>master plan</td>
</tr>
<tr>
<td>mph</td>
<td>miles per hour</td>
</tr>
<tr>
<td>MVEA</td>
<td>Mountain View Electric Association</td>
</tr>
<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
</tr>
<tr>
<td>NCA</td>
<td>National Cemetery Administration</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<tr>
<td>NOA</td>
<td>Notice of Availability</td>
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<tr>
<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
</tr>
<tr>
<td>NRCS</td>
<td>Natural Resources Conservation Service</td>
</tr>
<tr>
<td>NRHP</td>
<td>National Register of Historic Places</td>
</tr>
<tr>
<td>PEA</td>
<td>Programmatic Environmental Assessment</td>
</tr>
<tr>
<td>PIC</td>
<td>Public Information Center</td>
</tr>
<tr>
<td>ROI</td>
<td>region of influence</td>
</tr>
<tr>
<td>SEA</td>
<td>Site-Specific Environmental Assessment</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Officer</td>
</tr>
<tr>
<td>T&amp;E</td>
<td>Threatened and Endangered</td>
</tr>
<tr>
<td>U.S.</td>
<td>United States</td>
</tr>
<tr>
<td>USACE</td>
<td>United States Army Corps of Engineers</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>
</tr>
<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
</tr>
<tr>
<td>USGBC</td>
<td>United States Green Building Council</td>
</tr>
<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
</tr>
<tr>
<td>VA</td>
<td>Department of Veterans Affairs</td>
</tr>
<tr>
<td>WOTUS</td>
<td>waters of the United States</td>
</tr>
<tr>
<td>WQCD</td>
<td>Water Quality Control Division</td>
</tr>
<tr>
<td>WWSD</td>
<td>Widefield Water and Sanitation District</td>
</tr>
</tbody>
</table>
## 10 AGENCIES AND INDIVIDUALS CONSULTED

### Native American Tribes

**Arapaho Tribe of the Wind River Reservation, Wyoming**  
Honorable Roy B. Brown  
P.O. Box 396  
Fort Washakie, WY 82514

**Arapaho Tribe of the Wind River Reservation, Wyoming**  
Yufna Soldier Wolf, THPO  
P.O. Box 67  
St. Stevens, WY 82524

**Cheyenne and Arapaho Tribes, Oklahoma**  
Honorable Eddie Hamilton, Governor  
100 Red Moon Circle  
Concho, OK 73022

**Cheyenne and Arapaho Tribes, Oklahoma**  
Lynnette Gray, THPO  
100 Red Moon Circle  
Concho, OK 73022

**Comanche Nation**  
Honorable Willie Nelson, Chairman  
HC-32, Box 1720  
584 NW Bingo Road  
Lawton, OK 73507

**Comanche Nation**  
Jimmy Arterberry, THPO  
584 NW Bingo Road  
Lawton, OK 73507

**Fort Peck Assiniboine and Sioux Tribes**  
Honorable Floyd Azure, Tribal Chairman  
501 Medicine Bear Road  
Poplar, MT 59255

**Fort Peck Assiniboine and Sioux Tribes**  
Darrell Youpee, THPO  
P.O. Box 1027  
501 Medicine Bear Road  
Poplar, MT 59255

### Northern Cheyenne Tribe of Northern Cheyenne Indian Reservation

**Northern Cheyenne Tribe of Northern Cheyenne Indian Reservation**  
Honorable Lawrence Killsback, President  
P.O. Box 128  
Lame Deer, MT 59043

**Northern Cheyenne Tribe of Northern Cheyenne Indian Reservation**  
Teanna Limpy, THPO Director  
P.O. Box 128  
Lame Deer, MT 59043

### Federal Agencies

**U.S Army Corps of Engineers, Southern Colorado Regulatory Office**  
Christopher M. Grosso, Regulatory Project Manager  
200 South Santa Fe Avenue, Suite 301  
Pueblo, CO 81003-4270

**U.S. Forest Service Rocky Mountain Region**  
David Loomis, NEPA Coach  
740 Simms St  
Golden, CO 80401

**U.S. Forest Service Pikes Peak Ranger District**  
Jeffrey Hovermale – Lands/Minerals/Special Uses  
601 South Weber St  
Colorado Springs, CO 80903

**U.S. Department of Agriculture**  
El Paso County Farm Service Agency  
Brent Fillmore, County Executive Director  
5610 Industrial Place  
Colorado Springs, CO 80916

**U.S. Forest Service Rocky Mountain Regional Office**  
Dan Jiron, Regional Forester  
740 Simms Street  
Golden, CO 80401-4720
AGENCIES AND INDIVIDUALS CONSULTED

Natural Resources Conservation Service  
Colorado Area 3 - La Junta Area Office  
Sherman Liechty, Area Conservationist  
318 Lacey Avenue  
La Junta, CO 81050-2039

Bureau of Land Management, Colorado  
Front Range District Office  
Tom Heinlein, District Manager  
3028 East Main Street  
Canon City, CO 81212

U.S. Fish and Wildlife Service, Mountain  
Prairie Region, Ecological Service,  
Colorado Field Office  
Noreen Walsh, Regional Director  
134 Union Boulevard  
Lakewood, Colorado 80228

U.S. Environmental Protection Agency  
Shaun McGrath, Region 8 Administrator  
1595 Wynkoop Street  
Denver, CO 80202-1129

U.S. Geological Survey  
Colorado Water Science Center  
Bill Banks, Southeast Colorado Office Chief  
201 East 9th Street  
Pueblo, CO 81003

Bureau of Indian Affairs Southwest  
Region  
William T. Walker, Regional Director  
1001 Indian School Road, NW  
Albuquerque, NM 87125-6567

National Park Service  
Intermountain Region  
Sue Masica, Regional Director  
12795 Alameda Parkway  
Denver, CO 80225

State Agencies  
Colorado State Forest Service  
Woodland Park District  
Larry Long, Woodland Park District Forester  
113 South Boundary Street  
Woodland Park, CO 80863

Colorado Department of Transportation  
Karen Rowe, Region 2 Director  
905 Erie Ave  
Pueblo, CO 81002

Colorado Office of Archaeology and  
Historic Preservation  
Mr. Steve Turner, State Historic  
Preservation Officer  
1200 Broadway  
Denver, CO 80203

Colorado Farm Service Agency  
Leland Swenson, State Executive Director  
Denver Federal Center  
Building 56, Room 2760  
Denver, CO 80225-0426

Colorado Commission of Indian Affairs  
Office of the Lt. Governor  
Ernest House, Executive Director  
130 State Capitol  
Denver, CO 80203-1792

Colorado Department of Agriculture  
Division of Conservation Services  
Eric Lane, Division Director  
305 Interlocken Parkway  
Broomfield, CO 80021

Colorado Department of Military and  
Veterans Affairs (CDMVA)  
Major General H. Michael Edwards,  
Adjutant General  
6848 South Revere Parkway  
Centennial, CO 80112

Colorado Department of Natural  
Resources  
Bob Randall, Interim Executive Director  
1313 Sherman Street, Room 718  
Denver, CO 80203
AGENCIES AND INDIVIDUALS CONSULTED

Colorado State Land Board
Bill Ryan, Director
1127 Sherman Street, Suite 300
Denver, CO 80203

Colorado Water Conservation Board
James Eklund, Director
1313 Sherman Street, Room 718
Denver, CO 80203

County Agencies

El Paso County Administrator
Henry Yankowski, County Administrator
200 South Cascade Avenue, Suite 100
Colorado Springs, CO 80903-2202

El Paso County Board of Commissioners
Dennis Hisey, District 4 Commissioner
200 South Cascade Avenue, Suite 100
Colorado Springs, CO 80903-2202

El Paso County Environmental Division
Kathy Andrew, Division Manager
3255 Akers Drive
Colorado Springs, CO 80922

Local Agencies

City of Colorado Springs
John Suthers, Mayor
30 S. Nevada Avenue, Suite 601
Colorado Springs, CO 80903

City of Colorado Springs
Helen Collins, Councilmember District 4
107 N. Nevada Avenue
Colorado Springs, CO 80903

City of Colorado Springs
Land Use Review Division
Peter Wysocki, Planning Director
30 S. Nevada Avenue, Suite 105
Colorado Springs, CO 80903

Individual Agency Correspondence

Pikes Peak National Veterans Cemetery Committee
COL Vic Fernandez, USA (Ret)
P.O. Box 15319
Colorado Springs CO 80935

Media

Gazette
30 E. Pikes Peak Avenue, Suite 100,
Colorado Springs, CO 80903

Pueblo Chieftain
825 W. Sixth Street
Pueblo, CO 81003
# 11 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>State Environmental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>
| Clean Water Act (CWA) Section 401 Permit ([https://www.colorado.gov/pacific/cdphe/401-certification](https://www.colorado.gov/pacific/cdphe/401-certification)) | Colorado Department of Public Health & Environment | Required for projects where activities will disturb jurisdictional WOTUS | • Complete CWA Section 401 Permit Application  
• Submit Site Plan  
• Submit description of BMPs | Approximately 2 days to prepare application. Agency review takes approximately 60 days. |          |
<p>| Water Quality Construction General Permits (<a href="https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits">https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits</a>) | Colorado Department of Public Health &amp; Environment | Required for projects where activities would disturb one acre or more of land. | Complete Stormwater Discharge Associated with Construction Activities Application | Approximately 2 days to prepare application. |          |</p>
<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>Clean Water Act (CWA) Section 401 Permit (<a href="http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx">http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx</a>)</td>
<td>U.S. Army Corps of Engineers(USACE), Omaha District</td>
<td>Required for projects where activities will disturb jurisdictional “Waters of the United States”</td>
<td>Complete Individual Permit if adverse impacts are anticipated. Complete General Permit if minimal impacts are anticipated.</td>
<td>Approximately 2 days to prepare application. Agency review takes approximately 60 days.</td>
<td></td>
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<tr>
<td>FEMA MT-2 Application and Forms (<a href="https://www.fema.gov/mt-2-application-forms-and-instructions">https://www.fema.gov/mt-2-application-forms-and-instructions</a>)</td>
<td>Federal Emergency Management Agency</td>
<td>These forms should be used by community officials or individuals via community officials to ask that FEMA revise the effective National Flood Insurance Program (NFIP) map (Flood Hazard Boundary Map, Flood Insurance Rate Map, Flood Boundary and Floodway Map, or Digital Flood Insurance Rate Map) and Flood Insurance Study report for a community</td>
<td>Complete application forms, project narrative, hydrologic and hydraulic computations, certified topographic map with floodplain delineations, annotated FEMA FIRM to reflect changes resulting from the project, items necessary to fulfill FEMA NFIP regulatory requirements, and processing fee.</td>
<td></td>
<td></td>
</tr>
</tbody>
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