Department of Veterans Affairs

425 I Street, NW
Washington, DC 20001

FINAL
SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT
for Expansion and Improvements at the
Willamette National Cemetery
Portland, Oregon

June 2018
**ABSTRACT**

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

**Title of Proposed Action:** Willamette National Cemetery

**Affected Jurisdiction:** Portland, Oregon

**Document Designation:** Final Site-Specific Environmental Assessment

**Prepared by:** Marstel-Day, LLC

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**Abstract:**

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’s (NCA) Proposed Action for the expansion and improvements of Willamette National Cemetery. The Proposed Action would cover approximately 16.7 acres of a 38-acre property acquired by the VA in August 2011. In June 2010, an environmental assessment (EA) for the acquisition of this property evaluated the potential for environmental effects of the site acquisition for cemetery development. Because site-specific designs were not available at the time, the 2010 EA did not evaluate potential impacts from construction or operation of the expanded cemetery development in detail. This SEA is “tiered” from the 2010 EA to more precisely analyze, based on site-specific designs, the 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 NCA to provide eligible veterans and their families with an expansion of Willamette National Cemetery of sufficient size and capacity to serve the projected Veteran burial needs in the Portland metropolitan area for an additional 10 years. The Proposed Action is needed to meet the NCA’s goal of providing eligible veterans with reasonable access to VA burial options.

The Proposed Action evaluated in this SEA would include the development of approximately 23,150 gravesites in the form of preplaced crypts, columbarium niches, and in-ground cremains, as well as memorial walls, roadways, a stream crossing, utility systems, site furnishings, signage, landscaping, and irrigation. The Proposed Action would include an Early Turnover (ETO) phase consisting of approximately 1,200 preplaced crypts with associated site development requirements. Additional facility improvements would include renovation of the existing administration building and replacement of the existing maintenance employee building complex.

This SEA evaluates two alternatives in depth: the Preferred Alternative and the No Action Alternative. The Preferred Alternative is to implement the VA’s preferred design and expansion of the Willamette National Cemetery. Under the No Action Alternative, the expansion site and improvements would not be developed. This alternative reflects the status quo and serves as a baseline against which the effects of the action alternatives can be evaluated.
EXECUTIVE SUMMARY

Introductions
The U.S. Department of Veterans Affairs (VA) National Cemetery Administration (NCA) honors veterans and their families with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice to the nation. The mission of the VA Office of Construction and Facilities Management (CFM) is to advance the VA’s mission in support of our Nation’s Veterans by planning, designing, constructing, and acquiring major facilities, and by setting design and construction standards.

This site-specific environmental assessment (SEA) analyzes and evaluates the potential effects of actions associated with expansion and site improvements at Willamette National Cemetery. This SEA has been 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), Environmental Effects of the Department of Veterans Affairs Actions (38 CFR Part 26), and the VA’s NEPA Interim Guidance for Projects (VA, 2010a).

This SEA is “tiered” from a previously prepared environmental assessment (EA), finalized in June 2010, which identified, analyzed, and documented potential impacts of acquiring approximately 38 acres adjacent to Willamette National Cemetery (VA, 2010b). The EA analyzed the potential environmental effects of acquiring the cemetery site for cemetery expansion but could not evaluate potential impacts from construction and/or operation in detail because site-specific designs were not available. The VA developed this subsequent, tiered SEA to more precisely analyze and evaluate the potential effects of the expansion of the original cemetery in the newly acquired area and additional improvements to existing infrastructure and facilities.

Purpose and Need
The purpose of the Proposed Action is to enable VA to provide eligible veterans and their families in the Portland metropolitan area with an expansion of Willamette National Cemetery of sufficient size and capacity to serve the projected Veteran burial needs in this region. The project is designed to serve anticipated regional needs for an additional 10 years.

The Proposed Action is needed to meet the NCA goal of providing eligible veterans with reasonable access to VA burial options. The National Cemetery Administration estimates that Willamette National Cemetery will have exhausted space for in-ground burials by 2019 and columbarium niche inurnments by 2021. Without acquiring land for future expansion, there would not be a readily accessible public veterans’ national cemetery that can accommodate the future burial needs of the veteran population residing in the Portland metropolitan and regional area.

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 Preferred Alternative and the No Action Alternative, as required by NEPA.
**Preferred Alternative.** Under the Preferred Alternative, a 10-year gravesite expansion would be implemented within the original cemetery and on approximately 16.7 acres of the 38-acre adjacent parcel, along with necessary repairs, infrastructure upgrades, construction of new facilities, and other cemetery improvements. The Preferred Alternative would advance the VA’s mission.

**No Action Alternative.** Under the No Action Alternative, the Proposed Action would not be implemented. Veterans and their families residing in the Portland metropolitan area would be underserved; and in many cases, this would 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 be unequal, and the VA would not be in compliance with the requirements of the Servicemembers Civil Relief Act.

The No Action Alternative would not enable VA to continue providing adequate, long-term National Cemetery facilities in the Portland metropolitan area. The No Action Alternative reflects the status quo and serves as a benchmark against which the effects of the Proposed Action can be evaluated. Though it would not meet the purpose of, and need for, action, the No Action Alternative 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 11 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. A review of the 2010 EA and analysis of potential consequences determined that four technical resource areas were sufficiently analyzed in the EA and did not require further analysis in this SEA, including solid and hazardous waste, socioeconomics, community services, and environmental justice. Table ES-1 summarizes anticipated environmental effects of the Preferred Alternative and No Action Alternative.

**Table ES-1. Summary of Impact Analysis**

<table>
<thead>
<tr>
<th>Resource Area</th>
<th>Preferred Alternative</th>
<th>No Action Alternative</th>
</tr>
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<tbody>
<tr>
<td>Aesthetics</td>
<td>Potential minor, short-term, adverse impacts during site preparation due to the presence of equipment and removal of vegetation. Minor, long-term beneficial impacts due to development of an expansion site into a parklike National Cemetery. No significant impacts.</td>
<td>Negligible, long-term, adverse impacts because the aesthetic benefits of developing the site into a National Cemetery would not occur. No significant impacts.</td>
</tr>
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### Executive Summary

#### Site-Specific Environmental Assessment

**WILLAMETTE NATIONAL CEMETERY, PORTLAND, OREGON**

**JUNE 2018**

#### Resource Area | Preferred Alternative | No Action Alternative
--- | --- | ---
**Air Quality** | Minor, short-term, adverse impacts from potential fugitive dust, and vehicle and equipment emissions. Minor, long-term, adverse effects from vehicles visiting the site. Emissions would be well below *de minimis* thresholds. No significant impacts. | Negligible, long-term, adverse impacts because veterans and their families would be required to travel greater distances to other National Cemeteries, resulting in increased air emissions. No significant impacts. |

**Cultural Resources** | No adverse effects to archaeological resources. An adverse effect due to the demolition of Building 2001 and Building 3003. The adverse effect would be mitigated in the form of state-level documentation of the buildings, as approved by the Oregon State Historic Preservation Office. No significant impacts. | Negligible, long-term, adverse effects due to lack of needed upgrades to National Register-eligible structures and potential deterioration. No significant impacts. |

**Geology, Topography, and Soils** | Minor, short-term, adverse impacts associated with potential soil disturbance and sedimentation of stormwater. Minor, long-term, adverse impacts on topography resulting from site grading. No significant impacts. | None. |

**Hydrology and Water Quality** | Minor, short-term, adverse impacts on surface waters due to potential turbidity and sedimentation from vegetation removal and stormwater runoff. No significant impacts. | None. |

**Floodplains and Wetlands** | Minor, short-term, adverse impacts on wetlands due to potential erosion, sedimentation, and stormwater runoff from areas of exposed soil. Minor, long-term, adverse impacts due to construction of bridge/culvert across wetlands. Planned mitigation, as approved by the Oregon Department of State Lands, would offset these impacts. No impacts on floodplains. No significant impacts on wetlands. | None. |

**Wildlife and Habitat** | Negligible-to-minor, long-term adverse impacts due to minor habitat conversion and potential sedimentation/turbidity associated with runoff during construction. No significant impacts. | None. |
<table>
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<tr>
<th>Resource Area</th>
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<tbody>
<tr>
<td>Noise</td>
<td>Potential minor, short-term and negligible, long-term, adverse impacts due to construction, vehicles, and operational noise. No significant impacts.</td>
<td>None.</td>
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<tr>
<td>Land Use</td>
<td>No adverse impact. Negligible impacts due to conversion of farm pasture to a parklike National Cemetery.</td>
<td>None.</td>
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<tr>
<td>Socioeconomics</td>
<td>No adverse impact. Possible negligible, short-term, beneficial effects on employment during construction.</td>
<td>None.</td>
</tr>
<tr>
<td>Community Services</td>
<td>No impacts. Increases in personnel from the expanded cemetery would be negligible compared to existing populations served.</td>
<td>None.</td>
</tr>
<tr>
<td>Solid and Hazardous Waste</td>
<td>No impacts. Contractors would appropriately handle, store, use, transport, and dispose of all materials used on site during construction. Materials used to maintain the cemetery would be done so in accordance with the plans and procedures used for the existing cemetery.</td>
<td>None.</td>
</tr>
<tr>
<td>Transportation and Parking</td>
<td>Negligible, short-term and long-term, adverse impacts on transportation due to construction of new entrance and potential for minimal increased traffic along SE 132nd Avenue. Impacts would be more concentrated during construction phases. No impacts on parking. No significant impacts on transportation.</td>
<td>Negligible, long-term, beneficial impact as rate of interments is reduced and eventually ends. No significant impacts.</td>
</tr>
<tr>
<td>Utilities</td>
<td>Potential negligible impacts from extending utility services to the expansion site. No significant impacts.</td>
<td>None.</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>Cumulative Effects</td>
<td>None identified.</td>
<td>None identified.</td>
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<tr>
<td>Potential for Generating Substantial Controversy</td>
<td>None identified.</td>
<td>None identified.</td>
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# Executive Summary

The purpose of this assessment is to evaluate the environmental impacts of a proposed action. The assessment is intended to provide a clear understanding of the project's objectives and the potential environmental consequences of the proposed actions and alternatives.

## Purpose and Need

The project is necessary to achieve the objectives outlined in the purpose and need section. The proposed action is designed to address the identified need in an environmentally sound manner.

## Proposed Action and Alternatives Considered

The proposed action is described in detail, along with the alternatives that were considered. Each alternative is analyzed to determine its environmental consequences.

## Affected Environment and Environmental Consequences

The environmental impacts of the proposed action and alternatives are described in detail, including their effects on cultural resources, aesthetics, air quality, and other environmental factors.

## Purpose and Need

The purpose of the project and the need it addresses are outlined in this section. This information is critical for understanding the context in which the proposed action is being considered.

## Proposed Action and Alternatives Considered

This section describes the proposed action in detail and lists the alternatives that were evaluated. Each alternative is discussed to determine its suitability and potential environmental impacts.

## Affected Environment and Environmental Consequences

The environmental consequences of the proposed action and alternatives are analyzed in this section. The impacts on various environmental factors, such as cultural resources and air quality, are described and evaluated.

## Scope of the Analysis

The scope of the analysis is defined in this section, and it includes the resources evaluated and carried forward. This information is essential for understanding the limits of the study.

## Aesthetics

The aesthetic impacts of the proposed action and alternatives are assessed in this section. The effects on the visual characteristics of the environment are described and evaluated.

## Air Quality

The air quality impacts of the proposed action and alternatives are described in this section. The effects on air quality are analyzed to determine their potential consequences.

## Cultural Resources

The cultural resource impacts of the proposed action and alternatives are evaluated in this section. The effects on cultural resources are described and analyzed.

## Geology, Topography, and Soils

The geology, topography, and soils impacts of the proposed action and alternatives are assessed in this section. The effects on these environmental factors are described and evaluated.

## Minimization/Management Measures

The measures taken to minimize environmental impacts are described in this section. The strategies used to manage and mitigate the effects of the proposed action and alternatives are outlined.
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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 to expand and improve Willamette National Cemetery. Improvements and expansion would occur on the original National Cemetery site and on approximately 16.7 acres of the adjoining 38-acre parcel (herein referred to as the “expansion site”) near the intersection of SE Lucille Street and SE Callahan Road in Clackamas County, Oregon.

This SEA builds upon the Environmental Assessment for Planned Expansion of Willamette National Cemetery, Portland, Oregon, completed in June 2010 as part of the site acquisition process (VA, 2010b). The 2010 EA analyzed the potential environmental consequences associated with acquiring property adjacent to the existing National Cemetery for expanding the cemetery. The VA obtained this property in 2011. Because site-specific designs were not available at that time, the VA has developed this SEA to analyze the potential impacts associated with site expansion, construction, and site upgrades.

In the newly expanded region of the cemetery, the Proposed Action includes the development of approximately 23,150 gravesites in the form of preplaced crypts, columbarium niches, and inground cremains. In addition, there would be a future burial section, 900 memorial wall markers, a roadway, a stream crossing, utility systems, site furnishings, signage, landscaping, and irrigation.

In the original cemetery, the Proposed Action includes an Early Turnover (ETO) phase consisting of approximately 1,200 preplaced crypts. In addition, Building 2001 would be demolished and, at the same location, Building 3005 would be constructed. Building 3005 would include offices, locker and restrooms, a drying room, and a lunch room in the main level. Building 3003 would also be demolished; the functions in this facility would be relocated to the proposed Building 3005, which is adjacent to the site of Building 3003. New Building 3006 (Covered Equipment Storage) will be constructed in the former location of Building 3003.

The two alternatives analyzed in this SEA are

- the VA’s Preferred Alternative to expand and improve Willamette National Cemetery at the original cemetery site and within the expansion site, providing at least 10 years of expanded burial capacity; and

- the No Action Alternative to not expand and improve Willamette National Cemetery, continuing burial operations until current cemetery capacity is reached, and not undertaking actions to improve existing facilities and infrastructure on the site.

1.1 Purpose and Need

The purpose of the Proposed Action is to continue to enable the VA to provide eligible veterans and their families in the Portland metropolitan area with continued availability of a National Cemetery of sufficient size and capacity to serve the projected needs in this region. The project is designed to serve anticipated regional needs for an additional 10 years.

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

It is the policy of the NCA to provide a burial facility within 75 miles of a significant veteran population. The nearest veteran cemeteries are Tahoma National Cemetery near Seattle, Washington (approximately 170 miles north of Portland); Roseburg National Cemetery in Roseburg, Oregon (approximately 180 miles south of Portland); and Eagle Point National Cemetery in Eagle Point, Oregon (approximately 280 miles south of Portland). The NCA estimates that Willamette National Cemetery will have exhausted space for in-ground burials by 2019 and columbarium niche inurnments by 2021. Without acquiring land for future expansion, there would not be a readily accessible public veterans’ national cemetery that can accommodate the future burial needs of the veteran population residing in the Portland metropolitan and regional area.

1.2 Project Background and Existing Site

Willamette National Cemetery is in the city of Portland in Multnomah and Clackamas Counties, Oregon, approximately 10 miles south of downtown Portland (see Figure 1-1). The existing cemetery is situated on 269 acres of land, characterized by rolling fields interspersed with woodlands and wooded ravines. The topography of the site facilitates views of the surrounding landscape, including unobstructed views of Mount Hood.

Willamette National Cemetery was officially dedicated in 1950 on a little more than 102 acres of land donated to the VA by the State of Oregon to provide burial services for eligible veterans in northwestern Oregon and southwestern Washington (herein referred to as the Portland metropolitan area). The cemetery continued to expand in subsequent years, adding approximately 99 acres in 1952, and 68 acres in 1997.

By 2012, the cemetery was the seventh busiest among the 131 National Cemeteries operated by the NCA. In anticipation of reaching operational capacity in 2019, in 2009 the VA began investigating expansion options and identified three parcels southeast of the cemetery totaling approximately 38 acres for possible acquisition. In June 2010, the VA finalized the Environmental Assessment for Planned Expansion of the Willamette National Cemetery, Portland, Oregon, which evaluated the potential beneficial and adverse effects of acquiring this property. The subsequent acquisition of the property documented the VA’s intent to expand operations at the location. The current cemetery and the expansion site are shown in Figure 1-2.

1.2.1 Conservation Areas

Concurrent with the VA’s purchase of the expansion site, the City of Portland coordinated with the Trust for Public Land to place 16.7 acres of the site under perpetual conservation easements (see Figure 1-3). The easement areas are characterized by forested lands, riparian areas, and lengths of the headwaters of Wahoo and Deardorff Creeks, which are associated with downstream habitat of threatened salmonid species. The easement was conveyed to protect the conservation value of these areas and prevent any uses that could impair such values (City of Portland, 2011).
Figure 1-1. Site Location
Figure 1-2. Willamette National Cemetery Original Site and Expansion Site
Figure 1-3. Conservation Easements at the Expansion Site
The City of Portland is the steward of these conservation easements and retains the right to monitor and manage the area (e.g., study wildlife, remove invasive species) and enforce the terms of the easement to the VA. The easement terms prohibit several activities, including chemical pesticide application, disturbance of vegetation and forest resources, placement of fill or alteration of topography, digging or excavation, and construction of permanent structures or roads (City of Portland, 2011).

The easements stipulate rights-of-way for the construction, maintenance, and improvement of access roads to facilitate conveyance of pedestrians and vehicles across the property. Based on current site designs, the access road right-of-way in the southern easement is 24 feet wide and intended for vehicular traffic, maintenance vehicles, and pedestrian traffic (VA, 2017; City of Portland, 2011). The conservation easement terms allow for the construction of necessary bridges or crossings to span watercourses within the easement areas (City of Portland, 2011).

1.3 Decision Making

As a federal agency, the VA is required to incorporate a range of physical, environmental, cultural, and socioeconomic considerations into its decision-making processes for proposed actions. This is done in accordance with the regulations and associated guidance identified at the beginning of Chapter 1. This SEA serves to

- inform the public of the potential environmental impacts of the Proposed Action and considered alternatives and methods to these effects;
- provide for input and consultation among federal, state, and local agencies and Native American tribal entities for integration into the VA’s planning and evaluation;
- document adherence to the NEPA process; and
- support informed decision making by the VA.

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

The decision to be made is whether, having considered 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 best management practices (BMPs) identified in the 2010 EA and additional BMPs identified herein (summarized in Chapter 5) and incorporated into the Proposed Action, would ensure that no significant direct, indirect, and cumulative effects would occur.
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, including those alternatives that were eliminated from further analysis in this SEA. NEPA and VA regulations for implementing NEPA require all reasonable alternatives to be rigorously explored and objectively evaluated.

2.1 Proposed Action

Under the Proposed Action, Willamette National Cemetery would be expanded and improved within the original cemetery and on approximately 16.7 acres of a 38-acre parcel acquired in 2011 for the purposes of cemetery expansion. The Proposed Action would entail a 10-year gravesite expansion on the new property. The project would also include gravesite expansion within the original cemetery, facility renovation, facility replacement, infrastructure upgrades, and various other new elements and features.

Site-specific cemetery elements associated with the Proposed Action would include the activities on the expansion site (see Figure 2-1) and within the original cemetery.

Cemetery Expansion Site

- **Casketed remains area**: Approximately 6,650 preplaced crypts for full casket gravesites would be developed on approximately 3.23 acres (13,071 square meters) of the 38-acre expansion site. Approximately 65 of these gravesites would accommodate oversized crypts.

- **Cremated remains areas**: Approximately 3,500 traditional 3-foot-by-3-foot in-ground cremains, approximately 13,000 columbarium niches, and an ossuary for cremated remains would be constructed on approximately 2.50 acres (10,117 square meters) of the expansion site.

- **Memorial walls**: Three memorial walls with approximately 300 spaces per wall for approximately 900 wall markers would be constructed.

- **Roadways and parking**: A new roadway and parking would be constructed to provide access to, and service, the cemetery expansion. Internal and external access for visitors and cemetery staff to the expansion site would be developed, utilizing the existing right-of-way easement through the conservation area to the maximum extent possible. A bridge or culvert may be constructed, providing a crossing spanning wetlands and the stream within the conservation area. External access would be constructed at the intersection of SE 132nd and SE Lucille Streets and would include landscape architectural features symbolic of entrance into a national shrine.

- **Landscaping and fencing**: Turf would be planted in the expansion site from seed, and renovation and repair of existing turf would be planted from sod. Geographically compatible plants, shrubs, and trees would be planted in keeping with the existing cemetery landscaping. Ornamental fencing would be constructed along property lines of the expansion site abutting non-cemetery properties to match existing cemetery fencing along Mount Scott Boulevard. Landscape buffers, 15 to 25 feet wide, would be planted along property lines abutting non-cemetery properties.
Figure 2-1. Proposed Cemetery Elements on Expansion Site
DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

- **Irrigation and potable water needs:** Irrigation and potable water would be developed for the full build-out of the expansion site.

- **Utilities:** Electrical power, sanitary sewer, potable water, storm sewer, and natural gas utilities would be acquired for the full build-out needs of the expansion site.

### Original Cemetery Area

- **Early turnover (ETO):** Approximately 1,200 preplaced crypts would be developed by converting traditional 4-foot-by-8-foot gravesites in sections DD1 and DD2 of the original cemetery. This would include approximately 1.11 acres (4,492 square meters) and would occur within two years of the initiation of the design and construction of the expansion and improvement project to meet immediate interment needs (see Figure 2-2).

- **Facility upgrades:** In the original portion of the cemetery, Building 2001 would be demolished and, at the same location, Building 3005 would be constructed. Building 3005 would include offices, locker and restrooms, a drying room, and a lunch room in the main level. Building 3003 would also be demolished; the functions in this facility would be relocated to the proposed Building 3005, which would be adjacent to the site of Building 3003. New Building 3006 (Covered Equipment Storage) will be constructed in the former location of Building 3003. Building demolition would total 4,230 square feet (393 square meters); building construction would total 6,900 square feet (641 square meters) (see Figure 2-3).

- **Roadways and parking:** New pavement areas within the original cemetery property would include parking areas and a maintenance service yard. There would be a total of 0.53 acres of paved areas; of this amount, 0.33 acres is not currently paved. The VA would also develop a roadway repair plan for all existing roads within the original cemetery to bring the roadways into compliance with national shrine standards.

Several other improvements would enhance the aesthetics and environmental sustainability of the original cemetery and the expansion site. These other site-specific elements include the following:

- **Surface drainage improvement:** Insufficient surface drainage affects several areas on the original Willamette National Cemetery. The Proposed Action would include an assessment of these problem areas and the development of a drainage improvement plan for the site. Drainage improvement measures would be designed in accordance with VA Program Guide PG-18-3, Topic 4, “Foundation Drainage.”

- **Spoils storage:** Construction and expansion of a National Cemetery require ample storage for spoils on site. The Proposed Action would stabilize the existing spoils storage area through excavation, compaction, and stabilization measures. Development of a new spoils management plan and a new spoils storage area would accommodate cemetery spoils for at least 10 years.
Figure 2-2. Proposed Early Turnover Phase on Willamette National Cemetery.
Figure 2-3. Proposed Facility Upgrades on Willamette National Cemetery
Habitat and wetlands preservation and management: The Proposed Action would avoid, to the extent practicable, any sensitive habitat areas and on-site jurisdictional wetlands. Existing conservation easements on the expansion site would preclude disturbance and development within most wetland areas and sensitive habitats. However, the development of a stream crossing to facilitate access to the expansion site may affect jurisdictional wetlands. The VA would likely develop mitigation measures to ensure compliance with applicable federal and state regulations. These mitigation measures would minimize impacts on wetlands.

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 is 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

Working with an architecture-engineering consultant, the NCA considered options within the original cemetery and the expansion site for the configuration of cemetery elements, identifying a concept that efficiently developed the available area, complemented the parklike aesthetics of the National Cemetery, and minimized potential adverse impacts on the environment. The following criteria were evaluated during the design phase:

- Development should be avoided within the City of Portland’s conservation easements.
- Development should occur primarily on those areas with slopes less than 15 percent.
- Development should be avoided in stream or wetland areas to the extent possible.

The VA used the minimum requirements set forth in the NCA Facilities Design Guide (NCA, 2010) along with the criteria discussed above to develop the alternatives. The alternatives evaluated in this EA are the Preferred Alternative and the No Action Alternative. The No Action Alternative serves as the baseline for identifying and analyzing the expected effects of the Preferred Alternative.

2.2.1.1 Preferred Alternative

The VA identified one alternative that best met all the VA’s screening criteria, as well as the purpose of, and need for, the Proposed Action. The VA’s Preferred Alternative is to implement the Proposed Action, including improvements to the original Willamette National Cemetery and expansion on approximately 16.7 acres of the expansion site.

2.2.1.2 No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and Willamette National Cemetery would not be expanded or improved. Interments would continue until the capacity of the current cemetery is reached, and site maintenance activities would continue thereafter.
Under the No Action Alternative, veterans and their families residing in the Portland metropolitan area would be underserved 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 Oregon or Washington, or to use a private cemetery for burials. The distribution of National Cemeteries in the region would 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. Veterans and their families that must resort to private burials would be deprived of the honor and privilege bestowed upon them by a grateful nation for their service to their country.

2.2.2 Alternatives Identified but Not Evaluated in Detail

As previously discussed, this SEA builds upon the 2010 Environmental Assessment for Planned Expansion of the Willamette National Cemetery, Portland, Oregon. The 2010 EA analyzed the potential environmental consequences associated with acquiring property adjacent to the existing National Cemetery for the purposes of expanding the cemetery. The expanded property was evaluated and deemed to be the only adjacent property that was reasonable and appropriate. Other adjacent properties were obligated for other purposes or inconsistent with NCA policies for cemetery expansion. Sites not adjacent to the cemetery were not evaluated due to the logistical difficulties in operating a satellite cemetery removed from existing infrastructure and services that are required for normal cemetery operations.

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 design process, the VA incorporated options that best met the VA’s needs. The current design took several factors into consideration, including the avoidance of sensitive environmental resources such as natural habitat and the conservation easement. Specifically, development within wetland areas, streams, forested habitat, and the conservation easement was avoided to the extent possible (see Figure 2-1). In addition, the current design makes use of existing features. This includes an existing gravel path and culverts on the expansion site. The layout for the roadway is proposed on this gravel path to the extent possible, because this area has been previously disturbed. In addition, the roadway crossing is proposed in an area with existing culverts to minimize wetland impacts. Consequently, the currently proposed design avoids these resources to the greatest extent practicable.
3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Scope of the Analysis

This section describes the baseline physical, environmental, cultural, and socioeconomic conditions at Willamette National Cemetery, 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 2010 EA process and by incorporating BMPs identified in the 2010 EA into the site-specific Preferred Alternative, the VA determined that socioeconomics, community services, solid and hazardous materials, environmental justice, and land use were sufficiently analyzed in the 2010 EA and do not require detailed analysis in this SEA. The following discussion summarizes relevant changes in the existing conditions since the 2010 EA, the results of the 2010 EA (which is incorporated by reference in this SEA), and the basis for not evaluating these resources in detail in this SEA.

Socioeconomics

In 2008, the population of the city of Portland was estimated at 575,930, and the Portland metropolitan area at 2,191,785 (VA, 2010b). In 2015, the city of Portland and the Portland metropolitan area were 612,206 and 2,389,228, respectively (U.S. Census Bureau, 2015; Beebe, 2016). This is approximately a 6 percent and 9 percent increase for the city of Portland and Portland metropolitan area, which are higher than the national average of 5 percent over the same period (S&P, 2017).

The 2010 EA concluded that expansion of the cemetery would create short-term, construction-related jobs. Maintenance activities associated with a larger cemetery may require additional employees. However, this number would be minimal and would not be expected to have an impact on the economic activity in the area. The VA determined that no additional analyses were necessary to determine that the Proposed Action would have no significant impacts on socioeconomics. No mitigation or management measures would be necessary.

Community Services

Community services refer to services provided by surrounding communities such as police, fire, and medical services. The 2010 EA concluded that the proposed cemetery expansion would not affect fire, police, and medical services because the increased number of personnel (i.e., visitors at the cemetery, maintenance workers) would be negligible compared to the overall existing population served. The VA determined that no additional analyses were necessary to determine that the Proposed Action would have no significant impacts on community services. No mitigation or management measures would be necessary.

Solid and Hazardous Materials

Site visits, records searches, and research conducted for the 2010 EA did not find any solid waste dumping or evidence of known or suspected environmental contamination within the expansion site. During construction, contractors would be responsible for the appropriate handling, storage, use, transport, and disposal of all materials used on site. Per NCA policy, only lawn chemicals (e.g., pesticides, herbicides, fertilizers) that are approved by the U.S. Environmental Protection
Agency (USEPA), and applied in accordance with manufacturer label application instructions, would be used to maintain the cemetery, once constructed. Lawn chemicals and petroleum products would be stored at existing maintenance buildings on the original portion of the cemetery, and there would be no change in waste management and disposal practices. No chemical herbicides, pesticides, or fertilizers would be used with the conservation easement areas, per the deed of conservation easement (City of Portland, 2011). The VA concluded that no additional analyses were necessary to determine that the Proposed Action would have no significant impacts on, or from, solid or hazardous materials. No mitigation or management measures would be necessary beyond those that are currently practiced for Willamette National Cemetery.

**Environmental Justice**

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that federal projects consider whether a project would have a disproportionately high and adverse effect on minority or low-income populations. Recent race and income data were evaluated to determine if minority or low-income populations are present. The project site is within Census Tract 222.08, where Asian residents are the only minority group whose populations are greater when compared to state and national averages (14.4 percent in Census Tract 222.08, compared with 4.4 percent at the county, 4.4 percent at the state, and 5.6 at the national levels) (U.S. Census Bureau, 2014). However, poverty rates in Census Tract 222.08 are well below state and national averages. Household and per capita income both outpace state and national averages as well (U.S. Census Bureau, 2014).

The 2010 EA concluded that the proposed cemetery expansion would have no adverse effects on the local population, regardless of race, color, national origin, or income. The VA concluded that no additional analyses were necessary to determine that the Proposed Action would have no disproportionately high and adverse effects on minor or low-income populations. No mitigation or management measures would be necessary beyond those that are currently practiced for Willamette National Cemetery.

**Land Use**

Land use includes the current and planned use of the property in a jurisdiction by the governing authorities. The 2010 EA evaluated the land use at the project site, which was undeveloped hayfields and woodlands at the time of acquisition, and the surrounding area, which was primarily single-dwelling residential properties and the existing Willamette National Cemetery.

The 2010 EA determined that the proposed land acquisition for a cemetery expansion would have minimal impact on land use. Cemeteries are an allowed limited use within the single-dwelling residential zone, and structures associated with cemeteries (mausoleums, chapels, parking areas, etc.) may require a conditional use review (VA, 2010b).

### 3.1.2 Resources Evaluated and Carried Forward

In this SEA, effects, if present, 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), or negligible (i.e., an effect that is very minor and not easily detectable). 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. CEQ Regulations refer to the following:

- 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
- the immediate locality

Intensity is the severity of the potential impact considered in context. CEQ Regulations direct agencies to consider the following:

- both beneficial and adverse impacts
- impacts on human health and safety
- impacts on an area’s unique characteristics, such as historic or cultural resources, park lands, 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 alternative in terms of its effects on each individual technical resource area. The following resource areas are carried forward for detailed analysis:

- aesthetics
- air quality
- cultural resources
- geology, topography, and soils
- hydrology and water quality
- floodplains and wetlands
- wildlife and habitat
- noise
- transportation and parking
- utilities

3.2 Aesthetics

3.2.1 Existing Conditions

Willamette National Cemetery is located approximately 10 miles south of downtown Portland within a suburban environment. Residential properties and undeveloped woodlands are north of the cemetery. The Lincoln Memorial Park and Funeral Home is west of the cemetery; residential properties are south and east of the cemetery (City of Portland, 2017). The cemetery is maintained per NCA guidelines as a parklike setting with visually pleasing grounds. The grounds are interspersed with trees, and ornamental fencing surrounds the property.

The expansion site consists of undeveloped land characterized by rolling terrain and hayfields interspersed with woodlands and wooded ravines. The site is bounded to the north and west by Willamette National Cemetery and residential properties. To the east of the expansion site is SE 132nd Avenue and residential properties; additional residences are located to the south (Figure 1-1 depicts the cemetery boundaries and surrounding area). The topography of Willamette
National Cemetery facilitates views of the surrounding landscape, including Mount Hood to the east.

As previously described, 16.7 acres of the expansion site was conveyed to the City of Portland as a perpetual conservation easement. The forested riparian areas within these easements are protected against any development or land disturbance except for right-of-way access, as shown in Figure 1-3.

3.2.2 Environmental Consequences of the Preferred Alternative

In the short term, the presence of construction equipment used during the expansion of the cemetery could potentially affect the visual quality of the area for visitors to the cemetery. However, except for the ETO area and the maintenance facilities demolition and construction, cemetery expansion would occur separately from the previously developed cemetery sections. Much of the proposed new burial areas would be buffered from the current cemetery by the existing conservation easements, which would limit the view of construction sites and equipment that could be seen from the active cemetery. Construction activities would be conducted with sensitivity for interment services, and impacts would be temporary and minor.

In the short term, the construction activities would also affect the visual quality of the area for nearby residential areas, because the presence of construction equipment and grading activities would be visible to the residents to the south and east of the expansion site. Aesthetic changes to the expansion site likely would be visible from SE 132nd Avenue (east of the site) and SE Ridgecrest Road (south of the site), as well as from residences located along the boundaries of the site. However, the number of visual receptors would be relatively small; therefore, the construction impacts would be considered short term and minor.

In the long term, the Preferred Alternative is expected to benefit the aesthetics of the cemetery. Planned improvements, upgrades, and maintenance to facilities at the cemetery would preserve existing aesthetics and prevent deterioration of the facilities. The overall construction and expansion of the Willamette National Cemetery would enhance the aesthetic quality of the site to an area with parklike landscaping. The appearance of the undeveloped expansion site would change from intermediately mowed grass pasture to a manicured cemetery landscape. The VA’s NCA Facilities Design Guide dictates that the architectural design be integrated into the surrounding landscape and have a residential, noninstitutionalized character (NCA, 2010). The current design would develop the site in a manner that strives to preserve the appearance of the natural environment, with the planned establishment of mixed conifer and deciduous forest plantings with native understory plantings in areas that are unsuitable for gravesite development, as well as the removal of invasive plant species from undeveloped lands and the restoration of native plants. Current designs would preserve many existing features of the site, such as hills, wetlands, and trees in the conservation areas. Stormwater collection ponds would be naturalized to encourage wildlife habitat and preserve the natural setting of the cemetery. The eastern side of the expansion site would be designed and developed to take advantage of the elevation to allow for broad panoramas of the cemetery and Mount Hood.

The cemetery expansion site would be designed to have ornamental perimeter fencing along the non-cemetery property lines, as well as a 15-to-25-foot-wide landscape buffer, resulting in reduced visual impacts on surrounding property owners. The new entrance along SE 132nd Avenue would follow the masonry pilaster and ornamental fencing design of the other entrances along SE Mount Scott Boulevard. No new lighting is planned for the cemetery expansion, so there would be no impacts from the addition of lights to the area.
The Preferred Alternative would have no significant impacts on aesthetics.

3.2.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, improvements to, and expansion of, the cemetery would not occur, resulting in no change from the existing condition of the expansion site. Improvements to buildings and drainage systems on the original cemetery would not occur, building facades could eventually deteriorate, and standing water would intermittently collect at certain areas of the cemetery. The aesthetic benefits of developing the site into a National Cemetery would not occur. These impacts on aesthetics would not be considered significant.

3.2.4 Minimization/Management Measures

Proposed cemetery development under the Preferred Alternative would comply with the NCA Facilities Design Guide and, to the extent possible, with City of Portland development guidelines. NCA guidelines require that National Cemeteries maintain a parklike setting and keep the grounds visually pleasing. The following design measures and construction BMPs would be implemented to improve aesthetics:

- Incorporate existing topography and natural features into site design, wherever possible.
- Maintain landscaped areas, buildings, roadways, and signage.
- Design the site to accentuate existing viewsheds.
- Conduct construction activities with a sensitivity toward maintaining the dignity and solemnity of the National Cemetery environment during interment services.

Since the Preferred Alternative would not present any significant adverse impacts on aesthetics, specific minimization measures would not be required.

3.3 Air Quality

3.3.1 Existing Conditions

3.3.1.1 Regional Climate

The Portland climate is classified as warm-summer Mediterranean. Per the Köppen-Geiger climate classification system, the climate is characterized by humid, mild winters and dry, short, warm summers. Precipitation peaks in December, averaging approximately 5.9 inches, and is lowest in July, averaging approximately 0.6 inches. Temperatures average 53.6 degrees Fahrenheit and average annual precipitation totals approximately 36.3 inches (Kottek, Grieser, Beck, Rudolph, & Rubel, 2006).

3.3.1.2 National Ambient Air Quality Standards

Under the Clean Air Act, the USEPA established National Ambient Air Quality Standards (NAAQS) for 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.
Areas that violate a NAAQS are designated as nonattainment areas; areas 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.

The USEPA General Conformity Rule (40 CFR Part 51) applies to federal actions in maintenance areas, such as the Preferred Alternative, and nonattainment areas. A conformity applicability analysis is the first step to assess if a federal action must be supported by a full conformity determination. If the results of the applicability analysis indicate that the total direct and indirect emissions of a proposed project would not exceed the *de minimis* emissions thresholds, then the conformity evaluation process is completed. If total direct and indirect emissions would equal or exceed the *de minimis* thresholds, then a full conformity determination in accordance with the General Conformity Rule is required to ensure that federal actions do not cause or contribute to violations of the NAAQS or affect NAAQS attainment.

### 3.3.1.3 State and Local Air Quality

The USEPA retains oversight but has delegated implementation of most Clean Air Act requirements pertaining to this region to the Oregon Department of Environmental Quality (ODEQ). Oregon air quality statutes are codified at Oregon Revised Statutes (ORS) Chapter 468A, Air Quality.

Willamette National Cemetery is within the Portland Interstate Air Quality Control Region, which includes Benton, Clackamas, Columbia, Lane, Linn, Marion, Multnomah, Polk, Washington, and Yamhill Counties in Oregon, and Clark, Cowlitz, Lewis, Skamania, and Wahkiakum Counties in Washington (40 CFR 81.51). The Portland Interstate Air Quality Control Region is designated as a maintenance area for both ozone and carbon monoxide. The area is currently designated as in attainment for all other criteria pollutants (USEPA, 2017). The *de minimis* threshold for an ozone maintenance area is 100 tons per year of nitrogen oxides or volatile organic compounds; while the *de minimis* threshold for a carbon monoxide maintenance area is 100 tons per year of carbon monoxide (40 CFR 93.153). Baseline air emissions within the Portland Interstate Air Quality Control Region are summarized in Table 3-2.

<table>
<thead>
<tr>
<th>VOC (tpy)</th>
<th>CO (tpy)</th>
<th>NO$_x$ (tpy)</th>
<th>SO$_2$ (tpy)</th>
<th>PM$_{10}$ (tpy)</th>
<th>PM$_{2.5}$ (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,128</td>
<td>30,671</td>
<td>33,438</td>
<td>12,515</td>
<td>9,085</td>
<td>6,582</td>
</tr>
</tbody>
</table>

Source: (USEPA, 2016a)

Notes: VOC=volatile organic compound; CO=carbon monoxide; NO$_x$=nitrogen oxides; PM$_{10}$=particulate matter less than or equal to 10 microns; PM$_{2.5}$=particulate matter less than or equal to 2.5 microns; tpy=tons per year

The ODEQ’s most recent Air Quality Report identified fine particulate matter (i.e., particulate matter measuring less than 2.5 microns in diameter), air toxics, and ground-level ozone, to be the air pollutants of greatest concern in Oregon (ODEQ, 2016). Carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter measuring less than 10 microns in diameter are far below the criteria pollutant federal health standard; these pollutants have been trending down over recent years. Ozone and fine particulate matter are monitored in the Portland area; air quality is overwhelmingly classified as “good” (84 percent of the time) or “moderate” (16 percent of the time). Only two days were classified as “unhealthy,” due to fine particulate emissions attributed to a forest fire.
No large sources of regulated air emissions exist on Willamette National Cemetery or on the adjoining expansion site (e.g., boilers and generators). Thus, the VA, as the owner of the site, is not required to have a Title V air operating permit, based on current conditions.

3.3.2 Environmental Consequences of the Preferred Alternative

Site preparation and construction activities such as clearing, grading, digging, roadwork, and temporary stockpiling of soils would generate fugitive dust emissions. Fugitive dust emissions (i.e., particulate matter) would be greatest during site preparation and would vary from day to day depending on the work phase, level of activity, and prevailing weather conditions. The quantity of uncontrolled fugitive dust emissions from the construction site would be proportional to the area of land being worked and the level of activity. Exhaust from construction equipment used for this work would also contain criteria pollutant and carbon dioxide emissions. These emissions could potentially cause minor, localized, short-term impacts on air quality and create minor, temporary nuisance concerns for surrounding landowners, such as reduced visibility on adjacent roadways.

The Preferred Alternative would increase the number of vehicles traveling to and from the cemetery. In the short term, the use of work vehicles and other exhaust-emitting equipment would increase during the construction phase. In the long term, more visitors would travel to and from the site each year following cemetery expansion. These increases, though long term, would have a negligible impact on local air quality. Intermittent, short-term increases of some pollutants from burial practices using small-scale excavation equipment would also occur. No other long-term sources of emissions or stationary sources of emissions would be expected under the Preferred Alternative.

The estimated construction and operations emissions are summarized in Table 3-2. For purposes of analysis, all proposed activities were presumed to occur within one calendar year, which is meant to provide a conservative approach to estimating air emissions. Site preparation, demolition, and construction activities are estimated to take approximately six months to complete. Site preparation and demolition activities would likely include backhoes, graders, bulldozers, and forklifts. Construction equipment would likely include loaders, forklifts, a crane, and portable diesel generators. Paving activities would likely include rollers and pavers. Other miscellaneous equipment used during site preparation, demolition, or construction could include air compressors for architectural coatings, landscaping equipment, and small hand-held tools. Furthermore, the duration of general construction activities would require on-road truck deliveries, concrete trucks, heavy trucks, and passenger trucks gaining access to the site on a regular basis. Following completion of construction, equipment would be used intermittently for burials, and visitors would begin coming to the expansion site for burials and visiting gravesites. The calculations indicate that annual emissions would be well below the de minimis thresholds for all maintenance criteria pollutants and precursors. It is not anticipated that short- or long-term emissions would result in a violation of any NAAQS. Furthermore, increased emissions would be a negligible percentage of regional emissions within the Portland Interstate Air Quality Control Region (shown in Table 3-1), and no noticeable effects on regional air quality would be expected.

The proposed cemetery expansion, improvements, and subsequent operation and maintenance under the Preferred Alternative would not result in significant impacts on air quality.
Table 3-2. Preferred Alternative Maximum Estimated Air Emissions Compared to de minimis Thresholds

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>VOC (tpy)</th>
<th>CO (tpy)</th>
<th>NOₓ (tpy)</th>
<th>SO₂ (tpy)</th>
<th>PM₁₀ (tpy)</th>
<th>PM₂.₅ (tpy)</th>
<th>CO₂e (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Phase: Non-road Equipment</td>
<td>0.23</td>
<td>1.18</td>
<td>1.62</td>
<td>0.003</td>
<td>0.08</td>
<td>0.07</td>
<td>269.24</td>
</tr>
<tr>
<td>Construction Phase: On-Road Trucks</td>
<td>0.01</td>
<td>0.23</td>
<td>0.26</td>
<td>0.0006</td>
<td>0.03</td>
<td>0.01</td>
<td>79.94</td>
</tr>
<tr>
<td>Construction Phase: Fugitive Dust Emissions (controlled)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>15.84</td>
<td>3.36</td>
<td>-</td>
</tr>
<tr>
<td>Operations (increased cemetery visitors, burials)</td>
<td>0.23</td>
<td>16.34</td>
<td>1.32</td>
<td>0.02</td>
<td>0.47</td>
<td>0.11</td>
<td>2,431.08</td>
</tr>
<tr>
<td>Total (tons per year)</td>
<td>0.47</td>
<td>17.75</td>
<td>3.20</td>
<td>0.02</td>
<td>16.41</td>
<td>3.55</td>
<td>2,780.27</td>
</tr>
<tr>
<td>de minimis Thresholds (tons per year)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: VOC=volatile organic compound; CO=carbon monoxide; NOₓ=nitrogen oxides; PM₁₀=particulate matter less than or equal to 10 microns; PM₂.₅=particulate matter less than or equal to 2.5 microns; CO₂e=carbon dioxide equivalents; tpy=tons per year.

General Conformity Applicability

The VA must complete a conformity applicability analysis to determine whether the action is subject to the General Conformity Rule (40 CFR Part 51). Willamette National Cemetery is within a maintenance area for carbon monoxide and ozone.

An action is exempt from the General Conformity Rule if the total direct and indirect annual emissions from the project would be below the established de minimis thresholds in 40 CFR 93.153(b)(2) for carbon monoxide and volatile organic compounds and nitrogen oxides, which are ozone precursors. As shown in Table 3-2, total estimated direct and indirect emissions for proposed activities are well below the de minimis thresholds for carbon monoxide and ozone maintenance areas. Therefore, the action is exempt from the General Conformity Rule requirements to prepare a full conformity determination.

3.3.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, expansion and improvements of the 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 negligible, long-term increases in criteria pollutant emissions, because veterans and their families would be required to travel greater distances to other national cemeteries in the region once gravesites at Willamette National Cemetery have been exhausted. No significant impacts on air quality would be expected.
### 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.
- Develop a spoils management plan. This will entail stabilizing existing spoils storage areas through excavation, compaction, and stabilization measures.
- 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, which reduces energy waste (VA, 2014). Since the Preferred Alternative would not present any significant adverse impacts on air quality, specific minimization measures would not be required.

### 3.4 Cultural Resources

Section 106 and Section 110 of the National Historic Preservation Act of 1966, as amended (NHPA) (54 U.S.C. 300101 et seq.), ensures that federal agencies consider cultural resources, defined as any prehistoric or historic district, site, building, structure, or object eligible for inclusion on the National Register of Historic Places (NRHP), in their proposed programs, projects, and actions prior to initiation.

Analysis of potential impacts on cultural resources considers both direct and indirect impacts. Direct impacts may be the result of physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the importance of the resource; introducing visual, atmospheric, or audible elements that are out of character for the period the resource represents (thereby altering the setting); or neglecting the resource to the extent that it deteriorates or is destroyed. An adverse effect per Section 106, Criteria for Adverse Effect (36 CFR 800.5), is if an undertaking (action) diminishes any of the characteristics that qualify a property for inclusion in the NRHP. These effects are analyzed according to the integrity of the property’s location, design, setting, materials, workmanship, feeling, and association.

### 3.4.1 Existing Conditions

A Phase I Cultural Resources Survey (State Historic Preservation Office [SHPO] case no. 22700) was conducted in July 2009 pursuant to the 2010 EA for the planned expansion of Willamette National Cemetery (AMEC Earth & Environmental, 2009). Further research was conducted in 2016 for this SEA to identify sites not previously discussed in 2010 based on the prior proposed action.
The goals of the 2009 survey were to (1) identify archaeological or historic architectural resources in the project’s area of potential effect (APE); (2) identify historic architectural resources within the APE that are potentially eligible for inclusion in the NRHP; and (3) establish the potential of the project APE to contain archaeological sites not previously identified. The Phase I investigation consisted of an examination of all site files, maps, and previous cultural resource investigation reports for the project tract and adjacent areas at the Oregon SHPO. In addition, historic General Land Office maps, photographs, and other historic archival materials were reviewed at the Clackamas Public Library.

The 2009 Cultural Resources Survey concluded that no archaeological resources were identified within the 38-acre expansion site, and no areas were identified as having a high probability for the presence of unknown and significant archaeological sites. Anderson Engineering submitted a consultation letter to the Oregon SHPO dated August 5, 2009 (SHPO case no. 09-1518), stating that no historic properties were identified, and no further archaeological work was recommended (Anderson Engineering of Minnesota, LLC, 2009). In a letter dated August 21, 2009, Mr. Dennis Griffin, State Archaeologist for the Oregon SHPO, concurred with the findings and offered that no further archaeological work was needed (Oregon SHPO, 2009).

The maintenance and administration areas within the existing cemetery that are within the APE were consulted upon in 2012 for proposed work by the VA (VA 2012). A cultural resources survey report (Jensen 2012) was submitted to the Oregon SHPO in July 2012 and concurred upon. A records search at the SHPO and an intensive-level pedestrian survey of the APE was conducted as part of that report. It was determined that no archaeological resources had been recorded or identified within one mile of the APE of this 2012 survey. In addition, neither the pedestrian survey nor communications with tribal representatives yielded any information on archaeological sites, or traditional cultural areas within or adjacent to the APE (the administration and service area of the existing cemetery).

Additional background research of the Oregon SHPO historic sites inventory was conducted in June 2016. Willamette National Cemetery was determined eligible for the NRHP in 1983 and listed on the NRHP in 2016. It has 34 contributing resources and 1 noncontributing resource. The National Park Service has determined that all National Cemeteries are exceptionally significant places, with a period of significance from 1950 to present (National Park Service, 2011). Areas used for cemeteries, which include buildings, landscape features, roads, monuments, and markers, among other resources, are considered contributing, whereas unimproved acreage is noncontributing to the eligible cemetery. The one noncontributing resource to Willamette National Cemetery is the 38-acre unimproved area to be developed for cemetery expansion. Once the expansion site is planned and developed, it will be included as a contributing resource.

Building 2001 (Superintendent’s Lodge) and Building 3003 (maintenance building) are resources on the original cemetery. These two buildings are original to the campus, dating to 1951, when the cemetery was first designed. Building 2001 was built in 1951 as a one-story, superintendent’s lodge, and now functions as administrative offices. This ranch-style, wood-frame building has an L-shaped footprint and is clad with Roman brick and stucco. It has a Dutch-gable roof clad with asphalt shingles. The only alterations to the dwelling include replacement windows installed in the 1990s. The NRHP nomination for the cemetery explains that this building retains a high degree of aesthetic integrity and much of its historic character. The second original building in this group, Building 3003, was designed as the original administrative office for the cemetery, and it currently serves as the maintenance office. Similar to Building 2001, it is a one-story, ranch-style building.
on a concrete foundation, and clad with Roman brick and stucco. It is capped with a hipped roof sheathed with asphalt shingles and features wide eaves. It has also undergone several modifications, including a mid-1970s L-shaped addition. The main elevation was reoriented to the side elevation, and the original entrance was in-filled. The alterations during the 1970s also removed all historic materials on the interior and dramatically changed the interior plan.

Willamette National Cemetery is the last cemetery designed by the U.S. Army Corps of Engineers (USACE) before responsibilities were transferred to the VA in 1973. It was designed as a Memorial Park cemetery, focusing on the natural aesthetics of the landscape, versus the man-made objects and structures creating visual focal points. No monuments are on display and all gravesite markers are flat. It is considered the only National Cemetery that “most fully incorporated the tenets of the Memorial Park cemetery movement” (Hardy Heck Moore, Inc, 2012). It is also one of three cemeteries that exclusively uses flat markers in the post-World War II period. Willamette National Cemetery may be the only one of its kind conceived in the Memorial Park style that retains its original structures and buildings.

Other than the National Cemetery, no other aboveground historic properties are within the project area or within the viewshed for the proposed cemetery expansion.

Native American Resources and Consultation

For all federally proposed actions, federal agencies are required to consult with federally recognized Native American tribes in accordance with NEPA, NHPA, Native American Graves Protection and Repatriation Act (NAGPRA), EO 13007, and EO 13175. No Traditional Cultural Properties or Native American sacred places are currently known to exist within the project area.

During the development of this SEA, the VA will consult with federally recognized Native American tribes having possible interest in the project area. As part of the public outreach effort, letters will be disseminated to those Native American tribes. All agency and tribal coordination materials are included in Appendix A.

3.4.2 Environmental Consequences of the Preferred Alternative

One new building would be constructed under the Preferred Alternative, Building 3005. This building would be built in the same location as the former Superintendent’s Lodge (Building 2001). Assessing adverse effects of new construction is evaluated as to whether the character of the property’s use or physical features that contribute to its historical significance are affected, and if its introduction causes a visual element that would diminish the integrity of the property’s significant historic features. The construction of Building 3005 would not result in an adverse effect. It would fall within the period of significance of the historic district and be considered a contributing resource. Since contemporary buildings fall within the period of significance and are contributing resources their designs would be considered compatible to the historic district. In addition, it would conform to the Secretary of the Interior’s Standards for Rehabilitation regarding new construction. The design of this new building would be compatible with the historic materials, features, size, scale, and proportion; and massing of the historic lodge, maintenance, and service buildings in the district and its environment. Placing the building in the location of a previous building maintains spatial relationships that would not adversely affect the district’s integrity. Therefore, there would be no adverse effect on the historic district and no significant impacts on cultural resources.
A new covered shelter for storing equipment in association with the existing maintenance facility would be constructed in the same location as Building 3003. The shelter would measure 90 feet wide and 30 feet deep. Due to the proximity to the existing maintenance facility and the screening with vegetation and fencing, this facility would not have an adverse effect to the historic district.

Additional parking would be added under the Preferred Alternative between the main road, SE Mount Scott Boulevard, to the new Building 3005 and Building 3003. The siting of the new parking areas would not have an adverse effect since it would not be within any important views within the cemetery, would not affect any of the character-defining features of the cemetery, would not diminish the Memorial Park design of the facility, and would not cause the loss of original materials. Therefore, the additional parking areas would not have a significant impact on cultural resources.

The VA initiated consultation with the Oregon SHPO in a letter dated January 25, 2018. This correspondence is available in Appendix A of this document.

**Summary of Impacts on the Cemetery Expansion Site**

The Preferred Alternative would not directly or indirectly affect any historic properties that are eligible for listing in the NRHP outside of the National Cemetery itself.

No known cultural resource sites are located within the expansion site. Archaeological sites are more often found along drainage sites, all of which within the expansion site are protected by conservation easements. The Oregon SHPO confirmed that no NRHP-eligible or -listed historic or archaeological properties exist in the expansion site and concurred that no additional archaeological work is needed in the expansion site. Some potential exists for disturbance of previously unknown archaeological resources during the construction and excavation actions. Adherence to federal regulations would reduce potential impacts on previously unknown sites during construction.

**Summary of Impacts on the Original Cemetery Site**

The Preferred Alternative would demolish two contributing resources to the original Willamette National Cemetery, Building 2001 and Building 3003, which is considered an adverse effect on cultural resources under the NHPA. Removal of these two original resources of the NRHP-listed cemetery affects the integrity of those contributing resources thus causing an adverse effect. The demolition of Building 2001 and Building 3003 would not diminish the NRHP status of the cemetery; therefore, it would not be a significant impact on cultural resources. The VA has consulted with the Oregon SHPO regarding this adverse effect, and will mitigate this effect through Oregon State Level Documentation of the buildings that would be demolished. A memorandum of agreement between the VA and the SHPO is being drafted.

The Preferred Alternative includes replacing furnishings and signage to match that of the cemetery expansion site. The VA does not consider this action to rise to the level of an adverse effect. It is the VA’s policy to treat these types of infrastructure resources as secondary and not as highly significant; therefore, their removal would not cause an effect. The replacement of the original furnishings and signage would not diminish the NRHP listing of the cemetery; therefore, there would not be a significant impact on cultural resources.
3.4.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, expansion would not occur, alterations to the NRHP-eligible Willamette National Cemetery would not follow, and operations would remain at their current level. Needed upgrades at cemetery facilities would not occur, possibly resulting in the eventual degradation and deterioration of NRHP-eligible structures. The No Action Alternative would not have significant impacts on cultural resources.

3.4.4 Minimization/Management Measures

Based on consultation with the Oregon SHPO, the VA will mitigate the adverse effect from demolition of two buildings by completing an Oregon State Level Documentation of Buildings 2001 and 3003. No additional project-specific minimization measures are recommended, other than adherence to federal and state regulations. The VA would comply with the NHPA, Archaeological Resources Protection Act of 1979, NAGPRA, American Indian Religious Freedom Act, 36 CFR Part 79, EO 13007, EO 13175, and Secretary of the Interior’s Standards for Rehabilitation during the development process. Should human remains or other cultural items, as defined by NAGPRA, be discovered during project construction, work would immediately cease. The VA, each of the interested Native American tribes, and the SHPO would be contacted, and a qualified archaeologist would properly identify and appropriately treat discovered items in accordance with applicable state and federal law(s). Potential impacts on cultural resources would not be significant if these measures were employed.

3.5 Geology, Topography, and Soils

3.5.1 Existing Conditions

The 2010 EA presents background information on geology, topography, and soils, describing the potential impacts on these resources from VA development of the expansion site. This SEA refines the findings of that EA based on site-specific designs and the configuration of the disturbance envelope on the expansion site.

3.5.1.1 Geology

Willamette National Cemetery is within the Willamette Valley region. The area is characterized by andesite and basalt (both are igneous rock formations produced during volcanic eruptions) and alluvium of the High Cascades (VA, 2010b). Alluvium consists of very poorly consolidated gravel and sand in the stream channels, gravel and sand lenses usually overlain by silt and minor clay on the floodplain, and organic material usually in abandoned channels beneath several feet of silt or clay. Alluvial soils are deposited and subject to erosion and redeposition by water. The thickness of the alluvium is variable. The sand and gravel is generally thin and rests on bedrock in small stream channels where gradients are high. The smaller floodplain deposits of silt and gravel tend to be narrow, thinning out at the canyon sides, whereas the larger floodplains may contain recent alluvium that is 30 feet thick or more.

A geotechnical investigation conducted on the expansion site in June 2016 used 13 subsurface borings at locations throughout the site to clarify soil, groundwater (discussed in Section 3.6.1), and depth-to-bedrock conditions. Twelve of those borings were drilled to a maximum depth of approximately 16.5 feet below ground surface (bgs) without encountering bedrock.
Figure 3-1. Slopes and Proposed Project Elements at the Expansion Site
Boring B-11, located in the northwestern section of the expansion site directly adjacent to the conservation easement, encountered weathered basaltic bedrock at approximately 9 feet bgs. Although this does not preclude shallower bedrock in untested areas of the site, it suggests that excavation to 16.5 feet is possible throughout much of the expansion site (GeoPacific Engineering, Inc, 2016).

3.5.1.2 Topography

The expansion site consists of gently to steeply sloping terrain. The elevation of the site ranges from approximately 580 to 665 feet above mean sea level. The topography includes relatively flat, broad plains; moderately sloping areas; and steeply sloping areas. The site contains two historic drainage ravines oriented northeast-to-southwest across the site. These ravines are heavily vegetated and primarily forested, and they generally fall within the conservation easement areas on the site.

Slopes at the expansion site range from 8 to 30 percent. Most of the areas with slopes greater than 25 percent are within existing conservation easements. Slopes on the expansion site outside the conservation easement are gently to moderately sloping (see Figure 3-1).

3.5.1.3 Soils (Including Prime Farmland Soils)

Cascade silt loam (8 to 15 percent slope, and 15 to 30 percent slope) covers the entirety of the expansion site. The soils within the expansion site have not been significantly altered (Balance Environmental, 2017). The ETO area, sections DD1 and DD2 on the original cemetery, is also Cascade silt loam with a 15 to 30 percent slope. Proposed facility upgrades in and around Buildings 2001 and 2003 on the original cemetery would occur on Cascade silt loam with a slope of 3 to 8 percent (USDA, 2016). The Cascade silt loam series consists of a moderately deep fragipan, somewhat poorly drained soil originating from silty materials. Per the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, Cascade silt loam of slopes greater than 8 percent are “farmland of statewide importance” (USDA, 2016). Cascade silt loam with a slope of less than 8 percent and drained would be considered prime farmland.

Prime farmland is protected under the Farmland Protection Policy Act (7 U.S.C. 4201 et seq.) to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. Because this project contains soil of statewide importance, the VA coordinated with the NRCT to determine the potential effects of the Preferred Alternative on farmland soils (see Section 3.5.2).

Soil Erosion and Stormwater Management

The USEPA has authorized the State of Oregon to administer the federal National Pollutant Discharge Elimination System (NPDES) program, including stormwater discharge permits. The state’s permit program, known as the Water Quality Permit Program, is enforced by the ODEQ. The Water Quality Permit Program regulates point-source discharges of stormwater into Oregon’s surface waters from certain municipal, industrial, and construction activities.

3.5.2 Environmental Consequences of the Preferred Alternative

The Preferred Alternative would have no impacts on existing geologic features. Improvements to and expansion of Willamette National Cemetery under the Preferred Alternative would have minor, adverse impacts on topography and soils. In some areas, minor alterations to topography
would be required to prepare moderately sloped areas for development by reducing slopes, as recommended in the NCA Facilities Design Guide. Interment areas for cremated remains can have a maximum of 15 percent slope; crypts must be between 2 and 3 percent slope; walks and parking can have a maximum of 5 percent slope; and roadways must be between 1 and 10 percent slope (NCA, 2010). Mowed areas cannot exceed 25 percent slope. The expansion would be designed in concert with the site’s natural topography to the extent possible to avoid extensive grading and to preserve the natural and scenic features of the site (NCA, 2010). Because the site drainages are largely protected under conservation easement, no dramatic alterations to drainage patterns would occur. Paved areas would be designed to drain to a suitable, site-specific, and properly engineered and designed stormwater management system.

Minor, direct and indirect, short-term, adverse impacts from soil erosion and sedimentation (E&S) would be expected during construction activities that require grading and earthwork. New construction would remove vegetative cover, disturb the soil surface, and compact the soil. Until it is stabilized, disturbed soil would 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, potential E&S effects would be minimized or prevented through use of appropriate BMPs and adherence to the terms of the ODEQ General Permit NPDES Stormwater Discharge Permit.

Once construction is complete, soils would be intermittently disturbed for interments. Given the small areas disturbed and the short duration that the areas would be exposed, long-term E&S effects would be negligible. Soils would be stabilized with vegetation.

In January 2018, the VA consulted with the NRCS Oregon City Service Center to determine the potential effects of the Preferred Alternative on prime farmland soils. The NRCS determined that the site does not contain prime or unique farmland, but does contain farmland of statewide importance (as discussed in Section 3.5.1.3). The site contains approximately 0.01 percent of the total farmland within Clackamas County, and 98.7 percent of the farmland in Clackamas County has soils of the same or higher relative value as the soils on the proposed site. Therefore, there would be no significant impacts to farmland soils under the Preferred Alternative. The Farmland Conversion Impact Rating is located in Appendix A.

Implementation of the Preferred Alternative would not result in significant impacts on geology, topography, or soils.

3.5.3 Environmental Consequences of the No Action Alternative

The No Action Alternative would result in no impact on geology, topography, or soils, because expansion would not occur and operations would remain at their current level.

3.5.4 Minimization/Management Measures

The use of BMPs to reduce E&S impacts would help minimize short-term impacts on local soils. The construction contractor would apply for coverage under the ODEQ’s NPDES General Permit for Stormwater Discharge (No. 1200-C), which would require erosion-prevention BMPs. The construction contractor would implement the following actions, as necessary, to minimize soil loss and protect surface water quality as part of the NPDES permit.
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 ODEQ permitting requirements:

- Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming sources of erosion.
- Minimize the disturbance of steep slopes.
- Minimize erosion during and after soil disturbance using BMPs such as temporary seeding and planting, final vegetative cover, mulches, compost blankets, erosion control blankets and mats, and soil tackifiers.
- Use water or a soil-binding agent or other dust-control technique as needed to avoid wind-blown soil.
- Preserve existing vegetation and revegetate open areas when practical. Do not remove temporary sediment control practices until final vegetative cover or permanent stabilization measures are established.
- Maintain a natural vegetative buffer of at least 50 feet between disturbance areas and jurisdictional waters of the United States.
- Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion. BMPs used for these purposes include diversion of stormwater run-on; trench drains, slope drains, French drains, and subsurface drains; temporary diversion dikes; earthen berms; grass-lined or armored channels (such as turf reinforcement mats); drainage swales; energy dissipaters; rock outlet protection; drop inlets; and check dams.
- Control sediment, as needed, along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internally and at the site boundary by using BMPs such as sediment fences, buffer zones, sediment traps, rock filters, compost berms/compost socks, fiber wattles, storm drain inlet protection, and temporary or permanent sedimentation basins.
- Design impervious surfaces to drain to stormwater management systems.
- Create and maintain tree-lined borders to minimize viewshed impacts.
- Obtain all applicable permits in advance of construction activities and adhere to permit conditions during construction.

Following approval of the ODEQ permit and implementation of permit requirements, soil E&S impacts would be minor.

3.6 Hydrology and Water Quality

Hydrology and water quality include those portions of the natural environment related to surface and groundwater and their measurable health per state and federal water quality regulations.
3.6.1 Existing Conditions

The expansion site is composed of rolling uplands (8 to 30 percent slopes) and two ravines. The ravines each contain a drainage stream, shown in Figure 3-2. The northern intermittent stream is the headwaters of Wahoo Creek, and the southern stream (which has one intermittent tributary that joins a perennial tributary on the site) is the headwaters of Deardorff Creek. Both creeks flow in a northeastern direction off the site toward Johnson Creek, north of Willamette National Cemetery. The site’s hydrology has been slightly altered by road construction, and, in a few areas, the drainages have been channelized through culverts to allow for farm vehicle access (Balance Environmental, 2017). There is a man-made pond in the southern stream. Both drainage streams fall within areas of mixed forest that are protected by conservation easements managed by the City of Portland. These easements were enacted to improve stormwater quality in accordance with the federal Clean Water Act, Safe Drinking Water Act, and Endangered Species Act.

The expansion site falls within the Johnson Creek–Willamette River Watershed, which is a subwatershed within the Lower Willamette Watershed (Hydrologic Unit Code 17090012). Johnson Creek and its riparian areas provide important habitat for some federally threatened and endangered and other sensitive species, as discussed in Section 3.8 (City of Portland, 2011).

Johnson Creek, which flows roughly 26 miles through five cities and two counties, is fed by numerous springs and about 50 inches of rain annually (Johnson Creek Watershed Council, 2015). Johnson Creek flows west into the Willamette River, which ultimately flows north into the Columbia River.

The USEPA and ODEQ, in accordance with Clean Water Act Section 303(d), have identified Johnson Creek as an impaired water body with total maximum daily loads for dichlorodiphenyltrichloroethane (DDT), dieldrin, fecal coliform, biochemical oxygen demand, *Escherichia coli* (E. coli), mercury, temperature, and turbidity (USEPA, 2016b). The water body has been considered impaired since 1998, and macroinvertebrate monitoring has identified many sections of the water body as severely impaired. Over the past 20 years, hundreds of restoration projects have been conducted, and more are currently being planned (Johnson Creek Watershed Council, 2015).

Most drinking water for the residents of Portland comes from surface water from the Bull Run River Watershed to the east of the Lower Willamette Watershed, but groundwater from the Columbia South Shore Well Field (north of I-84 along the Columbia River) is a backup source. The expansion site is within the Willamette lowland basin-fill aquifer, which is composed predominantly of unconsolidated sand and gravel (Whitehead, 1994). Most aquifer recharge in the lowland aquifer occurs through precipitation (predominantly November to April), and most groundwater discharges to streams throughout the basin (USGS, 2005). The static groundwater table is anticipated to be present at approximate depths ranging from 400 to 500 feet below ground surface. Groundwater conditions vary depending on the season, local subsurface conditions, changes in site utilization, and other factors. Perched groundwater may be encountered in localized areas (GeoPacific Engineering, Inc, 2016). Aquifers in the Willamette Watershed (Hydrologic Unit Code 170900) have historically had high arsenic content and are monitored by the U.S. Geological Survey (USGS) and the Oregon Water Resources Department (OWRD) (USGS, 1999).
Figure 3-2. Waterways in the Vicinity of Willamette National Cemetery

Existing Willamette National Cemetery

Source: Department of Veterans Affairs, USGS, Clackamas County, Esri Basemaps 2017, Balance Environmental 2017
6/13/2017
3.6.2 Environmental Consequences of the Preferred Alternative

Surface Waters

The Preferred Alternative would result in minor, short-term, adverse impacts on surface waters. Impacts would primarily result from potential turbidity and sedimentation associated with stormwater runoff from approximately 16.7 acres of the expansion site. Ground-disturbing activities in the ETO area, casketed and cremated remains areas, memorial walls, landscaping, facilities upgrades, and most roadways would occur outside the conservation easement and away from surface water bodies. Construction activities and removal of vegetation from the site could temporarily increase sediment loads in surrounding streams, but this would be minor, considering the vegetated state of the areas surrounding the streams. Furthermore, the construction contractor would use BMPs to minimize impacts. Specific soil erosion and stormwater management BMPs across the site are discussed in Section 3.5.4.

As shown in Figure 3-1, a portion of the new roadway (approximately 0.4 acres) would be within the conservation easement. A bridge and culvert would also be required where the new roadway crosses the stream. This construction could result in temporary diversion of flow as well as potential short-term increases in sediment load to streams and wetlands, resulting in adverse effects on surface water quality. Adherence to Section 404 of the Clean Water Act and Oregon Removal-Fill Law (ORS 196.795-990) permitting requirements and associated BMPs (see Section 3.6.4) would assess the functions and values of the proposed impact area, develop steps to minimize these adverse impacts, and promote surface water quality following the initial site preparation and construction of the structure. The drainages on the site are protected by conservation easement and buffered by heavy vegetation and forested areas; therefore, development of gravesites and associated infrastructure should not have significant impacts on these streams. However, site design would need to consider existing seeps and drainage pathways, especially in low-lying areas, to promote proper drainage.

Development of a road crossing spanning the onsite wetlands would need to completely span any stream or wetland area to avoid impacts on hydrology. Plans for construction of this bridge aim to utilize as much of the existing right-of-way easement as possible and to limit total waters/wetlands of the United States disturbance to less than 5,000 square feet. No significant impacts on hydrology and water quality of surface water resources would be expected to occur.

Groundwater

The cemetery expansion and improvements associated with the Preferred Alternative would have no effect on groundwater resources. Gravesites planned in high saturation areas that are close to the water table may require additional fill to limit interments’ exposure to water runoff and groundwater. Standard NCA crypt designs use subsurface concrete crypts, into which caskets are set, rather than burying them directly in the soil. Interments experiencing prolonged groundwater exposure could potentially encounter remains and subsequently with embalming fluids. The VA is not involved in funeral homes processes; however, modern embalming fluids are not arsenic-based and are biodegradable.

Implementation of the Preferred Alternative would not result in significant impacts on hydrology and water quality of groundwater resources.

3.6.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, surface and ground hydrology would remain the same, and no impacts on hydrology or water quality would occur.
3.6.4 Minimization/Management Measures

As discussed in Section 3.5.4, the use of BMPs to reduce E&S impacts would minimize impacts on water resources. Furthermore, applicable NPDES permits would require stormwater management, and E&S-control BMPs including earth berms, detention basins, vegetative buffers, and equipment spill prevention techniques, to reduce impacts on surface waters and stormwater.

To comply with the Clean Water Act, coordination with the City of Portland Environmental Services Office, ODEQ, and USACE would be necessary to obtain applicable Section 401/404 permits under the Clean Water Act, NPDES permits, and any applicable local permits (e.g., utility/sewer connections). These permits would identify further stormwater BMPs and methods for stormwater routing, storage, and treatment.

In addition, the VA would implement management, BMP, and applicable permitting actions to minimize potential impacts on surface water resources, as outlined below:

- Complete work near water bodies using equipment having the least impact (e.g., use of rubber-tired vehicles versus tracked vehicles when feasible).
- Ensure that no motorized equipment is operated (driven) in the water.
- Confine construction impacts to the minimum area necessary to complete the work.
- Perform work in a manner that does not inhibit fish passage.

3.7 Floodplains and Wetlands

3.7.1 Existing Conditions

3.7.1.1 Floodplains

EO 11988, Floodplain Management, as amended by EO 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, requires that federal agencies avoid development, when possible, in the 100-year and the 500-year flood zones. The cemetery expansion site is not located in either the 100-year or the 500-year flood zones, as mapped by the Federal Emergency Management Agency (FEMA) (VA, 2010b). This is an area of minimal flooding hazard. The easement on the expansion site provides beneficial flood attenuation.

3.7.1.2 Wetlands

A wetlands delineation of the expansion site was completed in 2017 (Balance Environmental, 2017). The survey’s methodology followed the USACE’s 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. The survey of the waterways was based on guidance from A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. The site consists of rolling topography with two undeveloped ravines in the area. The survey of the area showed that there are six wetlands (W-1, W-2, W-3, W-4, W-5, and W-6) comprising 0.51 acres in the expansion site, as well as a pond and three tributaries of Johnson Creek (Figure 3-3).
Figure 3-3. Delineated Wetlands and Proposed Project Elements at the Expansion Site
Wetland 1 (W-1, palustrine forested wetland) is in a flatter area near a groundwater discharge zone that contains a small stream that likely provides natural surface water discharge. The soils in W-1 are silty loam. The dominant vegetation in this area is facultative wetland and facultative species.

Wetlands 2 and 3 (W-2 and W-3, palustrine emergency wetlands) are described together because they are both part of one wetland that is bisected by a gravel farm road. These wetlands occur above an artificial impoundment, and the soils are saturated with a high water table. The soils in W-2 and W-3 are silty and clay loam. Reed canary grass (Phalaris arundinacea), a facultative wetland species, dominates the area.

Wetland 4 (W-4, palustrine scrub-shrub wetland) had clay loam soil containing concentrations in the top 2 inches and below 15 inches that meet the qualification of a depleted matrix. Hydrology included saturation at 9 inches. W-4 had a dominance of facultative wet and facultative species.

Wetland 5 (W-5, palustrine emergent wetland) had clay loam soil sampled below the top 3 inches and contained concentrations that meet the qualification of hydric soil with a redox dark surface. Hydrology within the area included saturation at the surface and a water table at 5 inches. W-5 had a dominance of facultative wet and facultative species.

Wetland 6 (W-6, palustrine emergent wetland) occurs in a depression between the large fields and a forested area, just west of a farm road. The wetland is dominated by several grasses such as reed canary grass, redtop (Agrostis gigantea), and tall fescue (Schedonorus arundinaceus). The soils in the wetland meet the criteria for redox dark surface. Depth to water table is 15 inches, which meets the wetland hydrology criteria. The hydrology for this wetland is likely provided by precipitation ponding in the depression. The wetland is in a drainage that runs along a field road connecting to the southern stream.

3.7.2 Environmental Consequences of the Preferred Alternative

3.7.2.1 Floodplains
The expansion site is not located in either a 100-year or 500-year flood zone; therefore, there would be no direct impacts on regulated floodplains resulting from the Preferred Alternative.

3.7.2.2 Wetlands
The Preferred Alternative would be expected to have minor, short-term and long-term, adverse impacts on wetlands. Impacts would largely result from potential stormwater runoff, sedimentation, and disturbance of wetlands during construction of a wetlands-spanning crossing. As described in Section 3.5, site preparation and construction would result in soil exposure and sedimentation of surrounding waterways via stormwater runoff. The implementation of stormwater- and E&S-control BMPs, as described in Section 3.5.4, would ensure that effects are short term and minor. In addition, the buffers provided by the vegetated conservation easements surrounding the wetlands would further minimize these impacts.

The six wetlands (W-1, W-2, W-3, W-4, W-5, and W-6) within the expansion site are within the conservation easement, except for a small portion of wetland W-5; however, no impacts are expected to occur in this location. The construction of a wetlands crossing from the original cemetery to the expansion site would result in impacts to one of the tributaries of Johnson Creek, which flows into the Willamette River. The proposed crossing would traverse a perennial stream.
and some associated wetlands. As shown in Figure 3-3, wetlands traverse the expansion site; therefore, it is unavoidable to construct a road through the site without impacting a small area of wetlands. To avoid wetlands to the extent possible, the roadway crossing is proposed in an area with existing culverts.

The VA has received concurrence on the boundaries of the mapped wetlands, ponds, and tributaries (as shown in Figure 3-3) from the Oregon Department of State Lands (ODSL) regarding Oregon’s Removal-Fill law (see Appendix A). The VA has also obtained a Nationwide permit from the USACE for the development of the crossing over the wetlands. The VA will obtain a 401 Water Quality Certification from the Oregon Department of Environmental Quality, as well as a state permit from the ODSL, which is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands, ponds, and tributaries. This permit would require mitigation steps to minimize impacts (see Section 3.7.4). The VA has proposed mitigation to the anticipated wetland impacts through a wetland mitigation bank. The crossing would impact less than 0.2 acres of wetlands, and the mitigation bank would reduce the temporal losses to the wetlands. Adherence to Section 404 of the Clean Water Act and Oregon’s Removal-Fill Law (ORS 196.795-990) permitting requirements and associated BMPs would further minimize adverse impacts on wetlands.

3.7.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, no changes in, or construction on, the adjoining parcel would occur. Therefore, no impacts on wetlands would occur.

3.7.4 Minimization/Management Measures

The expansion site is not located within a 100-year or 500-year flood zone; therefore, no minimization or management measures would be needed under the Preferred Alternative.

Wetland impacts under the Preferred Alternative would be greater than 50 cubic yards, and this would necessitate mitigation measures under Oregon’s Removal-Fill Law. The following steps would be taken:

- Adhere to the stipulations in the Nationwide permit from the U.S. Army Corps of Engineers and the 401 Water Quality Certification from the Oregon Department of Environmental Quality.
- Carry out the approved compensatory credits.

3.8 Wildlife and Habitat

3.8.1 Existing Conditions

3.8.1.1 Habitat

The original 269-acre cemetery property includes paved roadways and walkways, maintained landscape turf, and scattered deciduous and evergreen trees within the developed, landscaped areas. The undeveloped portions of the original cemetery property consist largely of undisturbed deciduous and evergreen forest vegetation, with riparian features located within these areas.

The expansion site is primarily composed of hayfields, with forested riparian areas located within the portions of the property under conservation easements. Vegetation in the hayfield portions of the property is dominated by grasses such as Kentucky bluegrass (Poa pratensis), orchard grass
(Dactylis glomerata), and smooth brome (Bromus inermis) (Balance Environmental, 2017). A few scattered trees are present in the hayfields; these consist of hazelnut (Corylus cornuta), Douglas fir (Pseudotsuga menziesii), mountain ash (Sorbus aucuparia), European hawthorn (Crataegus monogyna), and English holly (Ilex aquifolium) (VA, 2010b).

The presence of wetland-associated vegetation in the forested riparian areas of the expansion site is described in the wetlands survey summarized in Section 3.7. As described in Section 3.7, six wetlands are located in the expansion site, four of which are adjacent to riparian features (see Figure 3-3). One of the wetlands is associated with a man-made pond, two wetlands are associated with a perennial stream, and the fourth wetland is associated with an intermittent stream. Two wetlands are not directly associated with any riparian features. All of these wetlands are located within the area of the proposed expansion site that is protected by a conservation easement, except for a small portion of wetland W-5. The forested riparian areas of the property consist of a canopy cover of red alder (Alnus rubra) and western red cedar (Thuja plicata), with the herbaceous layer dominated by western sword fern (Polystichum munitum), Himalayan blackberry (Rubus armeniacus), youth-on-age (Tolmiea menziesii), and salmonberry (Rubus spectabilis) (Balance Environmental, 2017).

Both the existing cemetery and the proposed expansion site lie within the Willamette Valley Ecoregion, which commonly supports a variety of birds within Orders Anseriformes, Ciconiformes, Falconiformes, Gruiformes, Charadriiformes, Strigiformes, and Passeriformes that can be found in the field, forest, riparian, and wetland habitat types present at the site (Thorson, 2009). This includes species such as wood duck (Aix sponsa), mallard (Anas platyrhynchos), great blue heron (Ardea herodias), red-tailed hawk (Buteo jamaicensis), American coot (Fulica americana), spotted sandpiper (Actitis macularius), least sandpiper (Calidris minutilla), great-horned owl (Bubo virginianus), Steller's jay (Cyanocitta stelleri), American crow (Corvus brachyrhynchos), tree swallow (Tachycineta bicolor), red-winged blackbird (Agelaius phoeniceus), house finch (Haemorhous mexicanus), black-capped chickadee (Poecile atricapillus), and the winter wren (Troglodytes hiemalis) (Willamette Valley Birding Trail). Commonly found mammals include the grey fox (Urocyon cinereoargenteus), raccoon (Procyon lotor), western gray squirrel (Sciurus griseus), and the brush rabbit (Sylvilagus bachmani) (Oregon Department of Fish and Wildlife, n.d.). Reptiles common to the region include the western skink (Eumeces skiltonianus), rubber boa (Charina bottae), and the ringneck snake (Diadophis punctatus) (Oregon Department of Fish and Wildlife, n.d.). Common amphibians include the rough-skinned newt (Taricha granulosa), northern Pacific treefrog (Pseudacris regilla), and northern leopard frog (Rana pipiens) (Oregon Department of Fish and Wildlife, n.d.).

Wildlife species observed or reported to occur on the property include nutria (Myocastor coypus), Canada geese (Branta canadensis), bald eagle (Haliaeetus leucocephalus), black-tailed deer (Odocoileus hemionus), coyote (Canis latrans), raccoon (Procyon lotor), skunk (Family Mephitidae), and red-tailed hawk (Buteo jamaicensis) (VA, 2010b). Other species observed during the wetland delineation site visit on April 27–29, 2016, include the northern red-legged frog (Rana aurora aurora), a federal species of concern (see Table 3-3) (Balance Environmental, 2017).
3.8.1.2 Threatened and Endangered Species

The Endangered Species Act 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 implementation of the Endangered Species Act is the U.S. Fish and Wildlife Service (USFWS). The Endangered Species Act 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 designated critical habitat.

The Oregon Legislature passed an Endangered Species Act in 1987, which gave the Oregon Department of Agriculture (ODA) responsibility and jurisdiction over T&E plants, and affirmed the Oregon Department of Fish and Wildlife’s (ODFW) jurisdiction for T&E wildlife. The Oregon Parks and Recreation Department (OPRD) has a similar agreement with the USFWS for invertebrate species (ORBIC, 2013).

The Oregon Biodiversity Information Center (ORBIC) is affiliated with the Natural Heritage U.S. network. The ORBIC maintains extensive databases of Oregon biodiversity, with an emphasis on rare and threatened species (ORBIC, 2013). A rare species location data request was submitted to the ORBIC, and the data provided were reviewed to determine the presence of any state- or federally listed species within two miles of the proposed project site. The documents that were provided indicate the potential presence of several state- and federally listed plant and animal species of concern within the vicinity of the project site. These are included in Table 3-3.

A USFWS Information for Planning and Consultation (IPaC) Trust Resources Report was also generated and reviewed, followed by consultation with USFWS staff, to determine the potential presence of federally listed rare and T&E species (USFWS, 2017; USFWS, 2016a). Species that the USFWS indicated were potentially present have been included in Table 3-3.

The National Marine Fisheries Service (NMFS) was consulted regarding the potential presence of anadromous marine species at the project site. Species that the NMFS indicated were potentially present will be included in Table 3-3 once a response has been received.

In total, there are nine federally threatened listed species, three federally endangered listed species, and two federal trust species protected under the Bald and Golden Eagle Protection Act (BGEPA). None of the federally threatened or federally endangered species are likely to occur in the project area due to unsuitable habitat. The bald eagle has been observed flying over the project site; however, no nests are known to occur near the cemetery. There are also three state-endangered species and three state-threatened species. None of these species are likely to occur in the project area due to unsuitable habitat. Details regarding all the federal- and state-listed species are outlined in Table 3-3.
### Table 3-3. Federal- 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>Bradshaw’s desert-parsley</td>
<td><em>Lomatium bradshawii</em></td>
<td>FE</td>
<td>LE</td>
<td>Seasonally saturated or flooded prairies, adjacent to creeks and small rivers. Dense soils in the Wapato, Bashaw, and McAlpin series that result in a perched water table during winter and spring (USFWS, 2015a).</td>
<td>Unlikely; records indicate that this species is not found in Clackamas County (USFWS, 2015a). The soils present at the site (Cascade) are different from those preferred by this species (NRCS, 2014).</td>
</tr>
<tr>
<td>Kincaid’s lupine</td>
<td><em>Lupinus sulphureus kincaidii</em></td>
<td>FT</td>
<td>LT</td>
<td>Native upland prairie grasslands characterized by heavier soils and mesic to slightly xeric soil moisture levels (USFWS, 2015b).</td>
<td>Unlikely; the history of agricultural use of open fields on the project site has resulted in the loss of native grassland species, making it highly unlikely that this species is present (Balance Environmental, 2017). In addition, records indicate that this species is not found in Clackamas County (USFWS, 2015b).</td>
</tr>
<tr>
<td>Common Name</td>
<td>Scientific Name</td>
<td>Federal Status</td>
<td>State Status</td>
<td>Habitat</td>
<td>Potential for Occurrence in the Project Area</td>
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<tr>
<td>Nelson’s checker-mallow</td>
<td>Sidalcea nelsoniana</td>
<td>FT</td>
<td>None</td>
<td>Swales and meadows with wet depressions, or along streams. Occurs on soils in the Wapato, Bashaw, and McAlpin series. Primarily occurs in open areas with little to no shade (USFWS, 2015c).</td>
<td>Unlikely; records indicate that this species has been found near the project site; however, it typically occurs on soil types different from those present at the project site (NRCS, 2014; USFWS, 2016a). In addition, the historical use of the unforested portion of the property for agricultural production makes it highly unlikely that this species is present (Balance Environmental, 2017). This species typically occurs in meadows with wet depressions or along streams; if present, it would likely occur near wetland W-6 (USFWS, 2015c). Other streams and wetlands present on the property are most likely too shaded to support this species; dense reed canary grass (Phalaris arundinacea) at wetlands W-2 and W-3 have created an environment unsuitable for this species (Balance Environmental, 2016). All the areas where this species would most likely occur are protected by the conservation easement.</td>
</tr>
<tr>
<td>Water howellia</td>
<td>Howellia aquatilis</td>
<td>FT</td>
<td>LT</td>
<td>Shallow water (1–2 meters) along the edges of deep ponds partially surrounded by deciduous trees such as black cottonwood (Populus trichocarpa) and aspen (Populus spp.) (USFWS, n.d. a).</td>
<td>Unlikely; the dense reed canary grass surrounding the pond located near wetland W-2 makes it unlikely that this species is present (Balance Environmental, 2016).</td>
</tr>
</tbody>
</table>
**Common Name** | **Scientific Name** | **Federal Status** | **State Status** | **Habitat** | **Potential for Occurrence in the Project Area**
--- | --- | --- | --- | --- | ---
Willamette daisy | *Erigeron decumbens* | FE | LE | Alluvial soils in the Wapato, Bashaw, and McApin Series. Mainly bottomland locations, but one population is in upland prairie remnant (USFWS, 2015d). | Unlikely; the history of agricultural use of the open fields on the project site has resulted in the loss of native grassland species, making it highly unlikely that this species is present (Balance Environmental, 2017). In addition, the most recent record for this species where the project site is located is before 1990 (USFWS, 2015d).

**Fish**

<table>
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<tr>
<th>Common Name</th>
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<th>Habitat</th>
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</table>
| Steelhead trout | *Oncorhynchus mykiss* | FT | SV | Rivers, creeks, and streams with a dissolved oxygen concentration of at least 7 parts per million. Streams with gravel riffles required for spawning (NOAA Fisheries, 2016). | Unlikely to be in the project site due to low water flow and the presence of a silty substrate. This species occurs about one mile downstream of the project site (USFWS, n.d. b; Johnson Creek Watershed Council, 2017). Several tributaries on the project site flow into Johnson Creek, which is designated as critical habitat for this species (USFWS, 2017).
| Coho salmon | *Oncorhynchus kisutch* | FT | LE | Rivers, streams, and creeks. Spawning typically occurs in loose coarse gravel where water is 10–54 centimeters deep (NatureServe, 2016a). | Unlikely to be in the project site due to low water flow and the presence of a silty substrate. This species occurs about one mile downstream of the project site (Johnson Creek Watershed Council, 2017). Several tributaries on the project site flow into Johnson Creek, which is designated as critical habitat for this species.
| Chinook salmon | *Oncorhynchus tshawytscha* | FT | SC | Large streams and rivers with gravel bottoms (NatureServe, 2016b). | Unlikely to be in the project site due to low water flow and the presence of a silty substrate. Critical habitat for this species is designated downstream in the Willamette River (USFWS, 2017).
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<th>Common Name</th>
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<tbody>
<tr>
<td>Bull trout</td>
<td><em>Salvelinus confluentus</em></td>
<td>FT</td>
<td>SC</td>
<td>The bottom of deep pools in cold rivers and large tributary streams, typically in moderate to fast currents with water temperatures of 45–50 degrees Fahrenheit (NatureServe, 2016c).</td>
<td>Unlikely; this species potentially occurs downstream of the project site (USFWS, n.d. c). The bull trout was reintroduced to the Clackamas River and its tributaries, including the mainstem of the Willamette River, following the publication of a final rule on the matter in 2011. This population is considered nonessential experimental and imposes different regulatory requirements (USFWS, n.d. c).</td>
</tr>
<tr>
<td>Pacific lamprey</td>
<td><em>Entosphenus tridentatus</em></td>
<td>FC</td>
<td>SV</td>
<td>Anadromous, with spawning habitat needs similar to those of salmon: the upper reaches of cool-water, gravel-bottomed streams (USFWS, 2008).</td>
<td>Unlikely; this species potentially occurs downstream of the project site in Johnson Creek. This species was observed spawning in the Johnson Creek watershed in 2011 (ORBIC, 2016); however, the low flow of the tributary streams at the project site and the perched drainage culvert located on one of the tributary streams present at the project site indicate a low potential for the presence of this species (VA, 2010b).</td>
</tr>
<tr>
<td>Western pond turtle</td>
<td><em>Actinemys marmorata</em></td>
<td>FC</td>
<td>SSOC</td>
<td>Ponds, lakes, rivers, and streams. May lay eggs up to 50 meters from water’s edge. Turtles living in lakes or ponds may overwinter in those water bodies; those living in streams or rivers may overwinter on land up to 500 meters from water source (USFS, 2009b).</td>
<td>Potentially present; this species was seen dispersing (traveling overland) near the project site in 2001 (ORBIC, 2016).</td>
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<td>Common Name</td>
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<tr>
<td><strong>Amphibians</strong></td>
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<tr>
<td>Northern red-legged frog</td>
<td><em>Rana aurora aurora</em></td>
<td>FC</td>
<td>SV</td>
<td>Streams, marshes, ponds, and damp woods and meadows near these features (IUCN Amphibian Specialist Group, 2015).</td>
<td>Present; during the wetland delineation site visit conducted April 27–29, 2016, several northern red-legged frogs were observed at the project site (Balance Environmental, 2016). Also, a frog (<em>Rana</em> spp.) was seen at the stream during a 2009 visit. The observer thought that this was likely a northern red-legged frog (VA, 2010b). The streams, wetlands, and pond present within the conservation easement represent potential habitat for this species. ORBIC data indicates that this species has been seen within the Johnson Creek drainage in the past (ORBIC, 2016).</td>
</tr>
<tr>
<td>Oregon slender salamander</td>
<td><em>Batrachoseps wrighti</em></td>
<td>FC</td>
<td>SV</td>
<td>Mature or old-growth stands of moist Douglas fir and mixed maple, hemlock, and red cedar forests. Individuals of this species are typically found under rocks, under logs, under loose bark, and in crevices in the soil (Hammerson &amp; Bury, 2004).</td>
<td>Potentially present; this species was last seen near the project site during the 1980s. Data indicate the presence of this species in both Clackamas and Multnomah Counties and suggest that this species may be present in the Johnson Creek watershed (ORBIC, 2016).</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
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<tr>
<td>Bald eagle</td>
<td><em>Haliaeetus leucocephalus</em></td>
<td>BGEPA</td>
<td>SV</td>
<td>Nests in forested areas near large bodies of water. Often perches on tall, mature deciduous or coniferous trees that allow for an expansive view of the surroundings (Cornell Lab of Ornithology, 2015a).</td>
<td>Present; this species has been observed flying over the project site. Though no nests are known to occur near the cemetery, nesting habitat potentially occurs on the project site (VA, 2010b; USFWS, 2016a).</td>
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<tr>
<td>Common Name</td>
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<tr>
<td>Golden eagle</td>
<td><em>Aquila chrysaetos</em></td>
<td>BGEPA</td>
<td>None</td>
<td>Open and semi-open habitat, avoiding developed areas and solid forests. Nests on cliffs and other steep escarpments (Cornell Lab of Ornithology, 2015b).</td>
<td>Unlikely; based on the amount of development and forested habitat surrounding the project site, it is unlikely that this species occurs on the project site (Cornell Lab of Ornithology, 2015b; Oregon Eagle Foundation, Inc, 2012). This species occasionally occurs in the area, but there are no known nesting areas in Multnomah County (USFWS, 2016a).</td>
</tr>
<tr>
<td>Northern spotted owl</td>
<td><em>Strix occidentalis caurina</em></td>
<td>FT</td>
<td>LT</td>
<td>Mature old-growth forests (USFWS, 2011).</td>
<td>None; suitable habitat is not present for this species (USFWS, 2016a). The northern spotted owl uses old-growth forest habitat, which is not present at the project site (VA, 2010b). The scarcity of forest surrounding the project site also indicates that there is insufficient forested acreage present to support this species (USFWS, 2011).</td>
</tr>
<tr>
<td>Streaked horned lark</td>
<td><em>Eremophila alpestris strigata</em></td>
<td>FT</td>
<td>SC</td>
<td>Open areas and old agricultural fields. Wide-open areas with no trees and few or no shrubs. These can be native prairies, coastal dunes, agricultural fields, wetland mudflats, and pasture. The species is generally found in open areas 300 acres or more in size (USFWS, n.d. d).</td>
<td>Unlikely; suitable habitat is not present for this species (USFWS, 2016a). The habitat surrounding the project site does not provide the landscape context needed to support this species, which typically needs at least 300 acres of suitable habitat (flat, treeless areas such as native prairies, coastal dunes, fallow and active agricultural fields, wetland mudflats, and pasture) (USFWS, n.d. d).</td>
</tr>
</tbody>
</table>
## Insects

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Federal Status</th>
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<th>Habitat</th>
<th>Potential for Occurrence in the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fender’s blue butterfly</td>
<td><em>Icaricia icarioides fenderi</em></td>
<td>FE</td>
<td>None</td>
<td>Native upland prairies dominated by red fescue (<em>Festuca rubra</em>) and/or Idaho fescue (<em>F. idahoensis</em>). Only three lupine species are used as larval food plants: Kincaid’s lupine (<em>Lupinus sulphureus kincaidi</em>), sickle-keeled lupine (<em>L. albicaulis</em>), and spur lupine (<em>L. arbustus</em>) (USFWS, n.d. e).</td>
<td>Unlikely; suitable habitat is not present for this species (USFWS, 2016a). None of the plant species this butterfly requires were noted in the field during surveys (Balance Environmental, 2017). The history of the site’s use as an agricultural field likely precludes the presence of vegetation capable of supporting this species.</td>
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## Annelids

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<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>Oregon giant earthworm</td>
<td><em>Driloleirus macelfreshi</em></td>
<td>FC</td>
<td>None</td>
<td>Forested regions of Oregon’s Coastal Range and Willamette Valley. Forest stands composed of Douglas fir (<em>Pseudotsuga menziesii</em>), bigleaf maple (<em>Acer macrophyllum</em>), Oregon white oak (<em>Quercus garryana</em>), red alder (<em>Alnus rubra</em>), and Oregon ash (<em>Fraxinus latifolia</em>) (USFS, 2005). This species is typically found in somewhat poorly drained sites, in the silt loam surface layer of soils in the Cascade series (ORBIC, 2016).</td>
<td>Potentially present; this species was last seen near the project site in 1958 but is typically found in the Cascade soil series, which are present on the project site (ORBIC, 2016; NRCS, 2014; USFS, 2005). The protected riparian portion of the project site meets several habitat requirements for this species, and ORBIC data indicate that this species may be present in the Johnson Creek Watershed (ORBIC, 2016).</td>
</tr>
</tbody>
</table>

### Notes:

- FT = federally threatened; FE = federally endangered; FC = federal species of concern; LE = state endangered; LT = state threatened; SV = state vulnerable; SSOC = state species of concern; SC = state critical; BGEPA = Bald and Golden Eagle Protection Act

### Sources for species status:

- (USFWS, 2017)
- (ORBIC, 2013)
- (ORBIC, 2016)
3.8.1.3 Migratory Birds

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

An IPaC Trust Resources Report obtained from the USFWS for the project site notes the potential presence of a number of migratory bird species including Brewer’s sparrow (Spizella breweri), calliope hummingbird (Stellula calliope), fox sparrow (Passerella iliaca), loggerhead shrike (Lanius ludovicianus), olive-sided flycatcher (Contopus cooperi), peregrine falcon (Falco peregrinus), purple finch (Carpodacus purpureus), rufous hummingbird (Selasphorus rufus), short-eared owl (Asio flammeus), vesper sparrow (Poecetes gramineus ssp. affinis), western grebe (Aechmophorus occidentalis), and the willow flycatcher (Empidonax traillii) (USFWS, 2017).

Bald eagles (Haliaeetus leucocephalus) and golden eagles (Aquila chrysaetos) both receive additional protection under the BGEPA. The BGEPA prohibits the taking, possession, or commerce of these bird species. Potential foraging habitat exists within the project area for both species. Bald eagles have been seen flying over the original cemetery property, but no nest sites have been located on either the original or expansion sites (VA, 2010b). The USFWS has noted, however, that there is the potential for bald eagles to potentially nest in the project area (USFWS, 2016a). Although there is the potential for golden eagles to use the project site for foraging, this is highly unlikely given the species’ avoidance of areas with a high level of development and contiguous forest. It is also highly unlikely that there are any golden eagle nesting sites within the vicinity of the project site, because they prefer to nest on cliffs and other high escarpments (Oregon Eagle Foundation, Inc, 2012). The USFWS notes that golden eagles only occasionally occur in the project area, and there are no known nesting areas in Multnomah County (USFWS, 2016a). No known bald eagle nests or roost sites exist within two miles of the project site. High-resolution species occurrence data were not provided by the ORBIC for the golden eagle, because this species is not considered rare, threatened, or endangered by the State of Oregon (ORBIC, 2016).

3.8.2 Environmental Consequences of the Preferred Alternative

Improvements to the original National Cemetery property under the Preferred Alternative would have negligible, adverse impacts on wildlife and habitat. There are no candidate, threatened, or endangered species documented at this site. Steelhead trout and coho salmon are, however, present roughly one mile downstream from the project site in Johnson Creek, where critical habitat has been identified for both species (Johnson Creek Watershed Council, 2017; USFWS, 2017). There is the potential for soil erosion to occur with some of the proposed activities, in particular, the surface drainage improvement and spoils storage site work (VA, 2016). The management measures described in Section 3.5.4 would reduce the potential for this erosion to occur and would prevent most stormwater runoff from reaching the streams present in the undeveloped forested portions of the property.

Implementation of the Preferred Alternative would result in minor, short-term, adverse impacts and no long-term, adverse impacts on wildlife and habitat. There are two documented listed species at the expansion site: the northern red-legged frog and the bald eagle (see Table 3-3) (VA, 2010b; Balance Environmental, 2016). The Preferred Alternative would not result in substantial changes to topography or drainage. The Preferred Alternative would include site development that is complementary to the area’s existing natural features, to be designed in
coordinated with the natural topography, drainage patterns, native species, and associated habitat.

There is the potential for displacement of common wildlife that may inhabit or use portions of the original cemetery and expansion site for nesting, foraging, or temporary cover. If initial clearing of the undisturbed areas of the property were to occur during the bird breeding season (typically April through July), there could be impacts on nesting migratory bird species that are protected under the MBTA. This could be minimized by following the measures identified in Section 3.8.4.

The nearby Willamette and Columbia Rivers represent suitable foraging habitat for bald eagles, indicating the potential for the species to pass over the project site while foraging. Active use of the project site has been confirmed by staff working at the cemetery who have reported seeing bald eagles flying overhead (VA, 2010b). Bald eagles may also use the site for perching or nesting if suitable large trees are present; the USFWS has noted the potential for the project site to serve as nesting habitat for the bald eagles (USFWS, 2016a). Since site impacts associated with the Preferred Alternative would largely be confined to the open hayfield portion of the property, the potential for impacts on this species is negligible.

There is a species occurrence record for Nelson’s checker-mallow near the project site (USFWS, 2016a); however, it is unlikely that this species is present at the project site. This plant typically grows in soils from the Wapato, Bashaw, and McAlpin series (USFWS, 2015c); only soils from the Cascade series are present at the project site (NRCS, 2014). In addition, the historical use of the unforested portion of the property for agricultural production makes it highly unlikely that this species is present. This species was not observed during site visits conducted for the 2010 EA (VA, 2010b). This species typically occurs in meadows with wet depressions or along streams, and if present, would most likely occur near wetland W-6. Other streams and wetlands present on the property are most likely too shaded to support this species; dense reed canary grass (Phalaris arundinacea) at wetlands W-2 and W-3 have created an environment unsuitable for this species (Balance Environmental, 2016). All the areas where this species would most likely occur are protected by the conservation easement.

Other species that are potentially present on the project site due to occurrence records or life history traits include northern red-legged frog, western pond turtle, Oregon slender salamander, and the Oregon giant earthworm. Activities associated with the Preferred Alternative would have some potential for impacts on these species. The development of a road through the conservation easement and the construction of a bridge could result in temporary or permanent conversion of forest, riparian, wetland, and open water habitat. The Preferred Alternative would limit wetlands disturbance to less than 5,000 square feet. Clearing vegetation, grading the site, and constructing buildings and roads could also result in adverse impacts (VA, 2016). These activities have the potential to cause soil erosion that could affect the riparian and wetland habitats of the northern red-legged frog and the western pond turtle. Following standard BMPs to prevent such erosion and associated runoff would minimize these impacts. The following paragraphs discuss these species in greater detail.

The northern red-legged frog has been observed in the forested riparian portion of the project site, which is protected by a conservation easement (Balance Environmental, 2016). This species is typically confined to wetland and riparian locations, though it may be found up to 26 meters from its preferred habitat during the rainy season (IUCN Amphibian Specialist Group, 2015). Given that the Preferred Alternative would have an impact on a small portion of wetlands, it is possible that the northern red-legged frog could be present and may be affected. However, since
the northern red-legged frog’s preferred habitat and the 26-meter buffer for this habitat are contained within the protected easement area, the potential for impacts on this species is low.

Western pond turtles may be present in the tributary streams or pond located within the portion of the property protected by the conservation easement. Because most of the impacts associated with the Preferred Alternative would be confined to the areas of the project site that have been historically associated with agriculture, impacts on this species would be minimal. Individuals of this species that live in ponds typically winter in those bodies of water, whereas individuals that use streams and rivers for most of the year tend to winter on land and may do so up to 500 meters from water. It should be noted, however, that the western pond turtle has been found to avoid wintering in areas with dense grass cover that is similar to the vegetation in the project site where most of the impacts from the Preferred Alternative would occur (USFS, 2009a). Turtles typically move to wintering sites between September and November and return to ponds and streams between March and June (USFS, 2009b).

The Oregon slender salamander may be present in the forested portion of the property that is largely protected by a conservation easement. This species is typically found in mature or old-growth stands of Douglas fir and mixed maple, hemlock, or red cedar forests (Hammerson & Bury, 2004). Douglas fir has been documented at the project site previously (VA, 2010b). Most of the impacts associated with the Preferred Alternative would be confined to the agricultural fields where this species is not likely to occur; therefore, the potential for impacts on this species is low.

The Oregon giant earthworm may be present in the forested portion of the project site. There is very limited data on this species, but it has historically been found in forested sites with deep and undisturbed soils. There is little potential for impacts on this species to result from implementing the Preferred Alternative because this species, if present, is likely confined to the forested portion of the site, and the greatest potential for impacts would be in the portion of the property that historically supported agriculture. In addition, it has been noted that surveying for this species is particularly difficult because it may be able to move rapidly underground through permanent burrows when it senses vibrations associated with digging (USFS, 2005). Because of this characteristic, even if this species is present, direct mortality would likely be avoided due to the species’ response to the vibrations associated with the operation of heavy equipment. In the forested portion of the property, potential impacts would be limited to areas slated for the construction of a roadway.

Steelhead trout, coho salmon, Chinook salmon, bull trout, and Pacific lamprey are not likely to be present on the project site due to low water flow and the presence of a silty substrate. In addition, access to streams on the southern parcel is likely blocked due to the presence of a perched drainage culvert that flows into a pond on the northern portion of this parcel (VA, 2010b). Steelhead trout and coho salmon are, however, present roughly one mile downstream from the project site in Johnson Creek, where critical habitat has been identified for both species (Johnson Creek Watershed Council, 2017; USFWS, 2017). Chinook salmon and bull trout potentially occur in Johnson Creek, because critical habitat is designated downstream in the Willamette River for the Chinook salmon, and a nonessential experimental population of bull trout was reintroduced to the Willamette River (USFWS, 2017; USFWS, n.d. c). The Pacific lamprey potentially occurs downstream of the project site in Johnson Creek. This species was observed spawning in the Johnson Creek watershed in 2011 (ORBIC, 2016). It is unlikely that the Preferred Alternative would affect any of these species, because they are present or potentially present only far downstream from the project site. There is some potential for soil erosion and subsequent siltation of the streams that are located on the property, which could result in minimal degradation of
habitat in Johnson Creek. The potential for this to occur would be greatest during the construction phase of the Preferred Alternative; however, following recommended BMPs to minimize soil disturbance would help to reduce impacts. Forested stream buffers within the conservation easement area would also help to prevent potential runoff from reaching the tributary streams located on the project site. Therefore, under the Preferred Alternative minor, indirect impacts are expected on these fish species.

The Preferred Alternative would have no significant impacts on any listed species.

3.8.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, there would be no expansion of the National Cemetery at the proposed project site and there would be no change in the current operations at the original National Cemetery site. Therefore, no impacts on wildlife or habitat would occur.

3.8.4 Minimization/Management Measures

There is no requirement for specific minimization measures since the Preferred Alternative would not result in significant impacts on wildlife or habitat. However, if the Preferred Alternative were implemented, BMPs would be employed to minimize potential impacts, as outlined below.

As noted in Section 3.5.4, BMPs for soils, spoils material, and stormwater management would minimize impacts on wetland, riparian, and stream habitats associated with sedimentation and stormwater discharge.

To avoid impacts on nesting migratory song birds, construction personnel would walk through the site immediately before clearing an area to search for nests that could be affected. If a nest was discovered within areas where site disturbance was about to occur, nest protection practices would be established in consultation with VA CFM environmental staff on a case-by-case basis.

Prior to disturbance, the area would be checked to verify that a bald eagle nest is not present. Coordination with the USFWS will occur prior to construction activities on the project site if a bald eagle nest is found on, or very close to, the site to avoid any potential impacts (USFWS, 2016a).

Under the Preferred Alternative, invasive plant species present on the undeveloped portions of the new parcels would be removed, and these areas would be restored with native plant species (VA, 2016).

3.9 Noise

3.9.1 Existing Conditions

Willamette National Cemetery is in a quiet, suburban setting with low-to-medium density residential uses, open space, and a cemetery adjacent to the site. Sensitive noise receptors near the site include the following:

- **Cemeteries:** The Lincoln Memorial Park Cemetery and Funeral Home is located directly east of the original National Cemetery across SE Mount Scott Boulevard.

- **Schools:** The nearest school to the expansion site is Alice Ott Middle School, located approximately 1.3 miles north. Kelly Elementary School is located approximately 1.5 miles northwest of the expansion site.
• Churches: The two churches nearest to the original National Cemetery are the Mount Scott Church of God, located approximately 0.5 miles northwest, and Portland Pentecostals Church, located approximately 1 mile west.

• Libraries: The nearest library to the expansion site is Happy Valley Library, located approximately 3 miles south.

• Hospitals: The nearest hospital to the expansion site is the Kaiser Sunnyside Medical Center, located approximately 2 miles southwest.

• Parks: The nearest public parks to the expansion site are Altamont Park (approximately 1 mile west of the site), Rebstock Park (approximately 1 mile south), Happy Valley Park (approximately 1 mile southeast), and Eastridge City Park (approximately 1 mile east).

The closest potentially sensitive noise receptors are the residential areas adjacent to the expansion site. Several low-to-medium density neighborhoods are located immediately north and south of the original cemetery. These residences are buffered from the National Cemetery with dense tree cover, which provides vegetative buffers ranging from approximately 300 to 1,800 feet. The expansion site is adjacent to several private residences to the south and east. Land uses across SE 132nd Avenue from the expansion site are also predominately residential.

Noise sources in the area include vehicular traffic on SE Mount Scott Boulevard, SE 132nd Avenue, and within the cemetery property. At the original National Cemetery, routine maintenance, including the use of lawnmowers and leaf blowers, and periodic construction activities can create noise. During committals, ceremonial rifle salutes create short bursts of noise that are audible in the immediate surroundings. Based on U.S. Army estimates for A-weighted Sound Exposure Levels (ASEL) for M-16 rifle blanks at 400 to 800 meters away, nearby residences could experience single-event intermittent noise between 49 decibels (dBA) and 41 dBA (VA 2013). As a point of reference, 60 dBA is the measured loudness of normal conversation, and a standard telephone dial tone is measured at approximately 80 dBA. These sound levels do not account for the noise-baffling effects of trees and vegetation, which are present at Willamette National Cemetery; therefore, sound levels from the committal ceremonies would likely be lower. Table 3-4 shows the estimated noise levels from M-16 rifle blanks at various distances. These salutes occur only during weekday business hours, and at designated committal shelters. Overall, noise levels are typical of a quiet, suburban residential neighborhood and consistent with a cemetery setting.

### Table 3-4. 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>
3.9.2 Environmental Consequences of the Preferred Alternative

Construction activities associated with the Preferred Alternative would result in minor, short-term, adverse impacts. Construction-related noise would vary throughout the process and depend on the type and number of equipment and tools as well as operating schedules. Construction activities would be typical of projects of this scale and would include transport, site preparation, excavation, placement of foundations, and paving. The greatest source of noise would be construction equipment with internal combustion engines, including, but not limited to, backhoes, graders, front-end loaders, bulldozers, trucks, and forklifts.

Peak noise exposure for adjacent receptors would depend on topography, vegetation, and weather conditions. Peak noise exposure would be intermittent as equipment would not be operated continuously throughout the construction cycle. Overall, noise levels of approximately 108 dBA could occur during active construction, diminishing with distance from the site.

Following construction and site improvements associated with the Preferred Alternative, operations and routine maintenance activities at the site would return to a similar baseline to such activities at the original National Cemetery. However, such activities would also occur on the expansion site, exposing previously unaffected residences to routine noise sources from special events, worker vehicles, visitor traffic, and maintenance equipment (e.g., lawn mowers and leaf blowers). These noise increases, although long-term, would be considered negligible in the context of current sources of noise in the area.

No new committal shelters would be constructed under the Preferred Alternative. Therefore, noises associated with rifle salutes would occur at a similar frequency and level to current memorial services at the site.

The Preferred Alternative would have no significant impacts on the noise environment.

Table 3-5

Table 3-5 shows the peak noise levels associated with various pieces of construction equipment that could be used during proposed activities. As points of comparison, the hum of a refrigerator averages 40 dBA, normal conversation averages 60 dBA, gas-powered lawnmowers average 90 dBA, and a loud entertainment venue averages 104 to 110 dBA (Centers for Disease Control and Prevention, 2016).

The use of several loud pieces of construction equipment could result in temporary peak noise levels exceeding 90 dBA up to 200 feet from the construction area, depending on the specific pieces of equipment being operated. However, these conditions are expected to be infrequent during the construction period. The intermittent and infrequent nature of such circumstances would be unlikely to create more than a temporary nuisance for those in the vicinity.

Other sources of noise during construction would include workers commuting to and from the site and transport of construction materials. Increases in local traffic would result in a commensurate but minor increase in noise levels immediately before, during, and immediately after work hours. Therefore, surrounding residents may experience temporary increases in noise exposure during daytime work hours. Due to the temporary and intermittent nature of these impacts, they would not be considered significant as compared to existing noise levels in the area.
Following construction and site improvements associated with the Preferred Alternative, operations and routine maintenance activities at the site would return to a similar baseline to such activities at the original National Cemetery. However, such activities would also occur on the expansion site, exposing previously unaffected residences to routine noise sources from special events, worker vehicles, visitor traffic, and maintenance equipment (e.g., lawn mowers and leaf blowers). These noise increases, although long-term, would be considered negligible in the context of current sources of noise in the area.

No new committal shelters would be constructed under the Preferred Alternative. Therefore, noises associated with rifle salutes would occur at a similar frequency and level to current memorial services at the site.

The Preferred Alternative would have no significant impacts on the noise environment.

### Table 3-5. Peak Noise Levels Expected from Typical Construction Equipment, as Measured from the Source

<table>
<thead>
<tr>
<th>Source</th>
<th>0 feet</th>
<th>50 feet</th>
<th>100 feet</th>
<th>200 feet</th>
<th>400 feet</th>
<th>1,000 feet</th>
<th>1,700 feet</th>
<th>2,500 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dump Truck</td>
<td>108</td>
<td>88</td>
<td>82</td>
<td>76</td>
<td>70</td>
<td>62</td>
<td>58</td>
<td>54</td>
</tr>
<tr>
<td>Concrete Mixer</td>
<td>108</td>
<td>85</td>
<td>79</td>
<td>73</td>
<td>67</td>
<td>59</td>
<td>55</td>
<td>51</td>
</tr>
<tr>
<td>Jack-hammer</td>
<td>108</td>
<td>88</td>
<td>82</td>
<td>76</td>
<td>70</td>
<td>62</td>
<td>58</td>
<td>54</td>
</tr>
<tr>
<td>Generator</td>
<td>96</td>
<td>76</td>
<td>70</td>
<td>64</td>
<td>58</td>
<td>50</td>
<td>46</td>
<td>42</td>
</tr>
<tr>
<td>Crane</td>
<td>104</td>
<td>75–88</td>
<td>69–82</td>
<td>63–76</td>
<td>55–70</td>
<td>49–62</td>
<td>45–48</td>
<td>41–54</td>
</tr>
<tr>
<td>Pile Driver</td>
<td>105</td>
<td>95</td>
<td>89</td>
<td>83</td>
<td>77</td>
<td>69</td>
<td>65</td>
<td>61</td>
</tr>
<tr>
<td>Forklift</td>
<td>100</td>
<td>95</td>
<td>89</td>
<td>83</td>
<td>77</td>
<td>69</td>
<td>65</td>
<td>61</td>
</tr>
</tbody>
</table>

Note: Peak noise levels are in A-weighted decibels (dBA), attenuated.  
Source: Tipler 1976.

### 3.9.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, cemetery expansion and improvements would not occur, and no additional noise impacts would result. Gravesite development and ceremonial rifle salutes would continue until current cemetery capacity is reached, after which routine maintenance activities would continue.
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 always.
- 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.
- Conduct construction activities with a sensitivity toward maintaining the dignity and solemnity of the National Cemetery environment during interment services.
- Encourage operators to use equipment in a manner that is mindful of the sensitivities of nearby residents and visitors to the cemetery.

3.10 Transportation and Parking

3.10.1 Existing Conditions

Willamette National Cemetery is in a suburban, predominantly residential area. The primary public entrance to the original National Cemetery is a gated entrance along SE Mount Scott Boulevard near the northwestern corner of the property. This gate provides access for visitors and workers. Two additional gated entrances along SE Mount Scott Boulevard provide employee access.

The 38-acre expansion site is currently undeveloped. There are two dirt and gravel cart paths that span the two conservation easement areas. These paths are coterminous with the rights-of-way described in the deed of conversation (City of Portland, 2011). Access to the property boundary is possible from the east along the boundary with SE 132nd Avenue.

There is ample parking for visitors and cemetery employees internal to the original National Cemetery under current operational demands.

3.10.2 Environmental Consequences of the Preferred Alternative

Under the Preferred Alternative, the expansion site would be accessed via expansion of the internal road network at the original National Cemetery as well as via a secondary gated entrance on SE 132nd Avenue at the intersection with SE Lucille Street. A potential minimal increase in traffic along SE Mount Scott Boulevard and SE 132nd Avenue would be expected in the short term due to construction. An increase in the number of vehicles (trucks, construction vehicles, and personal vehicles) would occur. Construction-related activities could be scheduled to avoid local impacts during peak travel times. The installation and connection of utilities, located within, or adjacent to, local roadways, could also affect local roadways and traffic. These impacts would be expected to be minor, temporary, and staggered during the construction activities.
Operation of the expanded cemetery under the Preferred Alternative would be expected to result in a negligible, long-term increase in traffic on neighboring roads from increased visitation.

The rate of interments and other special events is not expected to increase from current conditions; therefore, increases in traffic associated with interments and committals would be expected to be negligible.

The Preferred Alternative would have no significant impacts on transportation.

On-street parking within the expanded cemetery would accommodate visitors, and new parking would be added near the new and upgraded administration and maintenance buildings to accommodate staff. As such, no impacts on parking would be expected.

3.10.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, cemetery expansion would not occur, and no parking impacts would result. As cemetery interments are reduced and eventually end once the cemetery has reached capacity, traffic to and from the cemetery would decrease, resulting in a slight but beneficial impact on the local transportation network.

3.10.4 Minimization/Management Measures

Short-term transportation impacts associated with construction activities could be minimized with the following management measures, if necessary:

- Schedule construction activities such that traffic increases do not coincide with typical morning and evening periods of increased traffic.
- Route construction equipment to minimize impacts on neighboring communities.

3.11 Utilities

3.11.1 Existing Conditions

Portland General Electric provides utilities to Willamette National Cemetery. Energy consumption at the cemetery is associated with the administration and maintenance complexes, with additional minimal usage for lighting at the three committal shelters. The administration and maintenance complexes and the public information center are heated by natural gas supplied by Northwest Natural Gas. Northwest Natural Gas operates two liquefied natural gas storage facilities. One liquefied natural gas storage facility can supply up to 1.2 million therms of natural gas per day (Northwest Natural Gas, 2017).

The Portland Water Bureau provides water service to the National Cemetery. The administration and maintenance complexes are connected to the city’s potable water system. Portland’s primary drinking water source is the Bull Run Watershed, which is in Mount Hood National Forest. Water from the Bull Run Watershed is stored at two reservoirs with a capacity of more than 200 million gallons per day. Portland’s secondary drinking water source is the Columbia South Shore Well Field. The Columbia South Shore Well Field is utilized to supplement the Bull Run Watershed during turbidity events, emergencies, routine maintenance, and as an additional water supply during summer months. The Columbia South Shore Well Field obtains water from 26 groundwater wells located in three different aquifers: the Blue Lake Aquifer, the Troutdale Sandstone Aquifer, and the Sand and Gravel Aquifer. The Columbia South Shore Well Field has a capacity of 95 million gallons per day. When necessary, the Columbia South Shore Well Field has the
capacity to serve as the sole source of water to meet the daily demand of users. The National Cemetery also maintains two 100-gallon deep-water wells for irrigation purposes (Portland Water Bureau, 2016; Portland Water Bureau, 2017).

The Portland Environmental Services Bureau provides wastewater services to the National Cemetery. Wastewater is primarily treated at the Columbia Boulevard wastewater treatment plant. The Columbia Boulevard wastewater treatment plant has the capacity to treat approximately 70 million gallons to 275 million gallons of wastewater per day. Treated water is discharged to the Columbia River at a rate of approximately 50,000 gallons per minute. Additional wastewater treatment is provided by the Tryon Creek wastewater treatment plant. The Tryon Creek wastewater treatment plant has the capacity to treat an average daily flow of 8.3 million gallons per day and peak flows of up to 37.5 million gallons per day (City of Portland Environmental Services, 2017).

Telecommunications is provided to the cemetery by Quest Communications.

3.11.2 Environmental Consequences of the Preferred Alternative

The proposed activities would require extending utility services to the expansion site to potentially include electrical power, sanitary sewer, potable water, storm sewer, and natural gas. These utilities are at the original National Cemetery and service the residential neighborhoods surrounding the expansion site. Therefore, extension of utilities could require new easements and service agreements to extend utilities from adjacent properties.

Utility usage at the expansion site would be insignificant relative to regional and local utility usage and would not have adverse impacts on utilities providers. The Preferred Alternative would have no significant impacts on utilities.

3.11.3 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, no cemetery improvements or expansion would occur, resulting in no impact on utilities.

3.11.4 Minimization/Management Measures

No specific minimization or management measures are required for utilities because impacts on regional utilities would be negligible.

3.12 Cumulative Impacts

CEQ NEPA implementing regulations define a cumulative impact as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

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. This SEA considers past, present, and reasonable foreseeable short-term and long-term future effects from implementing the Preferred Alternative and other projects that coincide with the location and timetable of the Preferred Alternative.
3.12.1 Considered Cumulative Actions

As described in Chapters 2 and 3, the Preferred Alternative would retain many of the current features of the site, while preserving natural resources and open space within the conservation easement areas. The improvements of the cemetery would, per NCA design standards, retain a parklike setting on the site.

As the cities of Portland and Happy Valley, and Multnomah and Clackamas Counties, have experienced recent growth, land development is also increasing. The city of Portland is expected to add approximately 260,000 new residents and 140,000 new jobs within the next 20 years (City of Portland, 2016). However, much of the future development of Portland is expected to occur around the city center. The city has planned water, sewer, and utility projects that will occur city-wide, but the Preferred Alternative would be considered minor compared with city-wide projects, and cumulative impacts would be negligible when considered on a city-wide scale. Some small-scale residential development projects are planned within the city of Happy Valley near the Preferred Alternative (City of Happy Valley). The expansion site and improvements to the National Cemetery in the region would not significantly contribute to, or increase, any of the aesthetic, land use, socioeconomic, or other resource effects potentially associated with the growth of the cities of Portland or Happy Valley, or the counties of Multnomah and Clackamas.

3.12.2 Environmental Consequences of Cumulative Actions under the Preferred Alternative

The Preferred Alternative would result in the effects identified in Chapter 3 of this SEA. These include potential negligible-to-minor, adverse effects on aesthetics (short-term); air quality (short- and long-term); cultural resources (long-term); geology, topography, and soils (short- and long-term); hydrology and water quality (short-term); floodplains and wetlands (short- and long-term); wildlife and habitat (long-term); noise (short-term); and transportation (short-term). These potential 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 summarized in Chapter 5. No adverse effects on socioeconomics, community services, solid and hazardous waste, utilities, or environmental justice would occur. As such, no cumulative adverse effects on any of these resource areas are anticipated.

Given the location of the Preferred Alternative adjacent to the current cemetery property boundary and its nature as a simple 10-year extension of current cemetery operations, no significant cumulative adverse impacts on any resources are anticipated. Improvement and expansion of the National Cemetery in this area would not result in a substantial loss of agricultural lands or a change in the quiet, suburban nature of the surrounding community. The appearance of the National Cemetery as a parklike National Shrine with buildings constructed in concert with vernacular architecture would integrate the cemetery expansion into the surrounding area.

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 air quality during construction phases. Increased development near the site would result in commensurate increases in ambient noise, traffic, and air emissions. Given that no large-scale projects are anticipated in the immediate vicinity of the Preferred Alternative, cumulative impacts would not be significant.
The VA has constructed and operated similar National Cemeteries without generating significant adverse cumulative impacts. The VA’s adherence to BMPs during construction and operation would ensure that any potential adverse impacts are maintained at less-than-significant levels. Furthermore, although operation of a National Cemetery requires changes to several aspects of the environment, the overall action is generally low-intensity. Accordingly, no significant, adverse, cumulative impacts are anticipated from the improvements of Willamette National Cemetery.

3.12.3 Environmental Consequences of Cumulative Actions under the No Action Alternative

Under the No Action Alternative, the improvements at Willamette National Cemetery would not occur, and VA would not have the ability to continue meeting veterans' burial needs in the region. Burial sites at the original cemetery would be exhausted within five years; this would require veterans to find other burial options and drive farther to other cemetery locations. Under the No Action Alternative, there would not be any significant impacts on the resources; therefore, there would be no cumulative impacts under the No Action Alternative.

3.13 Potential for Generating Substantial Public Controversy

As discussed in Section 4.1, the VA solicited input from various federal, state, and local government agencies regarding the Proposed Action.

The VA held a public scoping public meeting, as announced in the *Clackamas Review* and *Oregon City News*, on February 21, 2018 from 6:00-7:30 PM at the Multnomah Public Library Midland, located at 805 SE 112nd Ave, Portland, OR 97233 (see Section 4.2 for more information). There were no attendees at the meeting. The Draft SEA was available for a 30-day public comment period, beginning February 21, 2018. Copies of the Draft SEA were made available for public review on the VA website (http://www.cem.va.gov/EA.asp). No public comments were received during this period.

Based on effects of the Preferred Alternative, there appears to be little potential for generating public controversy. Since the planned development of the site would be similar to existing surrounding land uses, and considering the findings of this Draft SEA (i.e., no significant impacts), it is not anticipated that there would be substantial public controversy regarding the Preferred Alternative. The No Action Alternative may result in a controversy concerning veterans' desire for interment in a veteran’s cemetery. Taking no action would result in limited burials at Willamette National Cemetery, 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 Agency and Tribal Coordination

During development and review of the SEA for expansion and improvements at Willamette National Cemetery, the NCA contacted federal, state, and local agencies with oversight responsibilities related to this project. Table 4-1 lists the coordination and consultation activities conducted, and responses received to date in support of this SEA. In addition to the agencies listed in the table, the following agencies were also contacted: National Marine Fisheries Service Oregon & Washington Coastal Office; The Confederated Tribe of Grand Ronde Community of Oregon; Confederated Tribes of the Warm Springs Reservation of Oregon; and Confederated Tribes of Siletz Indians of Oregon.

**Table 4-1. Agency and Tribal Coordination for Willamette National Cemetery Expansion and Improvements**

<table>
<thead>
<tr>
<th>Entity</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Fish and Wildlife Service</td>
<td>Notified the VA that the NMFS is the lead agency for listed marine species, and to contact NMFS directly for species under their jurisdiction. The Service agreed that for several species the VA likely does not need to analyze impacts as suitable habitat is not present. Bull trout could possibly occur downstream and therefore should be analyzed.</td>
</tr>
<tr>
<td>U.S. Department of Agriculture Natural Resources Conservation Service</td>
<td>Provided input to the Farmland Conversion Impact Rating, showing that only 0.01 percent of the farmland soils in the affected county would be affected by the Preferred Alternative.</td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers Portland District, Regulatory Branch</td>
<td>The project is authorized by a Nationwide Permit No. 14 provided that a 401 Water Quality Certification is obtained by the Oregon Department of Environmental Quality and is submitted to the USACE Portland District office.</td>
</tr>
<tr>
<td>Oregon Department of State Lands</td>
<td>The Department of State Lands reviewed the wetland delineation report for the site, and concurs with the wetland and waterway boundaries mapped in a figure they provided. The VA will obtain a wetland permit.</td>
</tr>
<tr>
<td>Oregon Department of Environmental Quality</td>
<td>The VA will obtain a 401 Water Quality Certification from the Oregon DEQ.</td>
</tr>
</tbody>
</table>
A full list of all agencies and individuals coordinated with during the preparation of this SEA can be found in Section 9. Copies of all correspondence, as well as comments and responses received, can be found in Appendix A.

4.2 Public Involvement

As stated in the VA’s NEPA Interim Guidance for Projects (VA, 2010a), public involvement for an EA may include public engagement during scoping, drafting, and finalizing the SEA through NOAs or public meetings. The public involvement process for this SEA has consisted of a public scoping meeting, publication of an NOA of the Draft SEA, and a 30-day public comment period on the Draft SEA. Future public involvement will include consideration of the public comments in the Final SEA, and publication of an NOA for the Final SEA.

4.2.1 Public Scoping Process

Scoping is an early and open process for determining the scope of issues to be addressed in a NEPA document, and for identifying significant issues related for a proposed action (40 CFR 1501.7). During the SEA process, the VA is holding a public scoping meeting on February 21, 2018 from 6:00-7:30 PM at the Multnomah Public Library Midland to discuss and receive input concerning the Preferred Alternative. Information on the scoping process and options for submitting scoping comments on the Preferred Alternative was provided during the meeting. The public scoping meeting was announced in the Clackamas Review and Oregon City News. There were no attendees at the public scoping meeting, and no public comments were received.

4.2.2 Public Review of Draft Environmental Assessment

The VA, as the federal proponent of this Proposed Action, is publishing and distributing the Draft SEA for a 30-day public comment period, which began on February 21, 2018. Review copies were made available for public review on the VA website (http://www.cem.va.gov/EA.asp). No public comments were received on the Draft SEA.
5 MANAGEMENT MEASURES

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. 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 proposed cemetery expansion and improvements.

Table 5-1 provides a summary of BMPs and environmental protection measures included in the Proposed Action to ensure that adverse, minor effects are controlled and/or reduced. In general, implementation of management measures, as identified in Table 5-1, would maintain impacts at acceptable levels for all resource areas analyzed.

Table 5-1. Best Management Practices Incorporated into the Proposed Action

<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>Maintain landscaped areas, buildings, roadways, and signage.</td>
</tr>
<tr>
<td></td>
<td>Design the site to accentuate existing viewsheds.</td>
</tr>
<tr>
<td></td>
<td>Conduct construction activities with a sensitivity toward maintaining the dignity and solemnity of the National Cemetery environment during interment services.</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 methods include application of water, dust palliative, or soil stabilizers; and use of enclosures 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>
</tr>
<tr>
<td></td>
<td>Cover haul trucks with tarps.</td>
</tr>
<tr>
<td></td>
<td>Stabilize previously disturbed areas through revegetation or mulching if the area would be inactive for several weeks or longer.</td>
</tr>
<tr>
<td></td>
<td>Develop a spoils management plan. This will entail stabilizing existing spoils storage areas through excavation, compaction, and stabilization measures.</td>
</tr>
<tr>
<td></td>
<td>Visually monitor all construction activities regularly, particularly during extended periods of dry weather, and implement dust-control measures, when appropriate.</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>Adhere to federal and state regulations during the development process.</td>
</tr>
<tr>
<td></td>
<td>Should human remains or other cultural items, as defined by NAGPRA, be discovered during project construction, cease work immediately. Contact all required parties, and treat discovered items in accordance with applicable state and federal law(s).</td>
</tr>
<tr>
<td>Technical Resource Area</td>
<td>Best Management Practice/Environmental Protection Measure</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming sources of erosion.</td>
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<tr>
<td>Minimize the disturbance of steep slopes.</td>
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</tr>
<tr>
<td>Minimize erosion during and after soil disturbance using BMPs such as temporary seeding and planting, final vegetative cover, mulches, compost blankets, erosion control blankets and mats, and soil tackifiers.</td>
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</tr>
<tr>
<td>Use water or a soil-binding agent or other dust-control technique as needed to avoid wind-blown soil.</td>
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</tr>
<tr>
<td>Preserve existing vegetation and revegetate open areas when practical. Do not remove temporary sediment control practices until final vegetative cover or permanent stabilization measures are established.</td>
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</tr>
<tr>
<td>Maintain a natural vegetative buffer of at least 50 feet between disturbance areas and jurisdictional waters of the United States.</td>
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</tr>
<tr>
<td>Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion. BMPs used for these purposes include diversion of run-on; trench drains, slope drains, French drains, and subsurface drains; temporary diversion dikes; earthen berms; grass-lined or armored channels (such as turf reinforcement mats); drainage swales; energy dissipaters; rock outlet protection; drop inlets; and check dams.</td>
<td></td>
</tr>
<tr>
<td>Control sediment as needed along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internally and at the site boundary, by using BMPs such as sediment fences, buffer zones, sediment traps, rock filters, compost berms/compost socks, fiber wattles, storm drain inlet protection, and temporary or permanent sedimentation basins.</td>
<td></td>
</tr>
<tr>
<td>Design impervious surfaces to drain to stormwater management systems.</td>
<td></td>
</tr>
<tr>
<td>Create and maintain tree-lined borders to minimize viewed impact.</td>
<td></td>
</tr>
<tr>
<td>Obtain all required applicable permits in advance of construction activities and adhere to permit conditions during construction.</td>
<td></td>
</tr>
<tr>
<td>Adhere to stormwater and erosion and sediment control BMPs as described in Section 3.5.4.</td>
<td></td>
</tr>
<tr>
<td>Obtain applicable Section 401/404 (Clean Water Act) permits, National Pollutant Discharge and Elimination (NPDES) permits, and local permits (e.g., utility/sewer connections).</td>
<td></td>
</tr>
<tr>
<td>Complete work near water bodies using equipment having the least impact (e.g., use of rubber-tired vehicles versus tracked vehicles).</td>
<td></td>
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<tr>
<td>Ensure that no motorized equipment is operated (driven) in the water.</td>
<td></td>
</tr>
<tr>
<td>Confine construction impacts to the minimum area necessary to complete the work.</td>
<td></td>
</tr>
<tr>
<td>Perform work in a manner that does not inhibit fish passage.</td>
<td></td>
</tr>
<tr>
<td>Technical Resource Area</td>
<td>Best Management Practice/Environmental Protection Measure</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Floodplains and Wetlands</strong></td>
<td>Adhere to the stipulations in the Nationwide permit from the U.S. Army Corps of Engineers, the 401 Water Quality Certification from the Oregon Department of Environmental Quality, and the wetland permit from the Oregon Department of State Lands. Carry out the approved compensatory credits.</td>
</tr>
<tr>
<td><strong>Wildlife and Habitat</strong></td>
<td>Instruct construction personnel to walk through the site immediately before clearing an area to search for any migratory songbird nests that may be affected. If necessary, establish nest protection practices on a case-by-case basis. Prior to disturbance of the road rights-of-way that pass through the two areas of the property that are protected by conservation easement, conduct surveys to confirm the absence of Nelson’s checker-mallow and bald eagle nesting sites. Implement appropriate management strategies prior to construction, as necessary. Periodically remove invasive plant species from conservation areas on site and restore with native plant species to the extent practicable.</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>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. Conduct construction activities with a sensitivity toward maintaining the dignity and solemnity of the National Cemetery environment during interment services. Encourage operators to use equipment in a manner that is mindful of the sensitivities of nearby residents and visitors to the cemetery.</td>
</tr>
<tr>
<td><strong>Transportation and Parking</strong></td>
<td>Schedule construction activities in such a way that traffic increases do not coincide with typical morning and evening periods of increased traffic. Route construction equipment to minimize impacts on neighboring communities.</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>None required</td>
</tr>
</tbody>
</table>
6 LIST OF PREPARERS

Department of Veterans Affairs Staff

Mr. Glenn Elliott  
Environmental Engineer  
U.S. Department of Veterans Affairs Office of Construction and 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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<tbody>
<tr>
<td>Dr. Sean Donahoe</td>
<td>Management Support, Senior Document Review</td>
<td>31</td>
</tr>
<tr>
<td>Erika Wettergreen</td>
<td>Management Support, Document Review</td>
<td>25</td>
</tr>
<tr>
<td>Tanya Perry</td>
<td>Management Support, Document Review</td>
<td>16</td>
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<tr>
<td>Kristie Baynard</td>
<td>Cultural Resources</td>
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<tr>
<td>John Cannon</td>
<td>Wildlife and Habitat</td>
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<tr>
<td>Randall Farren</td>
<td>Air Quality; Geology, Topography, and Soils; Noise; Transportation and Parking; Utilities; Document Preparation</td>
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<tr>
<td>William Gray (Subcontractor, LRS Group)</td>
<td>Document Preparation</td>
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<tr>
<td>Charles Mateer</td>
<td>Hydrology and Water Quality</td>
<td>4</td>
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<tr>
<td>Nate Norman (Balance Environmental)</td>
<td>Wetlands</td>
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<tr>
<td>Elizabeth Pratt</td>
<td>Land Use, Transportation and Parking, Document Preparation</td>
<td>10</td>
</tr>
<tr>
<td>Mary Young</td>
<td>Air Quality; Geology, Topography, and Soils; Hydrology and Water Quality; Document Preparation</td>
<td>13</td>
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</tbody>
</table>
7 REFERENCES


REFERENCES


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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
</tr>
<tr>
<td>APE</td>
<td>area of potential effect</td>
</tr>
<tr>
<td>BGEPA</td>
<td>Bald and Golden Eagle Protection Act</td>
</tr>
<tr>
<td>BMP</td>
<td>best management practices</td>
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<tr>
<td>CEQ</td>
<td>Council on Environmental Quality</td>
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<tr>
<td>CFM</td>
<td>Office of Construction and Facilities Management</td>
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<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>DDT</td>
<td>dichlorodiphenyltrichloroethane</td>
</tr>
<tr>
<td>E&amp;S</td>
<td>erosion and sedimentation</td>
</tr>
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<td>EA</td>
<td>Environmental Assessment</td>
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<td>EO</td>
<td>Executive Order</td>
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<td>ETO</td>
<td>Early Turnover</td>
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<td>IPaC</td>
<td>Information for Planning and Consultation</td>
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<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
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<td>NAGPRA</td>
<td>Native American Graves Protection and Repatriation Act</td>
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<td>National Cemetery Administration</td>
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<td>National Environmental Policy Act</td>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<td>NOA</td>
<td>Notice of Availability</td>
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<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<td>Natural Resources Conservation Service</td>
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<td>NRHP</td>
<td>National Register of Historic Places</td>
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<td>ODEQ</td>
<td>Oregon Department of Environmental Quality</td>
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<td>ODSL</td>
<td>Oregon Department of State Lands</td>
</tr>
<tr>
<td>ORS</td>
<td>Oregon Revised Statutes</td>
</tr>
<tr>
<td>OWRD</td>
<td>Oregon Water Resources Department</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 Office</td>
</tr>
<tr>
<td>T&amp;E</td>
<td>threatened and endangered</td>
</tr>
<tr>
<td>U.S.</td>
<td>United States</td>
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<td>USACE</td>
<td>U.S. Army Corps of Engineers</td>
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<td>USDA</td>
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<td>U.S. Fish and Wildlife Service</td>
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<td>USGS</td>
<td>U.S. Geological Survey</td>
</tr>
<tr>
<td>VA</td>
<td>U.S. Department of Veterans Affairs</td>
</tr>
</tbody>
</table>
AGENCIES AND INDIVIDUALS CONSULTED

Native American Tribes

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Portland, OR 97232-4100

Media

Clackamas Review

Oregon City News
## 10 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>
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<tr>
<td>General Permit NPDES Stormwater Discharge Permit</td>
<td>Oregon Department of Environmental Quality (ODEQ)</td>
<td>Construction of any facility that disturbs one acre or more</td>
<td></td>
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</tr>
<tr>
<td>Section 401 Water Quality Certification (Clean Water Act) / Joint Permit Application</td>
<td>U.S. Army Corps of Engineers / Oregon Department of State Lands</td>
<td>Projects with potential to affect waters of the United States</td>
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<tr>
<td><strong>Federal</strong></td>
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<td></td>
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<tr>
<td>Farmland Conversion Impact Rating</td>
<td>USDA NRCS</td>
<td>Federal agencies (or federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act, to nonagricultural uses, will initially complete Parts I and III of the form to determine if the proposed conservation is in compliance with the act.</td>
<td>Complete Parts I and III of the form and submit to the USDA; a site inspection may be required.</td>
<td>Initial response within 10 days; up to 30 days to conduct a site inspection</td>
<td></td>
</tr>
</tbody>
</table>
CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Larry Salata
Supervisory Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
911 N.E. 11th Ave
Portland, OR 97232

SUBJECT: Informal Consultation for Proposed Expansion and Improvements at Willamette National Cemetery

Dear Mr. Salata:

The U.S. Department of Veterans Affairs (VA) would like to invite the U.S. Fish and Wildlife Service (USFWS) to participate with the VA in our evaluation of proposed expansion and improvements at the Willamette National Cemetery, located at 11800 SE Mt Scott Boulevard, Portland, OR 97086. The proposed action involves improvements to the existing cemetery as well as expansion of gravesites and associated infrastructure on approximately 20 acres of an approximately 38-acre parcel located near the intersection of SE 132nd Ave and SE Lucille Street in Portland (approximately 45° 27' 30" N by 122° 31' 47" W; see Figure 1). The action would develop approximately 23,150 new gravesites, providing at least 10 more years of burial capacity for the National Cemetery. The purpose of this letter is to initiate consultation with the USFWS per Section 7 of Endangered Species Act (ESA) of 1973, as amended.

An Environmental Assessment (EA) was prepared for the project expansion site in 2010 to analyze the potential for environmental effects resulting from acquisition of the site for the purpose of cemetery development. The EA was finalized in June 2010, with a Finding of No Significant Impact (FONSI). The VA obtained the expansion site in August 2011. The VA is entering into the next stage of the project, which involves the preparation of a Site-Specific Environmental Assessment (SEA) that tiers off of the EA developed in 2010 and which analyzes the potential project impacts now site-specific development plans are underway. A Biological Assessment (BA) is also being developed in coordination with the SEA.

The expansion site currently includes approximately 21 acres of hay fields that historically supported agricultural production. The remainder of the site is moderately to steeply sloping forested and riparian land. Concurrent with the VA’s purchase of the expansion site, the City of Portland placed approximately 17 acres of the expansion site under perpetual conservation easement, denoted by the violet-colored overlay in Figure 2. The VA conducted an aquatic resources survey in 2016 which identified one palustrine forested wetland (0.03 acres), two palustrine emergent wetlands (0.26 and 0.07 acres), and one palustrine scrub-shrub wetland (0.18 acres). These wetlands are associated with three small intermittent tributaries to Johnson Creek that cross the site. There is also a small ponded area created by an artificial
impoundment. All water resources identified are located within the conservation easement area and are shown on Figure 3.

The conservation easement generally precludes development of the forested and riparian areas of the expansion site; however, two conveyance rights of way allow for the development of two access roads for vehicular and pedestrian traffic, as denoted by D-1 and D-2 on Figure 2. The rights of way for the D-1 and D-2 access roads provide for development of 24-foot wide and 12-foot wide roads, respectively, as well as any necessary bridge, overpasses, or crossings required to span the aquatic resources on the site.

As the VA begins to develop the SEA and BA, we would greatly appreciate any information that USFWS can make available that would assist us in the evaluation of the proposed action. This letter constitutes a request for information on federally listed, threatened, endangered, or candidate species, or critical habitat within the vicinity of this project. A notional list of species to be considered in the development of the Biological Assessment is provided in Table 1 to assist in your review.

The VA wishes to take every opportunity to work together in a relationship where a federal, state, or local agency has decision-making authority or special expertise that can enhance the VA’s decision-making efforts. If you would like to request additional information regarding this proposed action, please contact Mr. Glenn Elliott, U.S. Department of Veterans Affairs, Office of Construction & Facilities Management, 425 I (eye) Street NW, Room 6W417a, Washington, D.C., 20001, or send via email to glenn.elliott@va.gov, or by telephone at (202) 632-5879.

Sincerely,

Glenn Elliott
Environmental Engineer
U.S. Department of Veterans Affairs
Office of Construction and Facilities Management
Figure 1. Site of Proposed Action

Source: Department of Veterans Affairs, City of Portland, Clackamas County, ESRI Data & Maps 2015

June 2016
Figure 2. Conservation Easements and Rights of Way at the Project Site

Willamette National Cemetery

Site Boundary

Willamette National Cemetery Right of Way Easement

Conservation Easement

April 2016

Source: Department of Veterans Affairs, City of Portland, Clackamas County, ESRI Data & Maps 2015

0 150 300 Feet

0 30 60 Meters
Table 1. Notional Assessment of Species to be Analyzed in the Biological Assessment
<table>
<thead>
<tr>
<th>Federal Trust Species</th>
<th>Status</th>
<th>To Be Analyzed in the Biological Assessment?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fish</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steelhead Trout (Oncorhynchus mykiss)</td>
<td>Threatened</td>
<td>Yes – This species potentially occurs downstream of the project site.¹</td>
</tr>
<tr>
<td>Coho Salmon (Oncorhynchus kisutch)</td>
<td>Threatened</td>
<td>No – There are no threatened or endangered populations of this species listed for the Upper Willamette River Evolutionarily Significant Unit (ESU).²</td>
</tr>
<tr>
<td>Chinook Salmon (Oncorhynchus tshawytscha)</td>
<td>Threatened</td>
<td>Yes – This species potentially occurs downstream of the project site.³</td>
</tr>
<tr>
<td>Bull Trout (Salvelinus confluentus)</td>
<td>Threatened</td>
<td>Yes – This species potentially occurs downstream of the project site.⁴</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bald eagle (Haliaeetus leucocephalus)</td>
<td>BGEPA</td>
<td>Yes – This species potentially occurs on the project site.⁵</td>
</tr>
<tr>
<td>Golden eagle (Aquila chrysaetos)</td>
<td>BGEPA</td>
<td>Yes – This species potentially occurs on the project site.⁶</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Federal Trust Species</th>
<th>Status</th>
<th>To Be Analyzed in the Biological Assessment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern spotted owl (Strix occidentalis caurina)</td>
<td>Threatened</td>
<td>No – The northern spotted owl utilizes old-growth forest habitat, which is not present at the project site. The scarcity of forest surrounding the project site also indicates that there is insufficient forested acreage present to support this species.</td>
</tr>
<tr>
<td>Streaked horned lark (Eremophila alpestris strigata)</td>
<td>Threatened</td>
<td>No – The habitat surrounding the project site does not provide the landscape context needed to support this species, which typically needs at least 300 acres of suitable habitat (flat, treeless areas such as native prairies, coastal dunes, fallow and active agricultural fields, wetland mudflats, and pasture).</td>
</tr>
</tbody>
</table>

**Insects**

Fender’s blue butterfly (Icaricia icarioides fenderi)  
Endangered  
No – The potential range map for this species does not include the project site.

**Flowering Plants**

Bradshaw’s desert-parsley (Lomatium bradshawii)  
Endangered  
No – Records indicate that this species is not found in the county where the project site is located.

Kincaid’s Lupine (Lupinus sulphureus kincaidi)  
Threatened  
No – Records indicate that this species is not found in the county where the project site is located.

Nelson’s checker-mallow (Sidalcea nelsoniana)  
Threatened  
Yes – Records indicate that this species has been found near the project site; however, it typically occurs on soil types different from those present at the project site. This species typically occurs in meadows with wet depressions or along streams, and if present, would likely occur along a stream in the forested area of the property that is protected by a conservation easement.

Water howellia (Howellia aquatilis)  
Threatened  
No – This species is believed to be extirpated from Oregon.

Willamette daisy (Erigeron decumbens)  
Endangered  
No – The most recent record for this species in the county where the project site is located is from before 1990.

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7 Anderson Engineering of Minnesota, LLC and MACTEC Engineering and Consulting, Inc., Final Environmental Assessment for Planned Expansion of the Willamette National Cemetery, Portland, Oregon.
8 U.S. Fish & Wildlife Service, Revised Recovery Plan for the Northern Spotted Owl (Strix Occidentalis Caurina), June 28, 2011.
Mr. Glenn Elliott, Environmental Engineer
U.S. Department of Veterans Affairs
Office of Construction and Facilities Management
425 I Street NW, Room 6W417a
Washington, D.C. 20001

Dear Mr. Elliott:

The U.S. Fish and Wildlife Service (Service) received your August 3, 2016, letter on August 15, 2016. The letter originally was sent to our Regional Office at 911 NE 11th Avenue, Portland, Oregon; it was then forwarded to our office for a response. We have reviewed your request for the Service to participate with the U.S. Department of Veterans Affairs (VA) in the evaluation of the proposed expansion and improvements at the Willamette National Cemetery (11800 SE Mt. Scott Boulevard, Portland, Oregon). The proposed action involves improvements to the existing cemetery as well as expansion of gravesites and associated infrastructure on approximately 20 acres of an approximately 38-acre parcel located near the intersection of SE 132nd Avenue and SE Lucille Street in Portland, Oregon (approximately 45° 27' 30" N by 122° 31' 47" W). The action would develop approximately 23,150 new gravesites, providing at least 10 more years of burial capacity for the National Cemetery. The purpose of your letter is to initiate consultation with the Service per Section 7 of Endangered Species Act (ESA) of 1973, as amended.

The expansion site currently includes approximately 21 acres of hay fields that historically supported agricultural production. The remainder of the site is moderately- to steeply-sloping forested and riparian land. Concurrent with the VA’s purchase of the expansion site, the City of Portland placed approximately 17 acres of the expansion site under perpetual conservation easement. The VA conducted an aquatic resources survey in 2016 which identified one palustrine forested wetland (0.03 acres), two palustrine emergent wetlands (0.26 and 0.07 acres), and one palustrine scrub-shrub wetland (0.18 acres). These wetlands are associated with three small intermittent tributaries to Johnson Creek that cross the site. There also is a small ponded area created by an artificial impoundment.

Your letter noted that the conservation easement generally precludes development of the forested and riparian areas of the expansion site. However, two conveyance rights-of-way allow for the development of two access roads for vehicular and pedestrian traffic. The rights-of-way for access roads provide for development of 24-foot wide and 12-foot wide roads, respectively, as well as any necessary bridge, overpasses, or crossings required to span the aquatic resources on the site.
Your letter also included a table of potential species you may analyze in the biological assessment and a request to us for any information that we could make available for those species. All of the species in your table (except for the eagles) are federally listed under the ESA, and it is only these listed species that may need to be addressed in the biological assessment; the eagles are not subject to consultation under the ESA. For your information, the two eagle species can occur in your project area. Bald eagle (Haliaeetus leucocephalus) populations have been increasing in the Portland, Oregon, area in the last decade and could potentially nest in your project area. Consequently, your proposed project has the potential to disturb nesting eagles. Because bald eagles are afforded certain protections under the Bald and Golden Eagle Protection Act, please coordinate with us on this potential issue as your proposed project develops. Golden eagles (Aquila chrysaetos) only occasionally occur in the area and there are no known nesting areas in Multnomah County for this species. For the federally-listed species, we recommend that you visit the Information for Planning and Conservation (IPaC) website (https://ecos.fws.gov/ipac/) to obtain a list of species protected under the ESA specific to your project area. IPaC is a project planning tool which streamlines the Service’s environmental review process and it will help you determine what those impacts are likely to be and provide suggestions for addressing those impacts.

IPaC does not include listed species that fall under the sole jurisdiction of the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NMFS). Generally, NMFS is the lead agency for listed marine species (i.e., marine mammals, sea turtles, fish [marine and anadromous], marine invertebrates, and marine plants), while the Service manages upland and freshwater species in addition to sea turtles when they are on land. IPaC includes only those species for which the Service is the sole lead agency or for which the Service and NMFS share the lead responsibilities. You will need to contact NMFS directly to obtain a list of species in your project area for which NMFS is the sole lead agency.

In regards to the federally-listed species, we agree that you probably do not need to analyze impacts to northern spotted owls (Strix occidentalis caurina), streaked horned larks (Eremophila alpestris strigata), and Fender’s blue butterfly (Icaricia icarioides fenderi). Suitable habitat is not present at your project site for these species. We also agree that bull trout (Salvelinus confluentus) could possibly occur downstream from your project area and therefore should be analyzed. For the plant species, it is true that records indicate that the species are not found in Multnomah County even though the project area is within the historical range; however, records are usually from areas that have public access. Most of the private properties have not been surveyed for listed species. Therefore, it is best not to assume that the species do not occur on the project site because there are no county records. A note specifically on water howellia (Howellia aquatilis) is that your information is incorrect; the species has not been extirpated from Oregon. In fact, the remaining population is approximately 18 miles away in Clackamas County.

Hopefully, the information we provided will assist you in your analysis. If you have further questions regarding this matter, please contact Jeff Dillon at (503) 231-6179.

Sincerely,

[Signature]
Paul Henson, Ph.D.
State Supervisor
In Reply Refer To: May 31, 2017
Consultation Code: 01EOFW00-2017-SLI-0409
Event Code: 01EOFW00-2017-E-00610
Project Name: Willamette National Cemetery

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the
human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:
http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm;
http://www.towerkill.com; and

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to investigate opportunities for incorporating conservation of threatened and endangered species into project planning processes as a means of complying with the Act. If you have questions regarding your responsibilities under the Act, please contact the Endangered Species Division at the Service's Oregon Fish and Wildlife Office at (503) 231-6179. For information regarding listed marine and anadromous species under the jurisdiction of NOAA Fisheries Service, please see their website (http://www.nwr.noaa.gov/habitat/habitat_conservation_in_the_nw/habitat_conservation_in_the_nw.html).

Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Oregon Fish And Wildlife Office**
2600 Southeast 98th Avenue, Suite 100
Portland, OR 97266-1398
(503) 231-6179
Project Summary

Consultation Code: 01EOFW00-2017-SLI-0409

Event Code: 01EOFW00-2017-E-00610

Project Name: Willamette National Cemetery

Project Type: DEVELOPMENT

Project Description: This project centers on a proposed expansion and improvements at the Willamette National Cemetery, located at 11800 SE Mt. Scott Boulevard, Portland, OR 97086. The proposed action involves improvements to the existing cemetery as well as expansion of gravesites and associated infrastructure on approximately 20 acres of an approximately 38-acre parcel located near the intersection of SE 132nd Ave and SE Lucille Street in Portland (approximately 45° 27' 30" N by 122° 31' 47" W). The action would develop approximately 24,050 new gravesites, providing at least 10 more years of burial capacity for the National Cemetery. Of this total, 13,000 gravesites would be columbaria niches that are designed to hold cremains within a series of walls.

An Environmental Assessment (EA) was prepared for the project expansion site in 2010 to analyze the potential for environmental effects resulting from acquisition of the site for the purpose of cemetery development. The EA was finalized in June 2010, with a Finding of No Significant Impact (FONSI). The VA obtained the expansion site in August 2011. The VA is entering into the next stage of the project, which involves the preparation of a Site-Specific Environmental Assessment (SEA) that tiers off of the EA developed in 2010 and which analyzes the potential project impacts now that site-specific development plans are underway. A Biological Assessment (BA) is also being developed in coordination with the SEA.

The expansion site currently includes approximately 21 acres of hay fields that historically supported agricultural production. The remainder of the site is moderately to steeply sloping forested and riparian land. Concurrent with the VA's purchase of the expansion site, the City of Portland placed approximately 17 acres of the expansion site under perpetual conservation easement. The VA conducted an aquatic resources survey in 2016 that identified one palustrine forested wetland (0.03 acres), four palustrine emergent wetlands (0.26, 0.07, 0.06, and 0.05 acres), and one palustrine scrub-shrub wetland (0.18 acres). These wetlands are associated with two small tributaries (one intermittent and one perennial) to Johnson Creek that cross the site and a small tributary.
(intermittent) to the perennial tributary stream. There is also a small ponded area created by an artificial impoundment.

The conservation easement generally precludes development of the forested and riparian areas of the expansion site; however, two conveyance rights of way allow for the development of two access roads for vehicular and pedestrian traffic.

Project Location:
Approximate location of the project can be viewed in Google Maps:
https://www.google.com/maps/place/45.45903569705554N122.53181310378892W

Counties: Clackamas, OR

**Endangered Species Act Species**

There is a total of 7 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.
Birds

NAME | STATUS
---|---
Northern Spotted Owl (*Strix occidentalis caurina*) | Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: [https://ecos.fws.gov/ecp/species/1123](https://ecos.fws.gov/ecp/species/1123)

Streaked Horned Lark (*Eremophila alpestris strigata*) | Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: [https://ecos.fws.gov/ecp/species/7268](https://ecos.fws.gov/ecp/species/7268)

Flowering Plants

NAME | STATUS
---|---
Bradshaw's Desert-parsley (*Lomatium bradshawii*) | Endangered

No critical habitat has been designated for this species.
Species profile: [https://ecos.fws.gov/ecp/species/5743](https://ecos.fws.gov/ecp/species/5743)

Kincaid's Lupine (*Lupinus sulphureus ssp. kincaidii*) | Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: [https://ecos.fws.gov/ecp/species/3747](https://ecos.fws.gov/ecp/species/3747)

Nelson's Checker-mallow (*Sidalcea nelsoniana*) | Threatened

No critical habitat has been designated for this species.
Species profile: [https://ecos.fws.gov/ecp/species/7340](https://ecos.fws.gov/ecp/species/7340)

Water Howellia (*Howellia aquatilis*) | Threatened

No critical habitat has been designated for this species.
Species profile: [https://ecos.fws.gov/ecp/species/7090](https://ecos.fws.gov/ecp/species/7090)

Willamette Daisy (*Erigeron decumbens*) | Endangered

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: [https://ecos.fws.gov/ecp/species/6270](https://ecos.fws.gov/ecp/species/6270)

Critical habitats

There are no critical habitats within your project area.
March 7, 2017

Department of Veteran Affairs
National Cemetery Administration
Attn: Mr. Glenn Elliott, Program/Project Manager
Office of Construction & Facilities Management
425 I Street NW
Washington, D.C. 20001

Re: WD #2016-0327 Wetland Delineation Report for the Proposed Willamette National Cemetery Expansion Project, Clackamas County; T 1S R 2E S 26BA TL 400; S 26BB TL 100; and S 26BD TL 200

Dear Mr. Elliott:

The Department of State Lands has reviewed the wetland delineation report prepared by Balance Environmental for the site referenced above. Based upon the information presented in the report, a site visit on November 2, 2016, and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in revised Figure 6. Please replace all copies of the preliminary wetland map with this final Department-approved map. Within the study area, six wetlands (totaling approximately 0.51 acres), a pond, and three tributaries to Johnson Creek were identified.

The wetlands, pond, and tributaries are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high water line (OHWL) of a waterway (or the 2 year recurrence interval flood elevation if OHWL cannot be determined).

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act at the time that a permit application is submitted. We recommend that you attach a copy of this concurrence letter to both copies of any subsequent joint permit application to speed application review.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.
This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. Please phone me at 503-986-5232 if you have any questions.

Sincerely,

Peter Ryan, PWS
Jurisdiction Coordinator

Approved by Kathy Verble, CPSS
Aquatic Resource Specialist

Enclosures

ec: Nate Norman, Balance Environmental
Clackamas County Planning Department (Maps enclosed for updating LWI)
Dominic Yballe, Corps of Engineers
Anita Huffman, DSL
WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

This form must be included with any wetland delineation report submitted to the Department of State Lands for review and approval. A wetland delineation report submittal is not “complete” unless the fully completed and signed report cover form and the required fee are submitted. Attach this form to the front of an unbound report or include a hard copy of the completed form with a CD/DVD that includes a single PDF file of the report cover form and report (minimum 300 dpi resolution) and submit to Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279. A single PDF attachment of the completed cover form and report may be e-mailed to Wetland_Delineation@dsl.state.or.us. For submittal of PDF files larger than 10 MB, e-mail instructions on how to access the file from your ftp or other file sharing website. Fees can be paid by check or credit card. Make the check payable to the Oregon Department of State Lands. To pay the fee by credit card, call 503-986-5200.

Applicant: [Name and Address]
Department of Veterans Affairs, National Cemetery Administration

Authorized Legal Agent: Mr. Glenn Elliott, Program/Project Manager,
Office of Construction & Facilities Management
425 I Street NW, Washington, D.C. 20001

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: Glenn Elliott
Signature: 
Date: 

Special instructions regarding site access:

Project and Site Information (using decimal degree format for lat/long, enter centroid of site or start & end points of linear project)

Project Name: Department of Veterans Affairs, National Cemetery Expansion
Latitude: 45°27'31.55"N Longitude: 122°31'55.76"W

Proposed Use: Cemetery Expansion

Project Street Address (or other descriptive location): 11800 SE Mt. Scott Blvd. Portland, OR 97086-6937
10 miles southeast of Portland

City: N/A County: Multnomah and Clackamas

Wetland Delineation Information

Wetland Consultant Name, Firm and Address:
Nate Norman, PWS
Balance Environmental
4720 Hollow Road
Nibley, Utah 84321

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.
Consultant Signature: nate.norman@gmail.com
Date: 3/7/17

Primary Contact for report review and site access is: 
Consultant
Applicant/Owner
Authorized Agent

Check Box Below if Applicable:

- Wetland/Waters Present? Yes
- Study Area size: 37.7 acres
- Total Wetland Acres: 0.54 acres
- R-F permit application submitted
- Fee payment submitted $0.51

- Mitigation bank site
- Fee ($100) for resubmittal of rejected report

- Wetland restoration/enhancement project (not mitigation)
- No fee for request for reissuance of an expired report

- Industrial Land Certification Program Site

- Reissuance of a recently expired delineation
- Previous DSL # 
- Expiration date

Other Information:

Has previous delineation/application been made on parcel? Y N
If known, previous DSL #

Does LWI, if any, show wetland or waters on parcel? Y N

For Office Use Only

DSL Reviewer: 
Fee Paid Date: 3/12/16

Date Delineation Received: 3/14/16
DSL Project # 
DSL Site #

Scanned: 
Final Scan: 

Electronic Submittal
Figure 1. Location map: Willamette National Cemetery Expansion.
Dear Ms. Kratz:

The U.S. Department of Veterans Affairs (VA) would like to invite the National Marine Fisheries Service (NMFS) to participate with the VA in our evaluation of proposed expansion and improvements at the Willamette National Cemetery, located at 11800 SE Mt Scott Boulevard, Portland, OR 97086. The proposed action involves improvements to the existing cemetery as well as expansion of gravesites and associated infrastructure on 16.7 acres of an approximately 38-acre parcel located near the intersection of SE 132nd Ave and SE Lucille Street in Portland (approximately 45° 27' 30" N by 122° 31' 47" W; see Figure 1). The action would develop approximately 23,150 new gravesites, providing at least 10 more years of burial capacity for the National Cemetery. Of this total, 13,000 gravesites would be columbaria niches that are designed to hold cremains within a series of walls. The project would also include gravesite expansion within the original cemetery, facility renovation, facility replacement (construction), infrastructure upgrades, and various other new elements and features. The purpose of this letter is to initiate consultation with the NMFS per Section 7 of Endangered Species Act (ESA) of 1973, as amended.

An Environmental Assessment (EA) was prepared for the project expansion site in 2010 to analyze the potential for environmental effects resulting from acquisition of the site for the purpose of cemetery development. The EA was finalized in June 2010, with a Finding of No Significant Impact (FONSI). The VA obtained the expansion site in August 2011. The VA is entering into the next stage of the project, which involves the preparation of a Site-Specific Environmental Assessment (SEA) that tiers off of the EA developed in 2010 and which analyzes the potential project impacts now that site-specific development plans are underway. A Biological Evaluation (BE) is also being developed in coordination with the SEA.

The expansion site currently includes approximately 21 acres of hay fields that historically supported agricultural production. The remainder of the site is moderately to steeply sloping forested and riparian land. Concurrent with the VA’s purchase of the expansion site, the City of Portland placed approximately 17 acres of the expansion site under perpetual conservation easement, denoted by the violet-colored overlay in Figure 2. The VA conducted an aquatic resources survey in 2016 that identified one palustrine forested wetland (0.03 acres), four palustrine emergent wetlands (0.26, 0.07, 0.06, and 0.05 acres), and one palustrine scrub-shrub wetland (0.18 acres). These wetlands are associated with two small tributaries (one intermittent and one perennial) to Johnson Creek that cross the site and a small tributary (intermittent) to the
perennial tributary stream. There is also a small ponded area created by an artificial impoundment. The aquatic resources survey, which is considered a Preliminary Jurisdictional Determination, characterized these streams as likely jurisdictional, as they eventually connect to the Willamette River via Johnson Creek. All water resources identified are located within the conservation easement area and are shown on Figure 3. The expansion site falls within the Johnson Creek–Willamette River Watershed, which is a subwatershed within the Lower Willamette Watershed (Hydrologic Unit Code 17090012).

The conservation easement generally precludes development of the forested and riparian areas of the expansion site; however, two conveyance rights of way allow for the development of two access roads for vehicular and pedestrian traffic, as denoted by D-1 and D-2 on Figure 2. The rights of way for the D-1 and D-2 access roads provide for development of 24-foot wide and 12-foot wide roads, respectively, as well as any necessary bridge, overpasses, or crossings required to span the aquatic resources on the site.

As the VA begins to develop the SEA and BE, we would greatly appreciate any information that NMFS can make available that would assist us in the evaluation of the proposed action. This letter constitutes a request for information on federally listed, threatened, endangered, or candidate species, or critical habitat within the vicinity of this project.

The Action Area lays in the northern portion of the Willamette Valley and in the Portland/Vancouver Basin ecoregion. The Action Area is defined as the area within and immediately surrounding the boundaries of the existing Willamette National Cemetery and the area within and immediately surrounding the Expansion Area Boundary (See Figure 3). Because of construction activities, and because the site is located upstream of critical habitat of several protected fish species, the Action Area extends downstream from the tributaries contained within these boundaries toward Johnson Creek and the Willamette River to capture indirect impacts. Since the project area is within Hydrologic Unit 17090012, the VA plans to assess the impacts on the steelhead trout (*Oncorhynchus mykiss*) and the coho (*Oncorhynchus kisutch*), chum (*Oncorhynchus keta*), and chinook (*Oncorhynchus tsawytscha*) salmon as well as the critical habitat of these species (65 FR 7764, February 16, 2000; 81 FR 9252, February 24, 2016).

The VA wishes to take every opportunity to work together in a relationship where a federal, state, or local agency has decision-making authority or special expertise that can enhance the VA's decision-making efforts. The VA is concurrently consulting with U.S. Fish and Wildlife Service for species under their jurisdiction. If you would like to request additional information regarding this proposed action, please contact Mr. Glenn Elliott, U.S. Department of Veterans Affairs, Office of Construction & Facilities Management, 425 I (eye) Street NW, Room 6W417a, Washington, D.C., 20001, or send via email to glenn.elliott@va.gov, or by telephone at (202) 632-5879.

Sincerely,

Glenn Elliott
Environmental Engineer
U.S. Department of Veterans Affairs
Office of Construction and Facilities Management
## PART I (To be completed by Federal Agency)

- **Name of Project**: Willamette National Cemetery Expansion
- **Proposed Land Use**: National Cemetery
- **County and State**: Clackamas County, Oregon

### Name of Land Evaluation System Used
- U.S. Department of Agriculture

### Name of State or Local Site Assessment System
- Jericho Winter

### Date Of Land Evaluation Request
- January 8, 2018

### Federal Agency Involved
- Department of Veterans Affairs

### Person Completing Form
- Glenn Elliott

### Date Request Received By NRCS
- 1/8/2018

### Average Farm Size
- 43 acres

### Farmlands In Gov't Jurisdiction
- Acres: 365.57
- %: 56.8

### Total Acres In Site
- 16.7

### Percentage Of Farmland In County
- 0.01

### Percentage Of Farmland In Govt. Jurisdiction
- 98.7

### Relative Value Of Farmland To Be Converted
- (Scale of 0 to 100 Points)
- 40.7

### Site Assessment Criteria
- 1. Area In Non-urban Use
- 2. Perimeter In Non-urban Use
- 3. Percent Of Site Being Farmed
- 4. Protection Provided By State and Local Government
- 5. Distance From Urban Built-up Area
- 6. Distance To Urban Support Services
- 7. Size Of Present Farm Unit Compared To Average
- 8. Creation Of Non-farmable Farmland
- 9. Availability Of Farm Support Services
- 10. On-Farm Investments
- 11. Effects Of Conversion On Farm Support Services
- 12. Compatibility With Existing Agricultural Use

### TOTAL SITE ASSESSMENT POINTS
- 160

### Relative Value Of Farmland
- (From Part V)
- 40.7

### Total Site Assessment (From Part VI above or local site assessment)
- 260

### TOTAL POINTS
- 72.7

### Was A Local Site Assessment Used?
- YES

### Date Of Selection
- 8 January 2018

### Reason For Selection:

### Name of Federal agency representative completing this form:
- Glenn Elliott

### (See Instructions on reverse side)
January 25, 2018

Ms. Christine Curran  
Deputy State Historic Preservation Officer  
Oregon Parks and Recreation Department  
State Historic Preservation Office  
725 Summer St NE, Suite C  
Salem, Oregon 97301

Subject: Environmental Assessment – National Environmental Policy Act and National Historic Preservation Act Section 106 Consultation Initiation, Proposed Department of Veterans Affairs, Gravesite Development and Cemetery Improvements Portland, Clackamas County, Oregon

Dear Ms. Curran:

The Department of Veterans Affairs (VA) National Cemetery Administration (NCA) is preparing an environmental assessment for the above-referenced Willamette National Cemetery expansion, in accordance with VA regulations for compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act of 1966 as amended (NHPA). The purpose of this letter is to consult with the Oregon State Historic Preservation Officer per Section 106 of the NHPA and NEPA on the undertaking of the Willamette National Cemetery expansion and improvements.

In order to comply with VA regulations, we would like to request review and concurrence with the determination that the undertaking will have no effect on Historic Properties within the expansion area, as no historic properties are present within this area. The project vicinity is provided on Figures 1 and 2.

The Preferred Alternative proposes demolition and new construction within the existing cemetery. The VA plans to demolish two buildings and replace original signage and furnishings within the existing National Cemetery, which would have adverse effects to the historic properties. The Preferred Alternative would also include the construction of a new building (Building 3005) and additional parking near this building, and construction of a new covered equipment shelter (Figure 3).
Project Description

Cemetery Expansion
Established in 1949, Willamette National Cemetery began burial operations in 1951 on 102.63 acres donated by the State of Oregon. By 2012, this cemetery had become the seventh busiest by interment workload among the 131 national cemeteries operated by the NCA. With all available land developed, NCA purchased an adjacent parcel of 38.22 acres in August 2011 for cemetery expansion. Of the entire 38.22-acre site, approximately 21 acres are considered developable for gravesite expansion. This project is for the next 10-year gravesite expansion on this new land.

The Preferred Alternative would include the development of approximately 23,180 gravesites in the form of pre-placed crypts, columbarium niches, and in-ground cremains; as well as memorial walls, roadways, fencing, entry gate, a stream crossing, utility systems, site furnishings, signage, landscaping and irrigation. The Preferred Alternative would include an Early Turnover (ETO) phase consisting of approximately 1,200 pre-placed crypts with associated site development requirements.

Building Demolition and Construction within the Existing Cemetery
Within the existing cemetery, the Preferred Alternative is to demolish the Superintendent’s Building (Building 2001) and a maintenance building (Building 3003), and to replace the furnishings and signage to be consistent with the expansion area. New construction would include a new building (Building 3005) on the site of the existing Building 2001, a new covered shelter for equipment on the site of the existing Building 3003, a new employee parking lot, and a new maintenance service yard.

Area of Potential Effect

Per NHPA Sections 800.4(a)(1) and 800.16(d), the Area of Potential Effects (APE) for the undertaking was determined for both the above-ground and archaeological (below-ground) historic properties.

Archaeological Resources
The APE for archaeological resources consists of the entire area where ground disturbance might directly affect archaeological resources, should any be located within the project area. No indirect impacts are anticipated.

Above-ground Resources
The APE for above-ground resources consists of the project area and the area on land from which the project area would be visible. The visual APE was determined to encompass the viewshed of the project area in which the indirect, visual effects of the project might affect above-ground properties, if any were located there.
Prior Consultation

In 2010, an Environmental Assessment (EA) was completed evaluating the planned expansion of the National Cemetery. To assist with the evaluation of cultural resources, a cultural resource survey was completed of the 37.5 acres of vacant land to potentially be acquired (SHPO #22700). This report concluded that no archaeological resources were identified within the project area and no areas were identified that might have high probability for the presence of unknown and significant archaeological sites. A consultation letter was submitted to your office on August 5, 2009. It was recommended that no further archaeological work was needed for the project area. Mr. Dennis Griffin responded in a letter dated August 21, 2009 concurring with the determination that there were no historic properties within the project area (SHPO case #09-1518).

The maintenance and administration areas within the existing cemetery (same location as Figure 3) that are within the APE were consulted upon in 2012 for proposed work by the VA. A cultural resources survey report (Jensen 2012) was submitted to the Oregon SHPO in July 2012 and concurred upon. A records search at the SHPO and an intensive-level pedestrian survey of the APE was conducted as part of that report (see Figure 4 for a map of the pedestrian survey). It was determined that no archaeological resources had been recorded or identified within one mile of the APE of this 2012 survey. In addition, neither the pedestrian survey nor communications with tribal representatives yielded any information on archaeological sites, or traditional cultural areas within or adjacent to the APE (the administration and service area of the existing cemetery).

Historic Resources in the Area of Potential Effect

Cemetery Expansion Area
The expansion area is a non-contributing element of the Willamette National Cemetery Historic District. There are no other historic properties located within the cemetery expansion project area and none that would be affected outside of the existing and expanded cemetery, directly or indirectly with construction within the expansion project area. As stated above, no archaeological resources were identified in the area and no areas were identified that might have high probability for archaeological potential.

Willamette National Cemetery was listed to the National Register of Historic Places in 2016 as a historic district and it includes the entirety of the National Cemetery including the expansion area. It is eligible under criteria A, C, D, and G. It has 34 contributing resources and 1 noncontributing resource. The National Park Service has determined that all National Cemeteries are exceptionally significant places, with a period of significance from 1950 to present (National Park Service, 2011). Areas used for cemeteries, which include buildings, landscape features, roads, monuments, and markers, among other resources, are considered contributing, whereas unimproved acreage is noncontributing to the eligible cemetery. The one noncontributing resource to Willamette National Cemetery is the 38-acre unimproved area to be developed for cemetery expansion. Once the expansion site is planned and developed, it
would be included as a contributing resource. In addition, newly constructed resources to the existing cemetery would automatically be contributing to the historic district.

**Building Demolition within the Existing Cemetery**

The VA plans to demolish two contributing buildings within the existing historic district, Buildings 2001 and 3003 (Figures 4 and 5). These two buildings are original to the campus, dating to 1951, when the cemetery was first designed. Building 2001 was built in 1951 as a one-story, superintendent’s lodge, and now functions as administrative offices. This ranch-style, wood-frame building has an L-shaped footprint and is clad with Roman brick and stucco. It has a Dutch-gable roof clad with asphalt shingles. The only alterations to the dwelling are replacement windows installed in the 1990s. The NRHP nomination for the cemetery explains that this building retains a high degree of aesthetic integrity and much of its historic character. The second original building in this group, Building 3003, was designed as the original administrative office for the cemetery, and it currently serves as the maintenance office. Similar to Building 2001, it is a one-story, ranch-style building on a concrete foundation, and clad with Roman brick and stucco. It is capped with a hipped roof sheathed with asphalt shingles and features wide eaves. It has also undergone several modifications, including a mid-1970s L-shaped addition. The main elevation was reoriented to the side elevation, and the original entrance was in-filled. The alterations during the 1970s also removed all historic materials on the interior and dramatically changed the interior plan.

Other than the National Cemetery, no other aboveground historic properties are within the project area or within the viewshed for the proposed cemetery expansion.

**Determination of Effect**

**Cemetery Expansion Area**

The project area for expansion has not been altered from the 2010 EA and Section 106 consultation, which determined there were no archaeological sites in the area. Your office concurred that no additional archaeological work was needed in the expansion area and stated that all activities; however, should cease immediately and an archaeologist should be contacted to evaluate any discoveries.

Some potential exists for disturbance of previously unknown archaeological resources during the construction and excavation actions of the proposed action alternative of the cemetery expansion. Therefore, there is potential for long-term, minor adverse effects on cultural resources within the expansion area. Adherence to federal and state regulations would reduce potential impacts on previously unknown sites during construction.

In addition, it is recommended that construction of the expansion area would have no adverse effects to the existing Willamette National Cemetery historic district. The expansion area would be compatible with a similar design and use and therefore, would not compromise the original cemetery’s integrity.
Building Demolitions
Under the Preferred Alternative, it is recommended there would be adverse effects to historic properties within the existing National Cemetery because two contributing buildings would be demolished; Buildings 2001 and 3003. Removal of these two original resources of the NRHP-listed cemetery affects the integrity of those contributing resources, thus causing an adverse effect. The VA will work with the SHPO to identify appropriate mitigation measures.

New Construction
A new building (Building 3005) would be constructed in the same location as the former Superintendent’s Lodge (Building 2001). The construction of Building 3005 would not result in an adverse effect. It would be a contributing resource after its construction since it would fall within the period of significance for the cemetery, which is its establishment (1949) to the present. In addition, this new building would also conform to the Secretary of the Interior’s Standards for Rehabilitation. It would be compatible with the historic materials, features, size, scale and proportion, and massing to the historic lodge, maintenance, and service buildings in the district and its environment. Placing the building in the location of a previous building maintains spatial relationships that would not adversely affect the district’s integrity. There would be no adverse effect on the historic district. Because the new construction would be located where the current building is, there would be no effect to archaeological resources. New areas of ground disturbance could affect as yet unknown archaeological resources, however and there could be minor adverse impacts.

A new covered shelter for storing equipment in association with the existing maintenance facility would be constructed in the same location as Building 3003. The shelter would measure 90 feet wide and 30 feet deep. Due to the proximity to the existing maintenance facility and the screening with vegetation and fencing, it is recommended that this new facility would not have an adverse effect to the historic district.

Additional parking would be added under the Preferred Alternative between the main road, SE Mount Scott Boulevard, to the new Building 3005 and Building 3003. The siting of the new parking areas would not have an adverse effect to viewsheds or built resources since it would not be within any important views within the cemetery, would not affect any of the character-defining features of the cemetery, would not diminish the Memorial Park design of the facility, and would not cause the loss of original materials. However, there would be new areas of ground disturbance that could affect unknown archaeological resources. Therefore, it is recommended that the additional parking areas would have minor adverse effects.

Maintenance Complex
It is the VA’s goal to have a net-zero increase in square footage of conditioned space. The VA will consider a split facility with some maintenance activities remaining in the current location within the existing cemetery and other activities in the expansion area. Some of the items to be considered that the VA will require include new construction to be LEED Silver certified, upgrading security measures to meet life safety requirements, and sufficient parking for employees.
If you have any questions, please contact me by telephone at 202-632-5879 or by email at glenn.elliott@va.gov. We look forward to your response.

Sincerely,

Glenn Elliott
Environmental Engineer P P/M

Concurrence with Effect Determination, Clackamas County, Oregon

__________________________ Concur ___________________ Do Not Concur

__________________________
Christine Curran, Deputy State Historic Preservation Officer

Date ______________________
Figure 2. Willamette National Cemetery Original Site and Expansion Site
Figure 3. Proposed Facility Upgrades on Willamette National Cemetery
February 8, 2018

Honorable Cheryle A. Kennedy, Chairwoman
The Confederated Tribe of Grand Ronde Community of Oregon
9615 Grand Ronde Road
Grande Ronde, OR 97347

SUBJECT: U.S. Department of Veterans Affairs, Cemetery Expansion and Improvements at Willamette National Cemetery, Multnomah and Clackamas Counties, Oregon National Environmental Policy Act and National Historic Preservation Act Section 106 Consultation Initiation

Dear Chairwoman Kennedy:

The U.S. Department of Veterans Affairs (VA) is conducting an Environmental Assessment (EA) for Willamette National Cemetery expansion and improvements in compliance with the National Environmental Protection Act and Section 106 of the National Historic Preservation Act of 1966, as amended. Willamette National Cemetery is in the city of Portland in Multnomah and Clackamas Counties, Oregon, approximately 10 miles south of downtown Portland. The cemetery is located at 11800 SE Mt. Scott Boulevard, Portland, Oregon, 97086 (see Attachments 1 and 2).

The proposed action would include approximately 16.7 acres of a 38 acre parcel directly to the south and east of the existing cemetery; and new construction, demolition, and upgrading of facilities and infrastructure throughout the original cemetery. Two original buildings and one temporary building in the existing cemetery would be demolished and two new buildings would be constructed in their locations. Infrastructure repairs and upgrades in the existing cemetery would include drainage improvements, replacement signs and furnishings, and new parking areas. Attachment 3 shows the administration and service area of the existing cemetery, and the location of the three buildings to be demolished, the footprint of the new structures, and the new parking areas.

An EA was prepared for the project expansion site in 2010 to analyze the potential for environmental effects resulting from acquisition of the 38-acre site for the purpose of cemetery development. That EA was finalized in June 2010, with a Finding of No Significant Impact (FONSI). The VA obtained the expansion site in August 2011. The VA is entering into the next stage of the project, which involves the preparation of a Site-Specific Environmental Assessment (SEA) that tiers off of the EA developed in 2010. The SEA includes an analysis of the expansion area as well as proposed work to be done within the existing cemetery including demolitions, new construction, and ground disturbance for parking and infrastructure.

In August 2009, the VA consulted with the Confederated Tribe of Grand Ronde Community of Oregon regarding the purchase of the 38-acre expansion site for the EA. At that time, no concerns were expressed to the VA for the proposed project.
Area of Potential Effect

The Area of Potential Effect (APE) includes the newly acquired 38-acre expansion area; and the areas within the existing cemetery that are to be altered through demolition, new construction, and ground disturbance.

Historic Resources in the Area of Potential Effect

There are no known historic resources or traditional cultural properties in the 38-acre expansion area that is the APE. A Phase I Cultural Resources Survey (State Historic Preservation Office [SHPO] case no. 22700) was conducted in July 2009 pursuant to the 2010 EA for the planned expansion of the Willamette National Cemetery. The 2009 Cultural Resources Survey conducted by Lara Rooke and AMEC Earth & Environmental, Inc. concluded that no archaeological resources were identified within the 38-acre expansion site, and no areas were identified as having a high probability for the presence of unknown and significant archaeological sites.

The maintenance and administration areas within the existing cemetery (same location as Attachment 3) that are within the APE were consulted upon in 2012 for proposed work by the VA. A cultural resources survey report by Genesis Society (Jensen 2012) was submitted to the Oregon SHPO in July 2012 and concurred upon. A records search at the SHPO and an intensive-level pedestrian survey of the APE was conducted as part of that report. It was determined that no archaeological resources had been recorded or identified within one mile of the APE of this 2012 survey. In addition, neither the pedestrian survey nor communications with tribal representatives yielded any information on archaeological sites, or traditional cultural areas within or adjacent to the APE (the administration and service area of the existing cemetery).

Further research was conducted in 2016 for this SEA to identify sites not previously discussed in 2010 based on the prior proposed action. The 2016 research did not identify any sites.

There is one historic site within the APE for this proposed project, which is the Willamette National Cemetery, including the expansion area. It was determined eligible for the National Register of Historic Places in 1983 and has 34 contributing resources and 1 noncontributing resource. The National Park Service has clarified that all National Cemeteries are exceptionally significant places, with a period of significance from 1950 to present (National Park Service 2011). Areas used for existing cemeteries, which include buildings, landscape features, roads, monuments, and markers, among other resources, are considered contributing, whereas unimproved acreage is noncontributing to the eligible cemetery. The one noncontributing resource to the Willamette National Cemetery is the 38-acre unimproved area to be developed for cemetery expansion. Once the expansion site is planned and developed, it will be included as part of the contributing resources.

Determination of Effect

The Preferred Alternative would demolish two significant contributing resources to the original Willamette National Cemetery, Building 2001 and Building 3003, which is considered an adverse effect on cultural resources under the NHPA. Removal of these two original resources of the NRHP-listed cemetery affects the integrity of those contributing resources and the historic district, thus causing an adverse effect. However, the demolition of Building 2001 and Building 3003 would not diminish the NRHP status of the cemetery; therefore, it would not be a significant impact on cultural resources.
In addition, new ground disturbance could have a minor adverse impact on potential archaeological sites. Ground disturbance includes new construction; and excavation for drainage improvements, new parking structures, and new fences. As previously discussed, the SHPO concurred in 2012 that there were no archaeological resources within the administration/service area of the existing cemetery. See Attachment 4 for a map of the surveyed area conducted in 2012 that identified no archaeological resources. Additionally, there are no Traditional Cultural Properties or Native American sacred places currently known to exist within the APE. It is recommended that there be coordination between the agencies and the involvement of professional archeologists prior to and during all excavations in case of unanticipated discoveries.

On behalf of the VA we are respectfully requesting any new information regarding known Native American sacred sites located on or near the cemetery. Please let us know if you have any concerns regarding the development of the cemetery expansion site and the upgrade of facilities on the existing cemetery. If you have any questions, please contact me at 202-632-5879 or email at glenn.elliott@va.gov. We look forward to your response.

Sincerely,

Glenn Elliott
Environmental Engineer P P/M

cc: David Harrelson, Tribal Historic Preservation Officer
Native American Tribes Distribution List

Honorable Cheryle A. Kennedy, Chairwoman
The Confederated Tribe of Grand Ronde Community of Oregon
9615 Grand Ronde Road
Grande Ronde, OR 97347

David Harrelson, Tribal Historic Preservation Officer
The Confederated Tribe of Grand Ronde Community of Oregon
8720 Grand Ronde Road
Grande Ronde, OR 97347

Honorable Austin Greene, Jr., Chairman
Confederated Tribes of the Warm Springs Reservation of Oregon
P.O. Box C
Warm Springs, OR 97761

Robert Brunoe
Tribal Historic Preservation Officer
Confederated Tribes of the Warm Springs Reservation of Oregon
P.O. Box C
Warm Springs, OR 97761

Delores Pigsley, Chairwoman
Confederated Tribes of Siletz Indians of Oregon
P.O. Box 549
Salem, OR 97380
February 20, 2018

Mr. Glenn Elliott
Department of Veterans Affairs
, OR

RE: SHPO Case No. 18-0176
Veterans Affairs, Willamette National Cemetery
demo 2 buildings, replace signage, new construction
, multnomah/Clackamas County

Dear Mr. Elliott:

Thank you for your submittal regarding the Veterans Affairs, Willamette National Cemetery project as referenced above. We concur with the determination that Willamette National Cemetery is eligible for and listed in the National Register of Historic Places. We also concur that the project represents an adverse effect to the built environment and we look forward to developing an appropriate approach towards mitigation.

While there is significant flexibility in mitigation, our office relies on the following guiding principles that include but are not limited to:

1. Mitigation that consists of some form of additional documentation such as Oregon State Level Documentation, HABS/HAER Documentation, or additional survey and evaluation of associated historic properties. The additional documentation that is ultimately chosen as mitigation is dependent on the property, the scope of the undertaking, and other project specifics.
2. Mitigation that is relevant to the affected property, located on-site if possible or effective, and commensurate with the scale of the adverse effect.
3. Mitigation that provides some tangible measure of education and information for the public that is as accessible as possible.

Please feel free to visit our website to view some examples of successful past mitigation projects: 

Additionally, we would like to request additional consultation once the design plans for the new Building 3005 are available. Our response is to assist you with your responsibilities under Section 106 of the National Historic Preservation Act. Local regulations, if any, still apply and review under local ordinances may be required. Please contact our office at your earliest convenience to begin a dialogue regarding mitigation and next steps for the project.

Sincerely,

Jessica Gabriel
Historian
(503) 986-0677
Jessica.Gabriel@oregon.gov
February 22, 2018

Mr. Glenn Elliott
Department of Veterans Affairs
, OR

RE: SHPO Case No. 18-0176
Veterans Affairs, Willamette National Cemetery
demo 2 buildings, replace signage, new construction
, multnomah/Clackamas County

Dear Mr. Elliott:

Our office recently received a request to review the project referenced above. We have reviewed the information and concur that a good faith effort has been implemented and the project will likely have no effect on any significant archaeological objects or sites. Based on the information provided, additional archaeological research is not anticipated for this project.

In the unlikely event an archaeological object or site (i.e., historic or prehistoric) is encountered during project implementation, all ground disturbance at the location should cease immediately until a professional archaeologist can be contacted to evaluate the discovery. Under state law (ORS 358.905-955 & ORS 97.740) archaeological sites, objects and human remains are protected on both public and private land in Oregon. If you have not already done so, be sure to consult with all appropriate Indian tribes regarding your proposed project. If you have any questions regarding any future discovery or this letter, feel free to contact me at your convenience.

This letter refers to archaeological resources only. Comments pursuant to a review for above-ground historic resources has be sent separately.

Sincerely,

Matt Diederich, MAIS
SHPO Archaeologist
(503) 986-0577
Matthew.Diederich@oregon.gov
April 16, 2018

Ms. Christine Curran
Deputy State Historic Preservation Officer
Oregon Parks and Recreation Department
State Historic Preservation Office
725 Summer St NE, Suite C
Salem, Oregon 97301

Subject: SHPO Case No. 18-0176
Continued Consultation, Department of Veterans Affairs, Willamette National Cemetery, Proposed Cemetery Improvements, Portland, Clackamas County, Oregon

Dear Ms. Curran:

Thank you for your response regarding the Veterans Affairs, Willamette National Cemetery project as referenced above. Your office concurred that the project represents an adverse effect to the built environment. We would like to work with the SHPO to develop mitigation to offset the adverse effects.

The VA suggests as mitigation for the anticipated adverse effects that Oregon SHPO Documentation be completed for Buildings 2001 and 3003. State level documentation would include a physical description, history, maps, and photos, among other items that are identified during research.

In the original portion of the cemetery, Building 2001 would be demolished and, at the same location, Building 3005 would be constructed. Building 3003 would also be demolished; the functions in this facility would be relocated to the proposed Building 3005, which would be adjacent to the site of Building 3003. Photographs showing the current facilities and renderings of Building 3005 have been attached.

Building 2001 was built in 1951 as a one-story, superintendent’s lodge, and now functions as administrative offices. This ranch-style, wood-frame building has an L-shaped footprint and is clad with Roman brick and stucco. It has a Dutch-gable roof clad with asphalt shingles. The only alterations to the dwelling are replacement windows installed in the 1990s. The NRHP nomination for the cemetery explains that this building retains a high degree of aesthetic integrity and much of its historic character. The second original building in this group, Building 3003, was designed as the original administrative office for the cemetery, and it currently serves as the maintenance office. Similar to Building 2001, it is a one-story, ranch-style building
on a concrete foundation, and clad with Roman brick and stucco. It is capped with a hipped roof sheathed with asphalt shingles and features wide eaves. It has also undergone several modifications, including a mid-1970s L-shaped addition. The main elevation was reoriented to the side elevation, and the original entrance was in-filled. The alterations during the 1970s also removed all historic materials on the interior and dramatically changed the interior plan.

If the SHPO concurs with this mitigation strategy, then the VA will move forward with preparing a Memorandum of Agreement. If you have any questions, please contact me by telephone at 202-632-5879 or by email at glenn.elliott@va.gov. We look forward to your response.

Sincerely,

Glenn Elliott
Environmental Engineer P P/M
Attachment 3A: Building 3005 Rendering from Outer Drive Cemetery Road

Attachment 3B: Existing Photo from Outer Drive Cemetery Road
From: GABRIEL Jessica * OPRD [mailto:Jessica.Gabriel@oregon.gov]
Sent: Monday, April 30, 2018 6:17 PM
To: Elliott, Glenn (CFM)
Subject: [EXTERNAL] SHPO Case No.: 18-0176; Veterans Affairs, Willamette National Cemetery

Hi Glenn,

Nice speaking with you earlier. I took a look at the proposed mitigation and both my supervisor and I agree that the state level documentation is appropriate in this situation. My supervisor though was curious as to if you had any other preservation/maintenance activities related to historic components you might be able to include in the MOA? Is there a certain plot that needs special care or maintenance? Administrative work for updating archives? Basically, we would love to an one additional, tangible mitigation element if at all possible.

Let me know your thoughts on this; in the meantime, I’ve attached a template MOA so we can get started crafting that document. Please feel free to get in touch with any additional questions should they arise.

Thank you!
Jessica Gabriel
Historian
Oregon State Historic Preservation Office
725 Summer St NE, Suite C
Salem, OR 97301
503.986.0677
AFFIDAVIT OF PUBLICATION
State of Oregon, County of Clackamas, SS I,
Charlotte Allsop, being the duly sworn,
depose and say that I am the Accounting
Manager of the Clackamas Review, Estacada
News, Oregon City News, a newspaper of
general circulation, published at Clackamas,
Estacada, Oregon City, in the aforesaid coun-
ty and state, as defined by ORS 193.010
and 193.020, that

Marstel Day, LLC
NOTICE OF PUBLIC SCOPING MEETING -
US Department of Veterans Affairs
Ad#: 30276

A copy of which is hereto annexed, was
published in the entire issue of said
newspaper(s) for 1 week(s) in the
following issue(s):
02/14/2018, 02/15/2018

Charlotte Allsop (Accounting Manager)

Subscribed and sworn to before me this
02/15/2018.

NOTARY PUBLIC FOR OREGON

Acct #: 132061
Attn: Elizabeth Pratt
MARSTEL DAY, LLC
1727 KING STREET
ALEXANDRIA, VA 22314
Advisory Council on Historic Preservation
Electronic Section 106 Documentation Submittal System (e106) Form
MS Word format

Send to: e106@achp.gov

I. Basic information

1. **Name of federal agency** (If multiple agencies, state them all and indicate whether one is the lead agency):
   
   Veteran’s Affairs

2. **Name of undertaking/project** (Include project/permit/application number if applicable):
   
   Expansion and improvements at Willamette National Cemetery.

3. **Location of undertaking** (Indicate city(s), county(s), state(s), land ownership, and whether it would occur on or affect historic properties located on tribal lands):
   
   The project is located in Portland, Oregon, Clackamas County on VA-owned land. It will not affect historic properties located on tribal lands.

4. **Name and title of federal agency official and contact person for this undertaking**, including email address and phone number:

   Glenn Elliott, Environmental Engineer P P/M
   202-632-5879
   glenn.elliott@va.gov

5. **Purpose of notification.** Indicate whether this documentation is to:
   
   • notify the ACHP of a finding that an undertaking may adversely affect historic properties, and
   
   • invite the ACHP to participate in a Section 106 consultation.
II. Information on the Undertaking*

6. Describe the undertaking and nature of federal involvement (if multiple federal agencies are involved, specify involvement of each):

*Cemetery Expansion*
Established in 1949, Willamette National Cemetery began burial operations in 1951 on 102.63 acres donated by the State of Oregon. By 2012, this cemetery had become the seventh busiest by interment workload among the 131 national cemeteries operated by the NCA. With all available land developed, NCA purchased an adjacent parcel of 38.22 acres in August 2011 for cemetery expansion. The Preferred Alternative includes approximately 16.7 acres of the 38-acre parcel. This project would enable the VA to provide eligible Veterans and their families in the Portland metropolitan area with a National Cemetery of sufficient size and capacity to serve the projected needs in this region for 10 years.

The Preferred Alternative would include the development of approximately 23,180 gravesites in the form of pre-placed crypts, columbarium niches, and in-ground cremains; as well as memorial walls, roadways, fencing, entry gate, a stream crossing, utility systems, site furnishings, signage, landscaping and irrigation. The Preferred Alternative would include an Early Turnover phase consisting of approximately 1,200 pre-placed crypts with associated site development requirements.

*Building Demolition and Construction within the Existing Cemetery*
Within the existing cemetery, the Preferred Alternative is to demolish the Superintendent’s Building (Building 2001) and a maintenance building (Building 3003), and to replace the furnishings and signage to be consistent with the expansion area. New construction would include a new building (Building 3005) on the site of the existing Building 2001, a new covered shelter for equipment on the site of the existing Building 3003, a new employee parking lot, and a new maintenance service yard.

7. Describe the Area of Potential Effects:

Per NHPA Sections 800.4(a)(1) and 800.16(d), the Area of Potential Effects (APE) for the undertaking was determined for both the above-ground and archaeological (below-ground) historic properties.

*Archaeological Resources*
The APE for archaeological resources consists of the entire area where ground disturbance might directly affect archaeological resources, should any be located within the project area. No indirect impacts are anticipated.

*Above-ground Resources*
The APE for above-ground resources consists of the project area and the area on land from which the project area would be visible. The visual APE was determined to encompass the viewshed of the project area in which the indirect, visual effects of the project might affect above-ground properties, if any were located there.
8. Describe steps taken to identify historic properties:

Willamette National Cemetery was listed to the National Register of Historic Places in 2016 as an historic district and it includes the entirety of the National Cemetery including the expansion area. It is eligible under criteria A, C, D, and G. It has 34 contributing resources and 1 noncontributing resource. The National Park Service has determined that all National Cemeteries are exceptionally significant places, with a period of significance from 1950 to present (National Park Service, 2011). Areas used for cemeteries, which include buildings, landscape features, roads, monuments, and markers, among other resources, are considered contributing, whereas unimproved acreage is noncontributing to the eligible cemetery. The one noncontributing resource to Willamette National Cemetery is the 38-acre unimproved area to be developed for cemetery expansion. Once the expansion site is planned and developed, it would be included as a contributing resource. In addition, newly constructed resources to the existing cemetery would automatically be contributing to the historic district.

9. Describe the historic property (or properties) and any National Historic Landmarks within the APE (or attach documentation or provide specific link to this information):

Two buildings, 2001 and 3003, that will be affected are original to the campus, dating to 1951, when the cemetery was first designed. Building 2001 was built in 1951 as a one-story, superintendent’s lodge, and now functions as administrative offices. This ranch-style, wood-frame building has an L-shaped footprint and is clad with Roman brick and stucco. It has a Dutch-gable roof clad with asphalt shingles. The only alterations to the dwelling are replacement windows installed in the 1990s. The NRHP nomination for the cemetery explains that this building retains a high degree of aesthetic integrity and much of its historic character. The second original building in this group, Building 3003, was designed as the original administrative office for the cemetery, and it currently serves as the maintenance office. Similar to Building 2001, Building 3003 is a one-story, ranch-style structure on a concrete foundation, and clad with Roman brick and stucco. It is capped with a hipped roof sheathed with asphalt shingles and features wide eaves. It has also undergone several modifications, including a mid-1970s L-shaped addition. The main elevation was reoriented to the side elevation, and the original entrance was in-filled. The alterations during the 1970s also removed all historic materials on the interior and dramatically changed the interior plan.

National Register nomination is attached.

10. Describe the undertaking’s effects on historic properties:

The VA plans to demolish two contributing buildings within the existing historic district, Buildings 2001 and 3003. The VA has determined that this undertaking will have an adverse effect on Building 2001 and 3003 as contributing resources to the district.

11. Explain how this undertaking would adversely affect historic properties (include information on any conditions or future actions known to date to avoid, minimize, or mitigate adverse effects):

The demolitions of Buildings 2001 and 3003 are considered adverse effects to historic properties. Through initial consultation with the SHPO, it was recommended to the VA that State-level documentation, similar to HABS documentation.
12. Provide copies or summaries of the views provided to date by any consulting parties, Indian tribes or Native Hawai‘ian organizations, or the public, including any correspondence from the SHPO and/or THPO.

Attached are the SHPO consultation letters, and THPO consultation letters. The Oregon SHPO agrees that the undertaking will have an adverse effect on Buildings 2001 and 3003. The SHPO recommends the VA complete state-level documentation to mitigate the adverse effects.


III. Optional Information

13. Please indicate the status of any consultation that has occurred to date. Are there any consulting parties involved other than the SHPO/THPO? Are there any outstanding or unresolved concerns or issues that the ACHP should know about in deciding whether to participate in consultation?

The VA is in the process of preparing a MOA to mitigate adverse effects. The stipulations would be to conduct state-level documentation, similar to HABS. This documentation would include:

i. Architectural descriptions of no less than 500 words for each, Buildings 2001 and 3003, contributing buildings of the Willamette National Cemetery to include the following information:
   1. The physical context of the buildings and how they relate to the surrounding environment or property as a whole,
   2. The historical context of the Willamette National Cemetery concerning the relationship of the buildings or structures to the historical development of the surrounding area and to trends in local and national histories,
   3. Specific historical data, including the dates of initial planning and development, any changes in plan and evolution, individuals such as architects or developers associated with the site, and associated historical events, and
   4. A physical description of the site according to the original plan, how it has changed over time, and how it is at present.

ii. A history of Buildings 2001 and 3003 of no less than 500 words that includes at minimum the dates of construction, names of architects or builders, ownership, and changes to the property.

iii. A bibliography of sources cited and consulted,

iv. A map of the Willamette National Cemetery on the appropriate United States Geological Survey or similar map,

v. A scale site plan that includes all buildings and structures at the Willamette National Cemetery,

vi. Scale floor plans of Buildings 2001 and 3003,

vii. Digital photographs adhering to National Register digital photograph standards in lieu of large-scale film photography. Each building or structure should have no less than eight (8) photos. The photographic documentation will be completed and sent to SHPO for review of adequacy and completeness prior to any construction or changes to Buildings 2001 and 3003. Photographs will include:
   1. General or environmental views of both Buildings 2001 and 3003 to illustrate setting, landscape, adjacent buildings, and roadways,
   2. The front façade of each building,
   3. Perspective view, front and one side of each building on site,
   4. Perspective view, rear and opposing side of each building on site,
5. Detail, front entrance and/or a typical doorway,
6. Exterior details of architectural interest, and
7. Interior views to capture spatial relationships, typical spaces, and any decorative or character defining features including hallways and stairways.

viii. Relevant archival materials, including original architectural drawings or maps, brochures, historic photos, newspaper clippings, or other archival items of interest related to the property.

14. Does your agency have a website or website link where the interested public can find out about this project and/or provide comments? Please provide relevant links:

https://www.cem.va.gov/EA.asp

15. Is this undertaking considered a “major” or “covered” project listed on the Federal Infrastructure Projects Permitting Dashboard or other federal interagency project tracking system? If so, please provide the link or reference number:

n/a

The following are attached to this form (check all that apply):

   _x__ Section 106 consultation correspondence
   _x__ Maps, photographs, drawings, and/or plans
   _x__ Additional historic property information

   ___ Other:
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Mischa Connine
NOAA-National Marine Fisheries Service
1201 Northeast Lloyd Blvd.
Suite 1100
Portland, OR 97232

SUBJECT: Endangered Species Act Section 7 Informal Consultation for U.S. Department of Veterans' Affairs Proposed Expansion and Improvements at Willamette National Cemetery

Dear Ms. Connine:

In accordance with section 7 of the Endangered Species Act (ESA), the U.S. Department of Veterans Affairs (VA) requests concurrence on our determination that the Proposed Expansion and Improvements at Willamette National Cemetery may affect, but not likely to adversely affect the listed species. The U.S. Department of Veterans Affairs (VA) is in receipt of stated concerns over the proposed expansion and improvements at the Willamette National Cemetery, located at 11800 SE Mt Scott Boulevard, Portland, OR 97086. The Proposed Action involves improvements to the existing cemetery as well as expansion of gravesites and associated infrastructure of an approximately 38-acre parcel located near the intersection of SE 132nd Ave and SE Lucille Street in Portland (Figure 1).

The expansion site currently includes approximately 21 acres of hay fields that historically supported agricultural production. The remainder of the site is moderately to steeply sloping forested and riparian land. The VA conducted an aquatic resources survey in 2016 that identified one palustrine forested wetland (0.03 acres), four palustrine emergent wetlands (0.26, 0.07, 0.06, and 0.05 acres), and one palustrine scrub-shrub wetland (0.18 acres). These wetlands are associated with two small tributaries (one intermittent and one perennial) to Johnson Creek that cross the site and a small tributary (intermittent) to the perennial tributary stream. The aquatic resources survey, which is considered a Preliminary Jurisdictional Determination, characterized these streams as likely jurisdictional, as they eventually connect to the Willamette River via Johnson Creek. The expansion site falls within the Johnson Creek–Willamette River Watershed, a subwatershed within the Lower Willamette Watershed (Hydrologic Unit Code 17090012). The project site is approximately 0.70 miles from Johnson Creek.
According to the species list provided through consultation initiation with NMFS, four fish species under National Marine Fisheries Service jurisdiction were reported as potentially occurring in the Action Area, each having final designated critical habitats within the Action Area. The Table below shows the species potentially present in the Action Area.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Endangered Species Act Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steelhead trout</td>
<td><em>Oncorhynchus mykiss</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Coho salmon</td>
<td><em>Oncorhynchus kisutch</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Chinook salmon</td>
<td><em>Oncorhynchus tshawytscha</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Chum Salmon</td>
<td><em>Oncorhynchus keta</em></td>
<td>Threatened</td>
</tr>
</tbody>
</table>

The Proposed Action is to enable the National Cemetery Administration (NCA) to provide eligible veterans and their families with a National Cemetery of sufficient size and capacity to serve the projected needs in the Portland metropolitan area for 10 years. The Proposed Action is needed to meet the NCA’s goal of providing eligible veterans with reasonable access to VA burial options.

The Proposed Action was evaluated in a Site-Specific Environmental Assessment, prepared pursuant to the National Environmental Policy Act, and included the development of approximately 23,180 gravesites in the form of preplaced crypts, columbarium niches, and in-ground cremains, as well as memorial walls, utility systems, site furnishings, signage, landscaping, and irrigation within the expansion site (see Figure 2). A new roadway and parking would also be constructed.

Concurrent with the VA’s purchase of the expansion site in 2011, the City of Portland coordinated with the Trust for Public Land to place 16.7 acres of the site under perpetual conservation easements (see Figure 3). The easement areas are characterized by forested lands, riparian areas, and lengths of the headwaters of Wahoo and Deardorff Creeks. The easement was conveyed to protect the conservation value of these areas and prevent any uses that could impair such values. The City is the steward of these conservation easements and retains the right to monitor and manage the area (e.g., study wildlife, remove invasive species) and enforce the terms of the easement. The terms prohibit several activities, including chemical pesticide application, disturbance of vegetation and forest resources, placement of fill or alteration of topography, digging or excavation, and construction of permanent structures or roads. The easements stipulate rights-of-way for the construction, maintenance, and improvement of access roads to facilitate conveyance of pedestrians and vehicles across the property. The conservation easement terms allow for the construction of necessary bridges or crossings to span watercourses within the easement areas, but stipulate that they must meet City of Portland design standards.

To avoid and/or minimize potential impacts on the four fish species, best management practices (BMPs) and other mitigation measures would be incorporated into the Proposed Action including efforts against erosion and sedimentation. Implementing BMPs to reduce erosion and sedimentation effects would further minimize the potential effects on local soils and water quality. There is the potential for soil erosion to occur with some of the proposed activities, in particular, the surface drainage improvement and spoils storage site work. Clean Water Act permitting measures would reduce the potential for this erosion to occur and would prevent most stormwater runoff from reaching the streams present in the undeveloped forested portions of the property. The construction contractor would implement the following, as appropriate and necessary, to protect surface water quality, as part of permitting requirements:
Figure 2. Proposed Cemetery Elements on the Expansion Site
Figure 3. Conservation Easements at the Expansion Site
• Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming sources of erosion.
• Minimize the disturbance of steep slopes.
• Minimize erosion during and after soil disturbance using BMPs such as temporary seeding and planting, final vegetative cover, mulches, compost blankets, erosion control blankets and mats, and soil tackifiers.
• Use water, a soil-binding agent, or other dust-control technique as needed to avoid wind-blown soil.
• Preserve existing vegetation and revegetate open areas when practical. Do not remove temporary sediment control practices until final vegetative cover or permanent stabilization measures are established.
• Maintain a natural vegetative buffer of at least 50 feet between disturbance areas and jurisdictional waters of the United States.
• Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion. BMPs used for these purposes include diversion of stormwater run-on; trench drains, slope drains, French drains, and subsurface drains; temporary diversion dikes; earthen berms; grass-lined or armored channels (such as turf reinforcement mats); drainage swales; energy dissipaters; rock outlet protection; drop inlets; and check dams.
• Control sediment, as needed, along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internally and at the site boundary by using BMPs such as sediment fences, buffer zones, sediment traps, rock filters, compost berms/compost socks, fiber wattles, storm drain inlet protection, and temporary or permanent sedimentation basins.
• Design impervious surfaces to drain to stormwater management systems.
• 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 construction.

Several other improvements would enhance the aesthetics and environmental sustainability of the original cemetery and the expansion site. These other site-specific elements include the following, which would have mitigation benefits:

• Insufficient surface drainage affects several areas on the original Willamette National Cemetery. The Proposed Action would include an assessment of these problem areas and the development of a Drainage Improvement Plan for the site. Drainage improvement measures would be designed in accordance with VA Program Guide PG-18-3, Topic 4, “Foundation Drainage.”
• Construction and expansion of a National Cemetery require ample storage for spoils on site. The Proposed Action would stabilize the existing spoils storage area through excavation, compaction, and stabilization measures. Development of a new Spoils Management Plan and a new spoils storage area would accommodate cemetery spoils for at least 10 years.
• The Proposed Action would avoid, to the extent practicable, the on-site jurisdictional wetlands. Existing conservation easements on the expansion site (see Figures 2 and 3) would preclude disturbance and development within most wetland areas and sensitive habitats. However, the development of a stream crossing to facilitate access to the expansion site may affect jurisdictional wetlands. The VA would develop mitigation measures to ensure compliance with federal and state regulations (Section 404 of the Clean Water Act and Oregon’s Removal-Fill Law). These mitigation measures would minimize impacts on wetlands, streams, and fish species.
The Proposed Action would adhere to Section 404 of the Clean Water Act and Oregon Removal-Fill Law (Oregon Revised Statute [ORS] 196.795-990) permitting requirements and associated BMPs and would assess the functions and values of the proposed impact area, develop steps to minimize these adverse impacts, and promote surface water quality following the initial site preparation and construction of the structure.

Current designs would preserve many existing features of the site, such as hills, wetlands, streams, and trees in the conservation areas. Stormwater collection ponds would be naturalized to encourage wildlife habitat and preserve the natural setting of the cemetery.

The following construction BMPs would be implemented to control and minimize fugitive dust emissions at the site, which would reduce downstream runoff as well:

- 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.
- Develop a spoils management plan. This would entail stabilizing existing spoils storage areas through excavation, compaction, and stabilization measures.
- Visually monitor all construction activities regularly, in particular during extended periods of dry weather, and implement dust-control measures, when appropriate.

The use of BMPs to reduce erosion and sedimentation impacts would minimize impacts on water resources. Furthermore, National Pollutant Discharge Elimination System (NPDES) permits would require stormwater management, and erosion and sediment control BMPs including earth berms, detention basins, vegetative buffers, and equipment spill prevention techniques, to reduce impacts on surface waters and stormwater. Coordination with the City of Portland Environmental Services Office, Oregon Department of Environmental Quality, and U.S. Army Corps of Engineers would be necessary to obtain Section 401/404 permits under the Clean Water Act, NPDES permits, and any potential additional local permits (e.g., utility/sewer connections). These permits would identify further stormwater BMPs and methods for stormwater routing, storage, and treatment. In addition, the VA would implement management, BMP, and permitting actions to minimize potential impacts on surface water resources, as outlined below:

- Complete work near water bodies using equipment having the least impact (e.g., use of rubber-tired vehicles versus tracked vehicles).
- Ensure that no motorized equipment is operated (driven) in the water.
- Confine construction impacts to the minimum area necessary to complete the work.

None of the species would be within the boundaries of the project site. Their nearest proximity would be 0.70 miles away in Johnson Creek. Three of the four fish species would be present in Johnson Creek at some point during the year during different life stages. Steelhead trout are likely to be in Johnson Creek during winter and summer for spawning and rearing. Coho salmon would be in Johnson Creek in October through January for spawning. Chinook salmon would be present in Johnson Creek in fall and spring for rearing and migration. Chum salmon are believed to be extirpated from this side of the Columbia River, so their presence in the larger Action Area is unlikely.
Because of BMPs, adherence to the terms of the Oregon Department of Environmental Quality General Permit NPDES Stormwater Discharge Permit (No. 1200-C), adherence to Section 404 of the Clean Water Act and Oregon Removal-Fill Law (ORS 196.795-990) permitting requirements, the temporary nature of the activity, heavy vegetation along the drainages leading offsite to additionally capture and retain any potential runoff, and because of the 0.70 mile distance from the project site to Johnson Creek, impacts on steelhead trout, coho salmon, Chinook salmon, and chum salmon from the Proposed Action are not expected. For the same reasons, impacts on critical habitat Primary Constituent Elements (PCEs) are not expected and adverse effects on individuals or populations of ESA-listed fish are not expected to result from implementation of the Proposed Action. Therefore, the VA’s effect determination for activities within the Action Area is “may affect, but not likely to adversely affect” for steelhead trout, coho salmon, Chinook salmon, and chum salmon.

The VA wishes to take every opportunity to work together in a relationship where a federal, state, or local agency has decision-making authority or special expertise that can enhance the VA’s decision-making efforts. The VA is concurrently consulting with U.S. Fish and Wildlife Service for species under their jurisdiction. If you would like to request additional information regarding this proposed action, please contact me at the U.S. Department of Veterans Affairs, Office of Construction & Facilities Management, 425 I (eye) Street NW, Room 6W417a, Washington, D.C., 20001, or send via email to glenn.elliott@va.gov, or by telephone at (202) 632-5879.

Sincerely,

Glenn Elliott
Environmental Engineer
U.S. Department of Veterans Affairs
Office of Construction and Facilities Management
Regulatory Branch  
Corps No.: NWP-2018-164

Mr. Glenn Elliott  
Department of Veteran Affairs  
Office of Construction & Facilities Management  
425 I Street NW  
Washington, DC 20001  
Glenn.elliott@va.gov

Dear Mr. Elliot:

The U.S. Army Corps of Engineers (Corps) received the Department of Veteran Affairs request for Department of the Army authorization to improve a road crossing. The project is in wetlands abutting an un-named tributary located at 11800 SE Mount Scott Boulevard, Portland, Clackamas County, Oregon at Latitude/Longitude: 45.459166°, -122.531122°.

This letter verifies your project as depicted on the enclosed drawings (Enclosure 1) is authorized by Nationwide Permit (NWP) No.: 14, Linear Transportation Projects (Federal Register, January 6, 2017, Vol. 82, No.: 4) provided you obtain a 401 Water Quality Certification (WQC) decision from the Oregon Department of Environmental Quality (DEQ). You are not authorized to begin work in waters of the U.S. until you obtain and submit to our office a 401 WQC decision or waiver.

The project will place approximately 160 cubic yards of fill material within 1295 square feet of wetlands W-2 and W-3. The project will remove an existing 24-inch wide by 34 feet long culvert and replace it with a 30-inch wide by 30 feet long culvert. The road elevation in this area will be raised 3 to 4 feet, and a gravity block retaining wall will be constructed on both sides of the road to confine the roadway through the area.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed Nationwide Permit 14 Terms and Conditions (Enclosure 2); any 401 Water Quality Certification conditions, as applicable (see below); and the following special conditions:

a. Permittee shall ensure all appropriate sediment and erosion control devices are installed and in proper working order prior to construction. Devices shall remain in place until the area is stabilized and construction is complete. If necessary, sediment and erosion control may be left in place after construction is complete to facilitate
stabilization. However, upon stabilization all devices shall be removed from the area and disposed of in and upland location.

b. Permittee shall take the necessary precautions to prevent any petroleum products, chemicals, or deleterious or toxic materials from entering waterways during construction to prevent the introduction of contaminants or pollutants into the aquatic ecosystem.

c. Permittee shall restore temporarily impacted areas by re-contouring back to previously disturbed elevations and re-seeding with a broadcast of a native mix.

The Department of Veteran Affairs completed the requirements of the National Historic Preservation Act, Endangered Species Act (ESA) consultation, and Magnuson Stevens Act essential fish habitat consultation (EFH) for its involvement in the proposed activity. For the purpose of this Department of the Army authorization, we have determined this project will comply with the requirements of these laws provided you comply with all of the permit general and special conditions.

At this time, the DEQ has not completed a 401 WQC decision for this project. Before proceeding with the work authorized by this NWP, you must obtain a 401 WQC or certification waiver from the DEQ. Please contact the DEQ regarding this requirement at: 401 Water Quality Certification Coordinator, Oregon Department of Environmental Quality, 700 NE Multnomah Street, Suite 600, Portland, Oregon, 97232, by telephone at (503) 229-6414, or visit http://www.oregon.gov/deq/pages/index.aspx. After obtaining a 401 WQC or a waiver for certification, you must submit a copy of the 401 WQC or waiver to our office. The conditions of the 401 WQC will become conditions of this NWP verification. This NWP verification will become effective upon our receipt of the 401 WQC. You may then proceed with construction.

The proposed work is not authorized by this NWP if the DEQ denies the 401 WQC. Please contact us if the 401 WQC is denied.

If the DEQ has not provided you with a 401 WQC decision within twelve (12) months of the date of this letter, your requirement to obtain a 401 WQC becomes waived. You may then proceed with construction.

Please note, Portland District NWP Regional General Condition 3, Cultural Resources and Human Burials Inadvertent Discovery Plan, details procedures should an inadvertent discovery occur. You must ensure that you comply with this condition during the construction of your project.
The verification of this NWP is valid until March 18, 2022, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date and you have commenced or are under contract to commence this activity before March 18, 2022, you will have until March 18, 2023, to complete the activity under the enclosed terms and conditions of this NWP. If the work cannot be completed by March 18, 2023, you will need to obtain a new NWP verification or authorization by another type of Department of the Army permit.

Our verification of this NWP is based on the project description and construction methods provided in your permit application. If you propose changes to the project, you must submit revised plans to this office and receive our approval of the revisions prior to performing the work. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act. You must also obtain all local, state, and other federal permits that apply to this project.

Upon completing the authorized work, you must fill out and return the enclosed Compliance Certification form (Enclosure 3). We would like to hear about your experience working with the Portland District, Regulatory Branch. Please complete a customer service survey form at the following address: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

If you have any questions regarding this NWP verification, please contact Mr. Brad Johnson at the letterhead address, by telephone at (503) 808-4383, or e-mail: Brad.A.Johnson2@usace.army.mil.

FOR THE COMMANDER, AARON L. DORF, COLONEL, CORPS OF ENGINEERS, DISTRICT COMMANDER:

For Shawn H. Zinszer
Chief, Regulatory Branch

Enclosures

cc:

Oregon Department of State Lands (Huffman)
Oregon Department of Environmental Quality (401applications@deq.state.or.us)
Balance Environmental (norman.nate@gmail.com)