# DRAFT
# PROGRAMMATIC
# ENVIRONMENTAL ASSESSMENT

FOR THE

# PROPOSED SEISMIC PROGRAM
# PROJECTS

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# EXECUTIVE SUMMARY

This Programmatic Environmental Assessment (PEA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with U.S. Department of Veterans Affairs' (VA's) proposed seismic corrections for eight buildings (Buildings 1, 68, 69, 74, 75, 77, 78, and 80) at the Jonathan M. Wainwright Memorial VA Medical Center, located at 77 Wainwright Drive in Walla Walla, Washington (Walla Walla VAMC), as required by VA's Seismic Program. This PEA has been prepared as required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 et seq.), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), *Environmental Effects of the Department of Veterans Affairs Actions* (38 CFR Part 26), and VA's *NEPA Interim Guidance for Projects* (U.S. Department of Veterans Affairs 2010). Federal agencies are required to consider the environmental effects of their proposed actions. This PEA is required to determine if VA's Proposed Action would have significant environmental impacts.

VA is currently in the pre-design, information-gathering phase of the proposed seismic correction project. This PEA evaluates the potential impacts associated with broad seismic correction methods being considered by VA, and will be reviewed once additional building-specific seismic correction details are available. Where the impacts of the proposed building-specific corrections are identified and analyzed within this PEA, no further NEPA analysis would be necessary.

Prior to implementation of the building specific corrections under the Proposed Action and upon technical review of the PEA, VA would perform supplemental, tiered NEPA analyses, if necessary, to address and to complete the evaluation of the potential effects of the proposed building-specific correction, if not accurately covered in this PEA.

### PROPOSED ACTION

VA proposes to rectify the eight seismically deficient buildings (Buildings 1, 68, 69, 74, 75, 77, 78, and 80) at the Walla Walla VAMC campus to meet current VA seismic standards. Seismic correction methods being considered include:

- **Seismic Retrofit –** retrofit and renovation of seismically deficient buildings to meet VA seismic standards.
- **Replacement –** demolition and replacement of seismically deficient buildings with new buildings in their current locations that meet the VA seismic standards.
- **Consolidation –** demolition of multiple seismically deficient buildings and consolidation of their building functions into a new singular building that meets the VA seismic standards.

While one method may be selected for all of the buildings, VA anticipates a combination of seismic correction methods would be used.

The interior spaces of the buildings would be modified/constructed to suit VA's planned use of the buildings and new mechanical systems would be installed. Following the completion of the proposed seismic corrections, VA would use the retrofitted/new buildings for administrative support functions for the Walla Walla VAMC, similar to their existing uses.

Other than Buildings 1 and 75, the eight seismic project buildings are mostly occupied and house administrative and support services required for the operation of the VAMC. Consequently, it is anticipated that the seismic correction projects would be conducted in phases over a period of up to 10 years to minimize campus disruption and to support continued campus operations. Temporary swing space (rented office trailers) would be required for the duration of the construction project.

**PURPOSE AND NEED**

The purpose of the Proposed Action is to address seismic deficiencies for eight buildings on the Walla Walla VAMC campus to support VA's mission to provide continuing health care and administrative services to area Veterans.

Executive Order (EO) 12941 of 1994 requires all federal agencies to develop an inventory of their owned and leased buildings in order to identify and mitigate unacceptable seismic risks to those buildings. EO 13717 of 2016 was issued to establish a Federal Earthquake Risk Management Standard. EO 13717 requires federal agencies to adhere to seismic design requirements of current national building codes and standards and encourages agencies to exceed the minimum required codes and standards to ensure that buildings are fully earthquake resilient.

In compliance with EO 13717, VA issued Directive 7512 to establish a policy for the seismic safety of VA buildings. Under VA Directive 7512, seismic compliance for existing buildings requires adoption of the latest version of the *Standards of Seismic Safety for Existing Federally Owned and Leased Buildings*. On November 1, 2019, VA released VA Handbook 18-8: *Seismic Design Requirements* to help inform facility planning with regard to seismic standards. This guidance was revised May 1, 2020.

Walla Walla, Washington is identified on the Federal Emergency Management Agency (FEMA) Earthquake Hazard Map for the Western U.S. as being located within an area near several active seismic faults, with a moderately high potential for ground shaking. Buildings in this earthquake hazard area are subject to the IBC Seismic Design Class C (may experience strong shaking) requirements.

The Proposed Action is needed to ensure the Walla Walla VAMC campus facilities can provide life-safety protection to Veterans, employees, and other building occupants and can maintain health care and administrative operations in critical and essential facilities in the event of a major earthquake (VA Directive 7512).

VA's seismic inventory and evaluation efforts required by EOs 12941 and 13717, VA Directive 7512 and VA Handbook 18-8 identified eight buildings at the Walla Walla VAMC campus (the Seismic Program project buildings) as Seismic Deficiency Category 1 (in danger of collapse) or 2 (may not collapse, but may be heavily damaged). The eight project buildings were all constructed prior to modern seismic codes and do not meet current seismic building standards. As a result, they do not conform to current rules, standards, and design criteria for building seismic structural performance, and are at risk for significant damage or failure from a seismic event.

**ALTERNATIVES**

Seven of the eight seismic project buildings are contributing resources to the National Register of Historic Places (NRHP)-listed Fort Walla Walla Historic District. VA initially considered seismically upgrading (retrofitting) the interiors of all of the buildings, with little or no exterior modification, to retain the historic integrity of the buildings. However, the seismic structural deficiencies of the buildings are substantial and the required upgrades are extensive. As a result, the estimated construction costs for the required upgrades are very high, similar to or higher than the estimated costs for the demolition of the existing buildings and the construction of new buildings. Consequently, VA expanded the considered seismic correction methods to include potential demolition and replacement of the project buildings with new construction, including a one-to-one building replacement and combining of multiple building functions into single, larger buildings.

This PEA evaluates in depth two alternatives: the Proposed Action (seismic corrections alternatives) and the No Action Alternative.

## Proposed Action

The Proposed Action would include the seismic retrofit, replacement, and/or consolidation of the eight seismically-deficient project buildings. VA is considering various combinations of these seismic correction methods for the project buildings based on the VAMC's operational needs, cost, timing, and potential impact to the Historic District. The following paragraphs briefly describe the anticipated elements of the various seismic correction methods being considered.

### *Seismic Retrofit*

Seismic retrofit correction would include the demolition of the interior of the project building, the installation of seismic upgrades in the building interior to meet the seismic standards, and new interior construction/build out designed for the planned future use of the building. Little to no exterior building modification would be conducted to retain the historic integrity of the project building and the architectural cohesiveness of the Historic District.

### *Replacement*

Replacement correction would include the demolition of the seismically deficient project building and the construction of a new replacement building that meets current seismic criteria. The replacement building would be of similar size and location as the building that it would replace, but would be designed and constructed in accordance with modern building practices and codes, including the current applicable seismic standards. The building would be designed to be generally consistent/compatible with the architectural character of the Historic District, with red brick cladding on the side facing the parade grounds, to minimize the visual/aesthetic impact on the Historic District.

### *Consolidation*

Consolidation correction would include the demolition of multiple seismically deficient project buildings and the construction of one new, larger building that meets the current seismic criteria. Functions of the existing buildings would be consolidated in the new building. The new building would be of similar size to the combined square footage of the existing consolidated buildings and would be constructed in the general location of one of the existing buildings being consolidated. The buildings would be no more than three stories tall. The new consolidated building would be designed and constructed in accordance with modern building practices and codes, including the current applicable seismic standards. The building would be designed to be generally consistent/compatible with the architectural character of the Historic District, with red brick cladding on the side facing the parade grounds, to minimize the visual/aesthetic impact on the Historic District.

### *Building Accessory Improvements*

In addition to the eight seismic project buildings, other accessory building improvements, such as covered connecting corridors and uncovered walkways that connect the Site buildings, courtyards within and between Buildings 68 and 69, two trailer offices (Buildings T-1 and T-2) located adjacent to Building 77, and landscaped areas, may be altered, demolished, and/or replaced as part of the Proposed Action. Utility infrastructure upgrades to support the seismic corrections may also be required. VA would also rent temporary office trailers for use as swing space for displaced services during construction.

## No Action Alternative

Under the No Action Alternative, seismic corrections and building accessory improvements for the Walla Walla VAMC campus would not be implemented. VA would continue to use the eight project buildings with no seismic upgrades. The buildings would remain structurally deficient and at risk of significant damage or failure from a seismic event.

This alternative would not improve patient, staff and visitor safety in the event of a major earthquake and would not enable the facility to return to operation quickly in the aftermath of such a seismic event, and

thus would not meet the requirements of VA's Seismic Program or the purpose of or need for the Proposed Action. However, the No Action Alternative was evaluated in this PEA as required under the CEQ regulations; it also provides a benchmark for comparing potential impacts of the Proposed Action.

**AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

The affected environment of the Site and its immediate surroundings, or the region of influence of the Proposed Action, is discussed in Section 3 of this PEA.

The two considered alternatives are evaluated in this PEA to determine their potential direct or indirect impact(s) on the physical, environmental, cultural, and socioeconomic aspects of the Proposed Action's region of influence. Technical areas evaluated in this PEA are:

- *Aesthetics*
- *Air Quality*
- *Cultural and Historic Resources*
- *Geology and Soils*
- *Hydrology and Water Quality*
- *Wildlife and Habitat*
- *Noise*
- *Land Use*
- *Floodplains, Wetlands, and Coastal Zone Management*
- *Socioeconomics*
- *Community Services*
- *Solid Waste and Hazardous Materials*
- *Traffic, Transportation, and Parking*
- *Utilities*
- *Environmental Justice*
- *Cumulative Impacts*
- *Potential for Generating Substantial Controversy*

**Potential Effects of the Proposed Action**

The Proposed Action would result in the impacts to the area as identified throughout Section 3 and summarized in the table below. These include short-term and/or long-term, potential adverse impacts to aesthetics, air quality, cultural resources, soils, hydrology and water quality, noise, solid waste and hazardous materials, and transportation and parking. All of these potential impacts are less than significant and would be further reduced through careful implementation of the general best management practices (BMPs); management, minimization and mitigation measures; and compliance with regulatory requirements, as identified in Section 4.

The Walla Walla VAMC is located within the boundaries of the Fort Walla Walla Historic District, a property listed in the NRHP. Seven of the eight Seismic Program project buildings (Buildings 1, 68, 69, 75, 77, 78, and 80) are considered contributing resources to the Historic District. In addition, archaeological sites listed and determined eligible for listing in the NRHP are located at the Walla Walla VAMC campus. Through National Historic Preservation Act (NHPA) Section 106 compliance investigations and consultation, VA determined the Proposed Action has the potential to adversely affect historic properties (the project buildings, the Historic District, and archaeological sites); however, the full range of potential adverse effects cannot be determined until the seismic correction methods have been selected and design plans have been developed. Consequently, VA is developing a Section 106 agreement document in consultation with the Washington Department of Archaeology & Historic Preservation (DAHP), which serves as the Washington State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), federally-recognized Indian Tribes with possible ancestral ties to the Walla Walla area, and other consulting parties to evaluate and address potential historic properties effects as Proposed Action seismic correction methods are selected and designed. It is anticipated that the final Section 106 agreement document will include phased project design review by DAHP and other consulting parties to avoid and/or minimize adverse effects to historic properties. If adverse effects cannot be adequately avoided or minimized, mitigation would be completed. Anticipated mitigation measures would include preparation of a Historic Resource Management Plan to assist in the stewardship of the campus's historic resources and cultural properties and building documentation in accordance with the Level II standards of the Historic American Buildings Surveys (HABS). Proposed Action construction

activities would be conducted in accordance with the Monitoring Plan and Cultural Resources Discovery Protocol (or an updated plan) to ensure that any archaeological resources that may be encountered are properly handled. With the execution of the Section 106 agreement document and implementation of its stipulations, cultural resources impacts would be less than significant. In the event that an appropriate Section 106 agreement or the Section 106 agreement document stipulations cannot be reached, additional NEPA analysis would take place to analyze potentially significant impacts to the Fort Walla Walla Historic District.

The Proposed Action would result in beneficial short-term and long-term impacts to the local socioeconomic environment. Notably, the Proposed Action would result in significant long-term beneficial socioeconomic and safety impacts by providing life-safety protection to Veterans, employees, and other occupants of the seismic project buildings and ensuring health care and administrative operations at the Walla Walla VAMC could be maintained in the event of a major earthquake.

**Potential Effects of the No Action Alternative**

Under the No Action Alternative, seismic corrections and building accessory improvements for the Walla Walla VAMC would not be implemented. No beneficial impacts attributable to the Proposed Action would occur. The eight project buildings would remain structurally deficient and at risk of significant damage or failure from a seismic event.

**Summary of Impact Analysis**

| Resource Area | Proposed Action | | | No Action |
|---|---|---|---|---|
| | Seismic Retrofit | Replacement | Consolidation | |
| **Aesthetics** | The Proposed Action would not result in an abrupt change to the visual resources of the area. New project buildings would be constructed in areas that are currently developed and would be designed to be architecturally and visually consistent/compatible with the existing Walla Walla VAMC campus.<br>Less-than-significant, long-term adverse impact. | | | None |
| **Air Quality** | Dust and particulate matter emissions during construction managed with BMPs. Vehicle and minor equipment emissions during operation would be consistent with current Site operations.<br>Less-than-significant, short-term adverse impact. | | | Similar operational emissions |

| Resource Area | Proposed Action | | | No Action |
|---|---|---|---|---|
| | Seismic Retrofit | Replacement | Consolidation | |
| **Cultural Resources** | Seven of the eight Seismic Program project buildings are contributing resources to the NRHP Fort Walla Walla Historic District. The Proposed Action has the potential to adversely affect historic properties (the project buildings, the Historic District, and archaeological sites); however, the extent of potential adverse effects cannot be determined until the seismic correction methods have been selected and designed plans have been developed. VA will execute an appropriate agreement document under Section 106 of the NHPA to avoid, minimize, and/or mitigate historic property impacts from the Proposed Action.<br>No significant impact with execution of the Section 106 agreement document and the implementation of its stipulations. In the event that an appropriate Section 106 agreement or the Section 106 agreement document stipulations cannot be reached, additional NEPA analysis would take place to analyze potentially significant impacts to the Fort Walla Walla Historic District. | | | None |
| **Geology and Soils** | Soil erosion and sedimentation impacts during construction managed with BMPs. The Proposed Action would have a significant beneficial effect of rectifying existing seismic building hazards at the campus.<br>Less-than-significant, short-term adverse impact.<br>Significant, long-term beneficial impact. | | | Eight project buildings would remain structurally deficient and at risk of significant damage or failure from a seismic event. |
| **Hydrology and Water Quality** | Stormwater runoff during construction managed through BMPs. Stormwater from the Site would discharge to the Walla Walla VAMC stormwater system. Stormwater would be managed to ensure no additional impact to the existing campus stormwater management system until such time that system can be upgraded.<br>Less-than-significant, short-term adverse impact. | | | None |
| **Wildlife and Habitat** | No habitat for federally or state-listed protected species is present at the Site.<br>No/negligible impact. | | | None |
| **Noise** | Short-term noise impacts during construction managed through BMPs. Minor operational impacts associated with vehicle traffic, HVAC systems, and grounds maintenance, similar to existing noise levels.<br>Less-than-significant, short-term adverse impact. | | | None |
| **Land Use** | Proposed Action would not change the use of the use of the Site. Site use would remain consistent with current zoning and compatible with surrounding land use.<br>No/negligible impact. | | | None |

| Resource Area | Proposed Action | | | No Action |
|---|---|---|---|---|
| | Seismic Retrofit | Replacement | Consolidation | |
| **Floodplains, Wetlands, and Coastal Zone Management** | No wetlands or floodplains located on the Site or immediately adjacent properties. Walla Walla VAMC campus is not located in a designated coastal zone.<br>No impact. | | | None |
| **Socioeconomics** | Minor short-term local beneficial impact to employment during construction.<br>Significant long-term beneficial socioeconomic and safety impacts by providing life-safety protection to Veterans, employees, and other occupants of the seismic project buildings and ensuring health care and administrative operations at the Walla Walla VAMC could be maintained in the event of a major earthquake. | | | Seismically deficient buildings would continue to pose life-safety and VAMC operational risks |
| **Community Services** | Proposed Action would not put an additional load on local community services.<br>No/negligible impact. | | | None |
| **Solid Waste and Hazardous Materials** | Elevated lead concentrations in soil around Building 1 (from lead-based paint) would be addressed by removal or installation of an exposure barrier during construction.<br>Potential other lead-impacted soil, potential-impacted soil, demolition debris, and abandoned steam tunnels with asbestos at the Site would be properly handled and managed during construction in accordance with a Soil Management Plan.<br>Site buildings contain asbestos and lead-based paint. Asbestos would be removed prior to renovation/demolition. Demolition BMPs to control dust would control lead-based paint emissions.<br>Potential impacts from petroleum and hazardous substance handling during construction and operation would be managed through BMPs and regulatory compliance.<br>Less-than-significant, short-term and long-term adverse impacts. | | | None |
| **Transportation and Parking** | Minor short-term impact from construction traffic and the temporary loss of a small number of parking spaces.<br>Proposed Action would not increase vehicle trips or parking demand at the Site following construction.<br>Less-than-significant, short-term adverse impact. | | | None |
| **Utilities** | No increase in the consumption of utilities is anticipated and no utility service upgrades would likely be required.<br>No/negligible impact. | | | None |

| Resource Area | Proposed Action | | | No Action |
|---|---|---|---|---|
| | Seismic Retrofit | Replacement | Consolidation | |
| **Environmental Justice** | Located in an area with a higher minority population and a higher low-income population. Proposed Action would have little impact on area residents.<br>No/negligible impact. | | | None |

**Cumulative Impacts**

This PEA also examines the potential cumulative effects of implementing each of the considered alternatives. This analysis finds that the Propose Action, with the implementation of the BMPs; management, minimization, and mitigation measures; and regulatory compliance measures specified in this PEA, would not result in significant adverse cumulative impacts to the human environment.

**AGENCY AND PUBLIC INVOLVEMENT**

Agencies consulted for this PEA include:

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture, Natural Resource Conservation Service
- Washington State Department of Ecology (various programs)
- Washington Department of Natural Resources (various programs)
- Washington Department of Fish and Wildlife
- Washington State Department of Transportation
- Walla Walla County Conservation District
- City of Walla Walla (various departments)
- Port of Walla Walla
- Blue Mountain Action Council
- Washington Department of Archaeology and Historic Preservation
- Fort Walla Walla Museum
- Washington Trust for Historic Preservation
- Walla Walla State Veterans Home

Responses were received from the Walla Walla State Veterans Home and Washington State Department of Ecology (WSDE). Input provided by these agencies is summarized in Section 6. Agency information and comments have been incorporated into this PEA, as and where appropriate. Copies of relevant correspondence can be found in Appendix B.

Six federally recognized Indian Tribes (Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes and Bands of the Yakama Indian Nation, Nez Perce Tribe, and Wanapum Tribe) were identified as having possible ancestral ties to the Walla Walla VAMC area. VA invited each of these Tribes to provide input regarding the Proposed Action and to participate in the NHPA Section 106 consultation. The Confederated Tribes of the Umatilla Indian Reservation expressed interest in being a consulting party in the NHPA Section 106 process. The Confederated Tribes of the Colville Reservation responded that they are not interested in participating in the NHPA Section 106 consultation. No other Tribes have responded or elected to participate in the NHPA Section 106 consultation process. Tribal input is summarized in Section 6. Tribal correspondence is provided in Appendix C.

VA will publish and distribute the Draft PEA for a 30-day public comment period, as announced by a Notice of Availability published in the Walla Walla Union-Bulletin. A copy of the Draft PEA will be made available on the VA Office of Construction and Facilities Management Environmental Program website: (https://www.cfm.va.gov/environmental/index.asp). In addition, a hard copy of the Draft PEA will be made available for public review at the Walla Walla Public Library. VA will also email notification of the release of the Draft PEA to the stakeholders previously contacted during the NEPA scoping and NHPA Section 106 consultation. The notice will contain a link to the Draft PEA on VA's website and will invite stakeholders to provide comments on the document. VA will respond to agency and public comments within the Final PEA.

# TABLE OF CONTENTS

**EXECUTIVE SUMMARY** ..... **ii**

**TABLE OF CONTENTS** ..... **xi**

**ACRONYMS AND ABBREVIATIONS** ..... **xiv**

**1.0 INTRODUCTION, INCLUDING PURPOSE OF AND NEED FOR THE ACTION** ..... **1**
1.1 INTRODUCTION ..... 1
1.2 PURPOSE AND NEED ..... 4
1.3 BACKGROUND ..... 6
1.4 DECISION-MAKING ..... 8

**2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES** ..... **9**
2.1 INTRODUCTION ..... 9
2.2 PROPOSED ACTION ..... 9
2.3 ALTERNATIVES DEVELOPMENT ..... 9
2.4 ALTERNATIVES EVALUATED IN THIS PEA ..... 10
2.4.1 PROPOSED ACTION ..... 10
2.4.2 NO ACTION ALTERNATIVE ..... 12
2.5 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION ..... 12

**3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES** ..... **13**
3.1 INTRODUCTION ..... 13
3.2 AESTHETICS ..... 13
3.2.1 EFFECTS OF THE PROPOSED ACTION ..... 14
3.2.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 14
3.3 AIR QUALITY ..... 14
3.3.1 AMBIENT AIR QUALITY ..... 14
3.3.2 STATE AND LOCAL REGULATIONS ..... 15
3.3.3 GREENHOUSE GASES AND CLIMATE CHANGE ..... 15
3.3.4 SENSITIVE RECEPTORS ..... 16
3.3.5 EFFECTS OF THE PROPOSED ACTION ..... 17
3.3.6 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 18
3.4 CULTURAL AND HISTORIC RESOURCES ..... 18
3.4.1 EFFECTS OF THE PROPOSED ACTION ..... 20
3.4.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 21
3.5 GEOLOGY AND SOILS ..... 21
3.5.1 PRIME AND UNIQUE AGRICULTURAL LAND SOILS ..... 22
3.5.2 EFFECTS OF THE PROPOSED ACTION ..... 23
3.5.3 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 23
3.6 HYDROLOGY AND WATER QUALITY ..... 23
3.6.1 SURFACE WATERS ..... 23
3.6.2 GROUNDWATER ..... 24
3.6.3 EFFECTS OF THE PROPOSED ACTION ..... 24
3.6.4 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 24
3.7 WILDLIFE AND HABITAT ..... 25
3.7.1 THREATENED AND ENDANGERED SPECIES ..... 25
3.7.2 EFFECTS OF THE PROPOSED ACTION ..... 27

3.7.3 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 27
3.8 NOISE ..... 27
3.8.1 SENSITIVE RECEPTORS ..... 28
3.8.2 EFFECTS OF THE PROPOSED ACTION ..... 28
3.8.3 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 31
3.9 LAND USE ..... 31
3.9.1 EFFECTS OF THE PROPOSED ACTION ..... 32
3.9.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 32
3.10 WETLANDS, FLOODPLAINS, AND COASTAL ZONE MANAGEMENT ..... 33
3.10.1 WETLANDS ..... 33
3.10.2 FLOODPLAINS ..... 34
3.10.3 COASTAL ZONE ..... 34
3.10.4 EFFECTS OF THE PROPOSED ACTION ..... 34
3.10.5 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 34
3.11 SOCIOECONOMICS ..... 34
3.11.1 EFFECTS OF THE PROPOSED ACTION ..... 36
3.11.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 36
3.12 COMMUNITY SERVICES ..... 36
3.12.1 EFFECTS OF THE PROPOSED ACTION ..... 37
3.12.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 37
3.13 SOLID WASTE AND HAZARDOUS MATERIALS ..... 37
3.13.1 EFFECTS OF THE PROPOSED ACTION ..... 38
3.13.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 39
3.14 TRAFFIC, TRANSPORTATION, AND PARKING ..... 39
3.14.1 PARKING ..... 43
3.14.2 EFFECTS OF THE PROPOSED ACTION ..... 44
3.14.3 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 44
3.15 UTILITIES ..... 44
3.15.1 EFFECTS OF THE PROPOSED ACTION ..... 45
3.15.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 45
3.16 ENVIRONMENTAL JUSTICE ..... 45
3.16.1 EFFECTS OF THE PROPOSED ACTION ..... 45
3.16.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 46
3.17 CUMULATIVE IMPACTS ..... 46
3.17.1 EFFECTS OF THE PROPOSED ACTION ..... 47
3.17.2 EFFECTS OF THE NO ACTION ALTERNATIVE ..... 47
3.18 POTENTIAL FOR GENERATING SUBSTANTIAL PUBLIC CONTROVERSY ..... 47

**4.0 MANAGEMENT, MINIMIZATION, AND MITIGATION MEASURES ..... 48**

**5.0 PUBLIC PARTICIPATION ..... 51**
5.1 SCOPING ..... 51
5.2 PUBLIC REVIEW ..... 51

**6.0 AGENCIES AND PERSONS CONSULTED ..... 52**
6.1 AGENCY COORDINATION ..... 52
6.2 NATIONAL HISTORIC PRESERVATION ACT SECTION 106 CONSULTATION ..... 52
6.3 NATIVE AMERICAN CONSULTATION ..... 53

**7.0 LIST OF PREPARERS ..... 54**

**8.0 REFERENCES ..... 55**

**9.0 GLOSSARY ..... 57**

## FIGURES

Figure 1-1 Regional Location Map ..... 2
Figure 1-2 Topographic Location Map (Walla Walla, WA-OR 1998) ..... 3
Figure 1-3 Aerial Photograph of Walla Walla VAMC Campus Area ..... 4
Figure 1-4 VA Seismic Zone Map ..... 5
Figure 1-5 Site Aerial Photograph ..... 7
Figure 1-6 Site Building Locations ..... 7
Figure 3-1 Sensitive Receptors ..... 17
Figure 3-2 Area Soils Map ..... 22
Figure 3-3 Estimated Peak Construction Noise Level Contour Map ..... 30
Figure 3-4 Area Zoning Map ..... 32
Figure 3-5 National Wetlands Inventory Map ..... 33
Figure 3-6 Storage Tank Locations ..... 38
Figure 3-7 Walla Walla VAMC Area Roadways ..... 41

## TABLES

Table 3-1 Historic Status of Site Buildings ..... 19
Table 3-2 Federally Listed Species in the Vicinity of the Site ..... 26
Table 3-3 MBTA Birds of Conservation Concern Species in the Vicinity of the Site ..... 26
Table 3-4 Peak Noise Levels Expected from Typical Construction Equipment ..... 29
Table 3-5 Demographic Data for Walla Walla, Walla Walla County, and Washington ..... 35
Table 3-6 Regional Income for Walla Walla, Walla Walla County, and Washington ..... 35
Table 3-7 Walla Walla VAMC Campus Area Roadways ..... 40
Table 3-8 Walla Walla VAMC Campus 2020 LOS – PM Peak Hour ..... 42
Table 3-9 Walla Walla VAMC Campus Projected 2035 LOS – PM Peak Hour ..... 43
Table 3-10 Walla Walla VAMC Campus Projected 2035 LOS – With Planned Improvements ..... 43
Table 4-1 Management, Minimization and Mitigation Measures Incorporated into the Proposed Action ..... 48

## APPENDICES

Appendix A List of Environmental Permits Required
Appendix B Agency Correspondence
Appendix C NHPA Section 106 and Native American Tribe Correspondence
Appendix D Site Photographs
Appendix E IPaC Report
Appendix F Public Notices and Comments

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AADT | annual average daily traffic |
| ACHP | Advisory Council on Historic Preservation |
| ACM | asbestos-containing materials |
| amsl | above mean sea level |
| AST | above ground storage tank |
| bgs | below ground surface |
| BMP | best management practice |
| CAA | Clean Air Act |
| CBOC | community-based outpatient clinic |
| CEQ | President's Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CSWGP | Construction Stormwater General Permit |
| CZMA | Coastal Zone Management Act |
| DAHP | Washington Department of Archeology and Historic Preservation |
| dBA | decibels, A-weighted scale |
| EA | environmental assessment |
| ESA | Endangered Species Act |
| FWWHD | Fort Walla Walla Historic District |
| IPaC | USFWS Information for Planning and Conservation |
| LBP | lead-based paint |
| LOS | level of service |
| MBTA | Migratory Bird Treaty Act |
| MOA | memorandum of agreement |
| NAAQS | National Ambient Air Quality Standards |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NHPA | National Historic Preservation Act |
| NHR | Natural Heritage Resources |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| ODW | Office of Drinking Water |
| OEIR | Office of Environmental Impact Review |
| PEA | programmatic environmental assessment |
| Phase I ESA | Phase I Environmental Site Assessment |
| REC | recognized environmental condition |
| ROW | right-of-way |
| SHPO | State Historic Preservation Office |
| SWPPP | stormwater pollution prevention plan |
| U.S. | United States of America |
| USACE | U.S. Army Corps of Engineers |
| USC | U.S. Code |
| USDA | U.S. Department of Agriculture |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| UST | underground storage tank |

| | |
|---|---|
| VA | U.S. Department of Veterans Affairs |
| VAMC | VA Medical Center |
| WDNR | Washington Department of Natural Resources |
| WDFW | Washington Department of Fish and Wildlife |
| WDOT | Washington Department of Transportation |
| WOTUS | Waters of the U.S. |
| WSDE | Washington State Department of Ecology |
| WQP | Water Quality Program |
| WWAC | Walla Walla Administrative Code |

# 1.0 INTRODUCTION, INCLUDING PURPOSE OF AND NEED FOR THE ACTION

## 1.1 Introduction

This Programmatic Environmental Assessment (PEA) has been prepared as required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 et seq.), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), *Environmental Effects of the Department of Veterans Affairs Actions* (38 CFR Part 26), and VA's *NEPA Interim Guidance for Projects* (U.S. Department of Veterans Affairs 2010). Federal agencies are required to consider the environmental effects of their proposed actions. This PEA is required to determine if VA's Proposed Action would have significant environmental impacts.

This PEA has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with VA's proposed seismic corrections for eight buildings (Buildings 1, 68, 69, 74, 75, 77, 78, and 80) at the Jonathan M. Wainwright Memorial VA Medical Center, located at 77 Wainwright Drive in Walla Walla, Washington (Walla Walla VAMC), as required by VA's Seismic Program. VA is currently in the pre-design, information-gathering phase of the proposed seismic correction project. Figure 1-1 depicts the regional location of the Walla Walla VAMC campus. Figures 1-2 and 1-3 depict the Walla Walla VAMC campus and the general location of the eight Seismic Program project buildings (Site).

This PEA evaluates the potential impacts associated with broad seismic correction methods being considered by VA (described in Section 2), and will be reviewed once additional building-specific seismic correction details are available. Where the impacts of the proposed building-specific corrections are identified and analyzed within this PEA, no further NEPA analysis would be necessary. Prior to implementation of the building specific corrections under the Proposed Action and upon technical review of the PEA,VA would perform supplemental, tiered NEPA analyses, if necessary, to address and to complete the evaluation of the potential effects of the proposed building-specific correction, if not accurately covered in this PEA.

In accordance with the cited regulations, this PEA allows for public input into the federal decision-making process; provides federal decision-makers with an understanding of potential environmental effects of their decisions, before making these decisions; identifies measures the federal decision-maker could implement to reduce potential environmental effects; and documents the NEPA process.

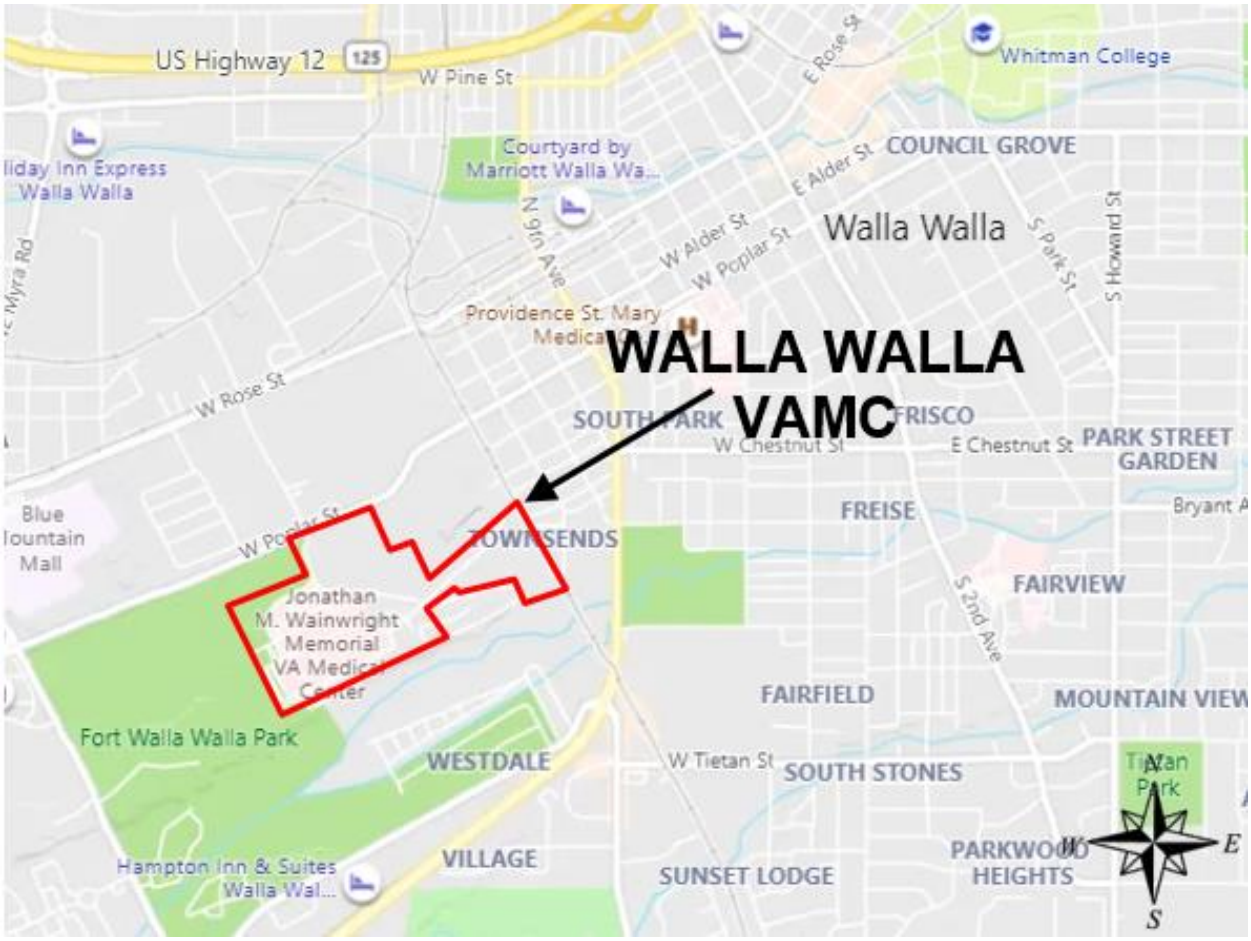



**Figure 1-1 Regional Location Map**

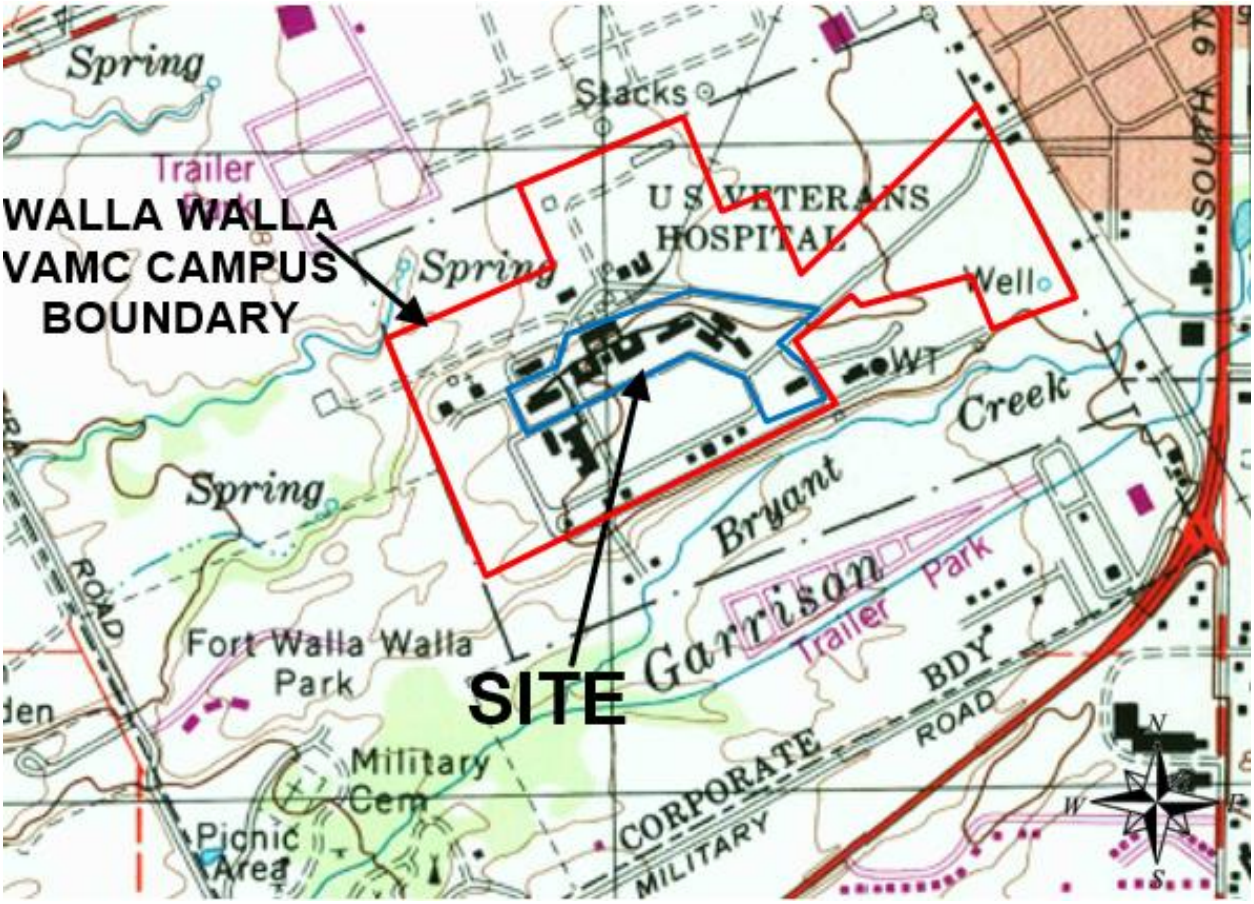



**Figure 1-2 Topographic Location Map (Walla Walla, WA-OR 1998)**

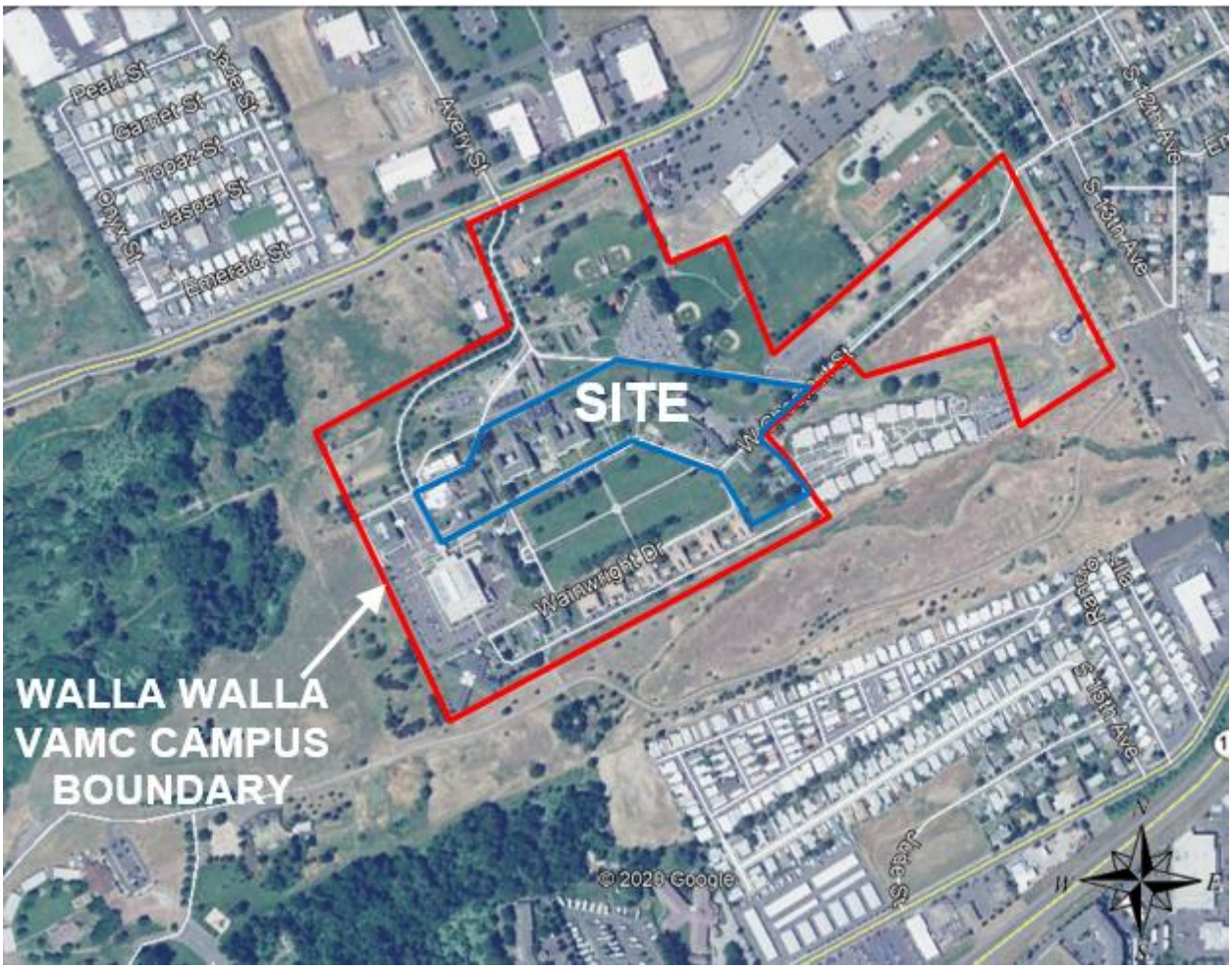



**Figure 1-3 Aerial Photograph of Walla Walla VAMC Campus Area**

## 1.2 Purpose and Need

The purpose of the Proposed Action is to address seismic deficiencies for eight buildings on the Walla Walla VAMC campus to support VA's mission to provide continuing health care and administrative services to area Veterans.

Executive Order (EO) 12941 of 1994 requires all federal agencies to develop an inventory of their owned and leased buildings in order to identify and mitigate unacceptable seismic risks to those buildings. EO 13717 of 2016 was issued to establish a Federal Earthquake Risk Management Standard. EO 13717 requires federal agencies to adhere to seismic design requirements of current national building codes and standards and encourages agencies to exceed the minimum required codes and standards to ensure that buildings are fully earthquake resilient.

In compliance with EO 13717, VA issued Directive 7512 to establish a policy for the seismic safety of VA buildings. Under VA Directive 7512, seismic compliance for existing buildings requires adoption of the latest version of the *Standards of Seismic Safety for Existing Federally Owned and Leased Buildings*. For new buildings, VA Directive 7512 requires adoption of the 2015 edition of the International Building Code (IBC). On November 1, 2019, VA released VA Handbook 18-8: *Seismic Design Requirements* to help inform facility planning with regard to seismic standards. This guidance was revised May 1, 2020.

Walla Walla, Washington is identified on the Federal Emergency Management Agency (FEMA) Earthquake Hazard Map for the Western U.S. as being located within an area near several active seismic faults, with a moderately high potential for ground shaking. Buildings in this earthquake hazard area are subject to the IBC Seismic Design Class C (may experience strong shaking) requirements. VA's Office of Facilities Planning also characterizes Walla Walla as being located within an area of moderately high seismic activity. Figure 1-4 depicts the location of the City of Walla Walla on the VA Seismic Zone Map.

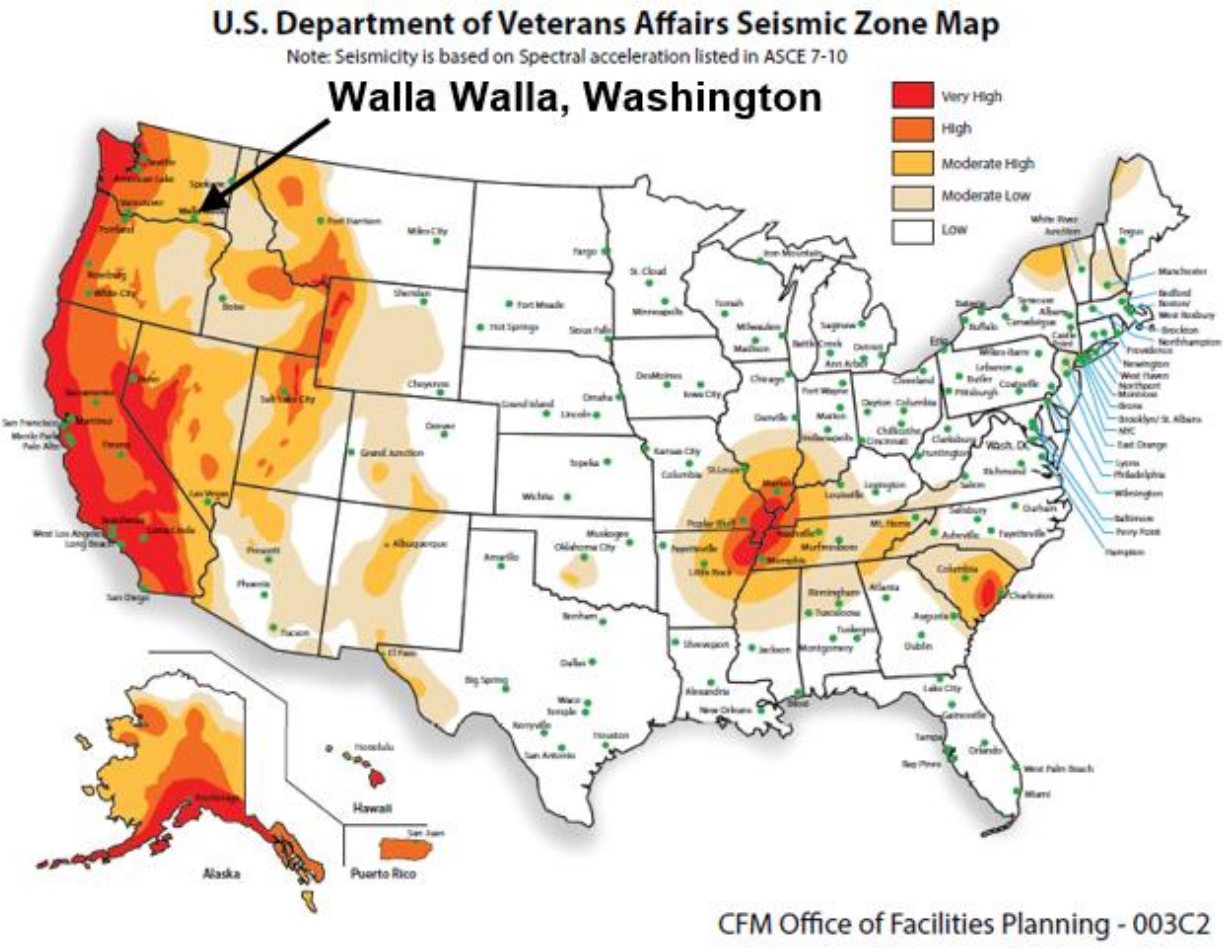



**Figure 1-4 VA Seismic Zone Map**

The Proposed Action is needed to ensure the Walla Walla VAMC campus facilities can provide life-safety protection to Veterans, employees, and other building occupants and can maintain health care and administrative operations in critical and essential facilities in the event of a major earthquake (VA Directive 7512).

VA's seismic inventory and evaluation efforts required by EOs 12941 and 13717, VA Directive 7512 and VA Handbook 18-8 identified eight buildings at the Walla Walla VAMC campus (the Seismic Program project buildings) as Seismic Deficiency Category 1 (in danger of collapse) or 2 (may not collapse, but may be heavily damaged). The eight project buildings were all constructed prior to modern seismic codes and do not meet current seismic building standards. As a result, they do not conform to current seismic structural performance rules, standards, and design criteria, and are at risk for significant damage or failure from a seismic event.

The eight Seismic Program project buildings include:

- Building 1 – Built in 1877. Former Hospital Director's Quarters. Currently vacant. Two-story structure on a concrete foundation and partial crawl space. Approximately 3,736 square feet.
- Building 68 – Built in 1906. Administration Offices Building (VISN 17 Call Center, Information Resource Management, Medical Administration, Environmental Management Services, and Veterans Service Organization Assistance). Two-story structure on a concrete foundation with a basement and attic space. Approximately 40,537 square feet.
- Building 69 – Built in 1906. Administrative Offices Building (VISN 20 Call Center, Environmental Management Services, Voluntary Services and Employee Fitness). Two-story structure on a concrete foundation with a basement and attic space. Approximately 44,618 square feet.
- Building 74 – Built in 1922. Administration Offices Building (Home Based Community Service, Care in the Community, Employee Health, IRM, Volunteer Services, and Medical Administration). Two-story structure on a concrete foundation with crawl spaces. Approximately 23,894 square feet.
- Building 75 – Built in 1922. Canteen Service and Nursing Administration Building. One-story structure on a concrete foundation with a crawl space. Approximately 5,684 square feet.
- Building 77 – Built in 1929. Administration Building (Human Resources and Personal Identify Verification Badge Issuance). One-story structure on a concrete foundation with a mechanical basement, crawl space, and attic. Approximately 3,233 square feet.
- Building 78 – Built in 1930. VA Police and Theater Building. Two-story structure on a concrete foundation with a basement. Approximately 8,745 square feet.
- Building 80 – Built in 1932. Campus Library, VA Logistics, EMS, Medical Services Administration, Acquisition and Material Management, Engineering, and Graze Food Services (leased). Two-story structure on a concrete foundation with an attic. Approximately 18,591 square feet.

## 1.3 Background

The Walla Walla VAMC is located approximately one mile southwest of the City of Walla Walla, in the southeastern portion of Washington. The Walla Walla VAMC and its supporting network provide comprehensive health care services to Veterans in eastern Washington and Oregon, and western Idaho. The Walla Walla VAMC support network includes five Community-Based Outpatient Clinics (CBOCs) in Richland and Yakima, Washington, Lewiston and Grangeville, Idaho, and La Grande, Oregon; and two telehealth clinics in Boardman and Enterprise, Oregon.

The Walla Walla VAMC property has been owned by the Federal Government since 1858 and was originally part of Fort Walla Walla, a military reservation that housed soldiers who fought in the Pacific Northwest Indian Wars. The original hospital building was constructed on the campus between 1885 and 1889. In 1921, VA took possession of the campus. Since that time, the Walla Walla VAMC campus has been transformed to meet the changing health care needs of area Veterans.

The entire Walla Walla VAMC campus is located within the National Register of Historic Places (NRHP)-listed Fort Walla Walla Historic District. All of the Seismic Program project buildings, except Building 74, are considered contributing resources to the Historic District. The buildings are located in the central portion of the Walla Walla VAMC campus, along the northern and eastern sides of the historic parade grounds. Figures 1-5 and 1-6 depict the location of the approximately 10-acre Site area that includes the eight Seismic Program project buildings and the building locations.

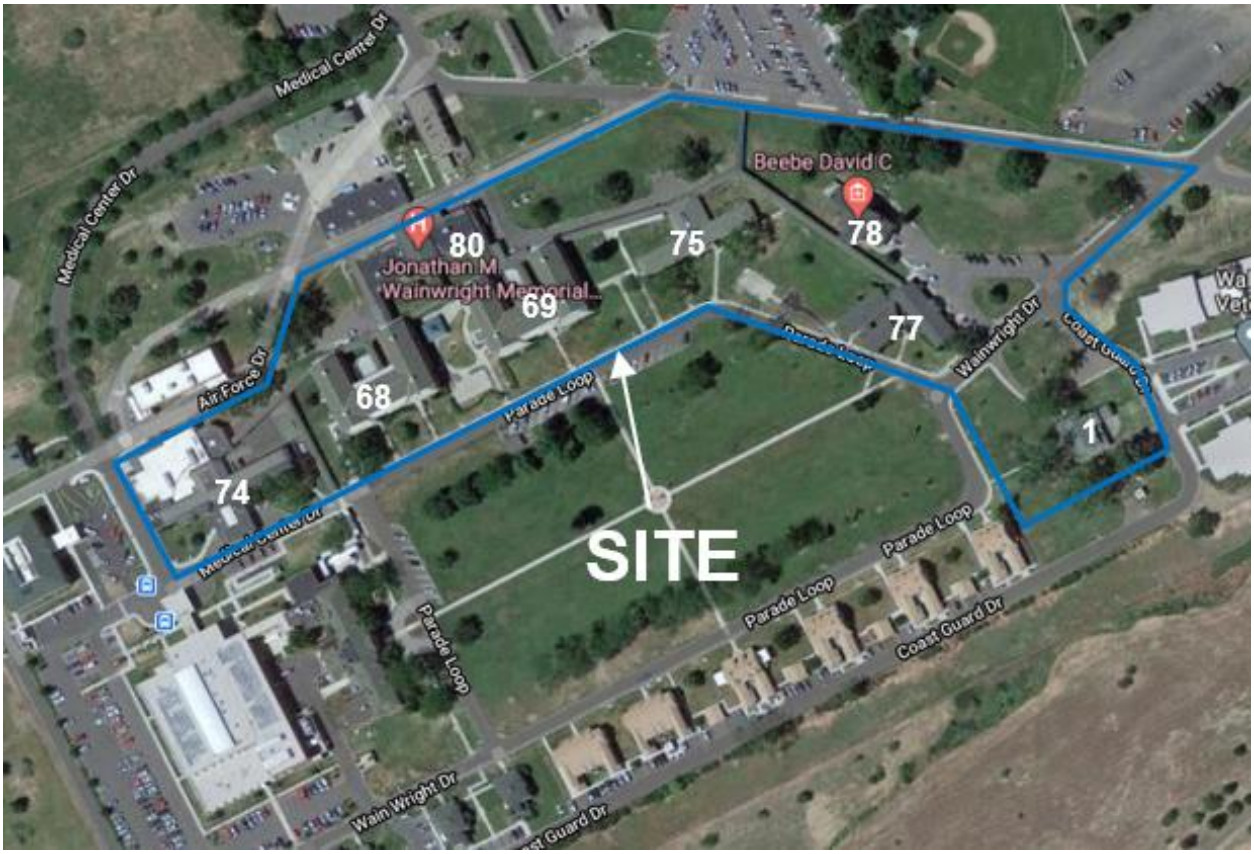



**Figure 1-5 Site Aerial Photograph**

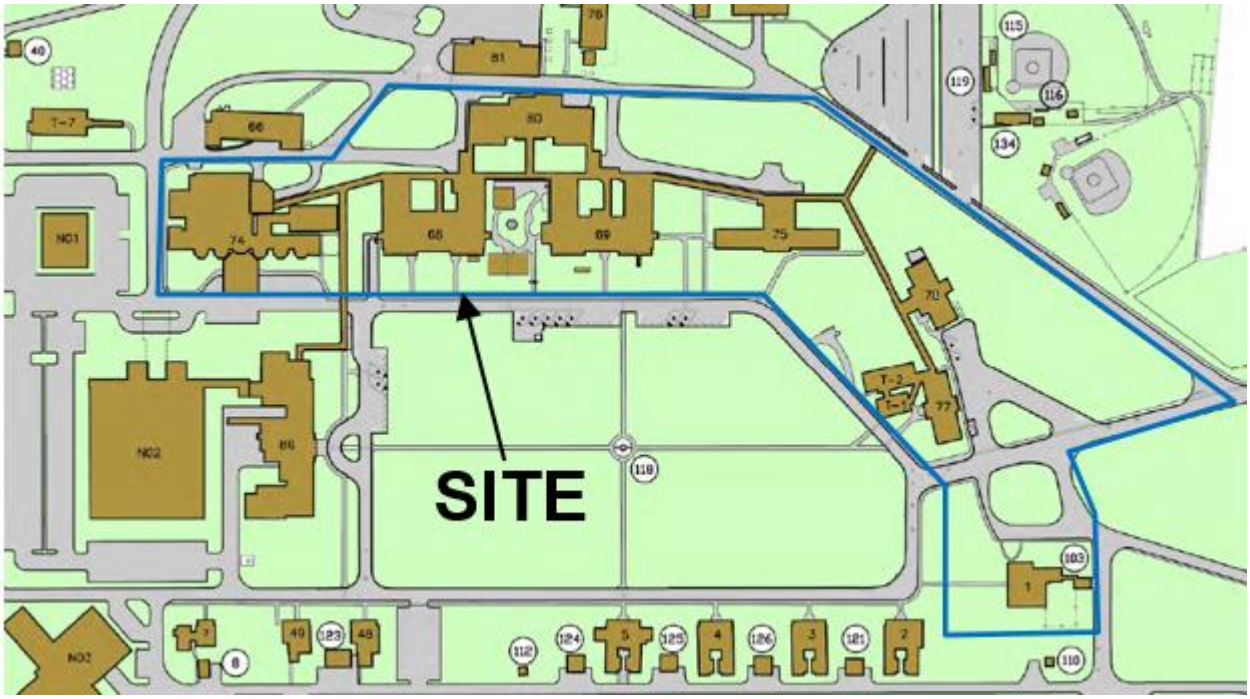



**Figure 1-6 Site Building Locations**

## 1.4 Decision-Making

This PEA has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with VA's proposed Seismic Program projects at the Walla Walla VAMC campus.

Under NEPA, VA is required to incorporate environmental considerations into their decision-making process for major federal actions they propose to undertake. This is done in accordance with the regulations identified in Section 1.1.

The analysis presented in this PEA regarding the potential environmental, cultural, and socioeconomic effects is part of the VA decision making process for consideration of implementation of the Proposed Action, and, as appropriate, implementation of any mitigation and management measures to reduce potential effects on the environment.

# 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

## 2.1 Introduction

This Section provides information regarding the Proposed Action and its alternatives, including those that VA initially considered, but eliminated, and the reasons for eliminating them. The processes developed and applied by VA provide an understanding of VA's rationale for analyzing the Proposed Action in this PEA.

## 2.2 Proposed Action

VA proposes to rectify the eight seismically deficient buildings (Buildings 1, 68, 69, 74, 75, 77, 78, and 80) at the Walla Walla VAMC campus to meet current VA seismic standards. Seismic correction methods being considered include:

- **Seismic Retrofit –** retrofit and renovation of seismically deficient buildings to meet VA seismic standards.
- **Replacement –** demolition and replacement of seismically deficient buildings with new buildings in their current locations that meet the VA seismic standards.
- **Consolidation –** demolition of multiple seismically deficient buildings and consolidation of their building functions into a new singular building that meets the VA seismic standards.

VA is considering various combinations of these seismic correction methods for the project buildings based on the Walla Walla VAMC's operational needs, cost, timing, and potential impact to the Fort Walla Walla Historic District. While one method may be selected for all of the buildings, VA anticipates a combination of seismic correction methods would be used.

The seismic retrofitted, replacement, and/or consolidation buildings would be designed and constructed to minimize the visual impacts to the Historic District. The interior spaces of the buildings would be modified/constructed to suit VA's planned use of the buildings and new mechanical systems would be installed. Following the completion of the proposed seismic corrections, VA would use the retrofitted/new buildings for administrative support functions for the Walla Walla VAMC, similar to their existing uses.

Other than Buildings 1 and 75, the eight seismic project buildings are mostly occupied and house administrative and support services required for the operation of the VAMC. Consequently, it is anticipated that the seismic correction projects would be conducted in phases over a period of up to 10 years to minimize campus disruption and to support continued campus operations. Temporary swing space (rented office trailers) would be required for the duration of the construction project.

## 2.3 Alternatives Development

VA considered alternatives to address seismic structural deficiencies of the eight project buildings. These alternatives were developed to provide life-safety protection to Veterans, employees, and other building occupants and maintain mission critical and essential functions in the event of a major earthquake. No suitable vacant space exists at the Walla Walla VAMC to relocate operations and services from the seismically-deficient project buildings. Consequently, VA considered alternatives to seismically upgrade (retrofit) or replace the project buildings.

As seven of the eight project buildings are contributing resources to the Fort Walla Walla Historic District, VA initially considered seismically upgrading (retrofitting) the interiors of all of the buildings, with little or no exterior modification, to retain the historic integrity of the buildings. However, the seismic structural deficiencies of the buildings are substantial and the required upgrades are extensive, essentially requiring the construction of a new seismically-compliant building within the exterior shell of the existing building. As a result, the estimated construction costs for the required upgrades are very high, similar to or higher than the estimated costs for the demolition of the existing buildings and the construction of new buildings that meet current seismic standards. In addition, operation and maintenance costs for seismic retrofitted buildings would be higher than those for new replacement buildings.

Consequently, VA expanded the considered seismic correction methods to include potential demolition and replacement of the project buildings with new construction, including a one-to-one building replacement and combining of multiple building functions into single, larger buildings.

## 2.4 Alternatives Evaluated in this PEA

This PEA evaluates in depth two alternatives: the Proposed Action (seismic corrections alternatives) and the No Action Alternative.

### 2.4.1 Proposed Action

The Proposed Action would include the seismic retrofit, replacement, and/or consolidation of the eight seismically-deficient project buildings. As described in Section 2.2. VA is considering various combinations of these seismic correction methods for the project buildings based on the VAMC's operational needs, cost, timing, and potential impact to the Fort Walla Walla Historic District. The following paragraphs briefly describe the anticipated elements of the various seismic correction methods being considered.

**Seismic Retrofit**

Seismic retrofit correction would include the demolition of the interior of the project building, the installation of seismic upgrades in the building interior to meet the seismic standards, and new interior construction/build out designed for the planned future use of the building. Little to no exterior building modification would be conducted to retain the historic integrity of the project building and the architectural cohesiveness of the Walla Walla VAMC Historic District.

The anticipated seismic retrofit and renovation activities would potentially include:

- Removal of the inside face (interior) of the exterior walls, ceilings, flooring and some interior walls.
- Installation of structural sheathing, new concrete shear walls, and/or metals studs along the interior perimeter of the existing exterior walls.
- Installation of additional concrete walls and footings, where needed.
- Installation of seismic blocking, anchors and connectors.
- Removal of the existing roofing materials and roof decks and installation of a new roofs with plywood structural sheathing.
- Installation of new interior walls, ceilings and flooring.
- Replacement of interior electrical, light, Information Technology (IT)/data, and fire protection systems.
- Installation of new mechanical systems.

- Removal of existing window air conditioners.
- Replacement or refurbishment of existing windows to meet seismic criteria while maintaining the building's historic character, to the extent possible.
- Repair of exterior brick and masonry wall damage.
- Minor exterior alterations to improve drainage or add Americans with Disabilities Act (ADA)-compliant ramps.
- Removal of old emergency generators and possible installation of replacement emergency generators (Buildings 78 and 80).
- Installation of new emergency generator (Building 75).
- Installation of new pad-mounted power transformers (Buildings 75 and 78)

**Replacement**

Replacement correction would include the demolition of the seismically deficient project building and the construction of a new replacement building that meets current seismic criteria. Building demolition would occur under controlled conditions to minimize the impact on the remainder of the Walla Walla VAMC campus. It is anticipated that the building would be completely demolished, including the removal of the structure, its below grade foundation, and the surrounding pavements. Demolition debris would be placed in trucks and transported to a permitted construction and demolition debris facility for disposal. Demolition materials would be recycled, where feasible.

The replacement building would be of similar size and location as the building that it would replace, but would be designed and constructed in accordance with modern building practices and codes, including the current applicable seismic standards. The building would be designed to be generally consistent/compatible with the architectural character of the Historic District, with red brick cladding on the side facing the parade grounds, to minimize the visual/aesthetic impact on the Historic District. Construction activities would include excavation for the new building foundations, installation of the foundations, construction of the building shell and the exterior façades, complete interior build out, utility installation, replacement paving, and landscaping.

**Consolidation**

Consolidation correction would include the demolition of multiple seismically deficient project buildings and the construction of one new, larger building that meets the current seismic criteria. Functions of the existing buildings would be consolidated in the new building. Building demolition would occur under controlled conditions to minimize the impact on the remainder of the Walla Walla VAMC campus. It is anticipated that each building would be completely demolished, including the removal of the structure, its below grade foundation, and the surrounding pavements. Demolition debris would be placed in trucks and transported to a permitted construction and demolition debris facility for disposal. Demolition materials would be recycled, where feasible.

The new building would be of similar size to the combined square footage of the existing consolidated buildings and would be constructed in the general location of one of the existing buildings being consolidated. The building would not be more than three stores tall. The new consolidated building would be designed and constructed in accordance with modern building practices and codes, including the current applicable seismic standards. The building would be designed to be generally consistent/compatible with the architectural character of the Historic District, with red brick cladding on the side facing the parade grounds, to minimize the visual/aesthetic impact on the Historic District. Construction activities would include excavation for the new building foundations, installation of the foundations, construction of the building shell and the exterior façades, complete interior build out, utility installation, replacement paving, and landscaping.

**Building Accessory Improvements**

In addition to the eight seismic project buildings, other accessory building improvements, such as covered connecting corridors and uncovered walkways that connect the Site buildings, courtyards within and between Buildings 68 and 69, two trailer offices (Buildings T-1 and T-2) located adjacent to Building 77, and landscaped areas, may be altered, demolished, and/or replaced as part of the Proposed Action. Utility infrastructure upgrades to support the seismic corrections may also be required. VA would also rent temporary office trailers for use as swing space for displaced services during construction.

### 2.4.2 No Action Alternative

Under the No Action Alternative, seismic corrections and building accessory improvements for the Walla Walla VAMC campus would not be implemented. VA would continue to use the eight project buildings with no seismic upgrades. The buildings would remain structurally deficient and at risk of significant damage or failure from a seismic event.

This alternative would not improve patient, staff and visitor safety in the event of a major earthquake and would not enable the facility to return to operation quickly in the aftermath of such a seismic event, and thus would not meet the requirements of VA's Seismic Program or the purpose of or need for the Proposed Action. However, the No Action Alternative was evaluated in this PEA as required under the CEQ regulations; it also provides a benchmark for comparing potential impacts of the Proposed Action.

## 2.5 Alternatives Eliminated from Further Consideration

As described in Section 2.3, VA considered relocating operations and services from the seismically-deficient project buildings to other buildings at the Walla Walla VAMC campus; however, no suitable vacant space currently exists at the campus. In addition, continued maintenance and upkeep of the project buildings, if vacated, would be expensive and would reduce Walla Walla VAMC's financial resources to serve its primary mission of providing health care services to Veterans.

# 3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

## 3.1 Introduction

This Section describes the baseline (existing) environmental, cultural, and socioeconomic conditions at the Walla Walla VAMC campus (see Figures 1-1 through 1-6) and its general vicinity (that is, the Proposed Action's region of influence), with emphasis on those resources potentially impacted by the Proposed Action. Under each resource area (Sections 3.2 through 3.16), the potential direct and indirect effects of implementing the Proposed Action and the No Action Alternative are identified. Potential cumulative impacts are discussed in Section 3.17.

In this PEA, impacts are identified as either significant, less than significant (that is, impacts that would not be of the context or intensity to be considered significant under the CEQ regulations), or no/negligible impact. As used in this PEA, the terms "effects" and "impacts" are synonymous. Where appropriate and clearly discernible, each impact is identified as either adverse or beneficial.

The CEQ regulations specify that in determining the significance of effects, consideration must be given to both "*context*" and "*intensity*" (40 CFR 1508.27):

***Context*** refers to the significance of an effect to society as a whole (human and national), to an affected region, to affected interests, or to just the locality. Significance varies with the setting of the Proposed Action.

***Intensity*** refers to the magnitude or severity of the effect and whether it is beneficial or adverse.

In this PEA, the significance of potential direct, indirect, and cumulative effects has been determined through a systematic evaluation of each considered alternative in terms of its effects on each individual environmental resource component.

Resource areas considered in this PEA are as follows:

- *Aesthetics*
- *Air Quality*
- *Cultural and Historic Resources*
- *Geology and Soils*
- *Hydrology and Water Quality*
- *Wildlife and Habitat*
- *Noise*
- *Land Use*
- *Floodplains, Wetlands, and Coastal Zone Management*
- *Socioeconomics*
- *Community Services*
- *Solid Waste and Hazardous Materials*
- *Traffic, Transportation, and Parking*
- *Utilities*
- *Environmental Justice*
- *Cumulative Impacts*
- *Potential for Generating Substantial Controversy*

## 3.2 Aesthetics

The Walla Walla VAMC is located approximately one mile southwest of the center of the City of Walla Walla in a mixed use, residential, commercial, institutional, and recreational area. The eight seismic project buildings are located in the central portion of the Walla Walla VAMC campus. Figure 1-3 is an aerial photograph of the Walla Walla VAMC campus and surrounding area. Figure 1-5 is an aerial photograph that depicts the approximately 10-acre Site area that includes the eight seismic project buildings.

The Walla Walla VAMC property has been owned by the Federal Government since 1858 and was originally part of Fort Walla Walla, a military reservation that housed soldiers who fought in the Pacific

Northwest Indian Wars. In 1921, VA took possession of the campus and converted the Fort Walla Walla buildings into hospital facilities, resulting in a distinctive aesthetic unique to Veteran's hospitals converted from former military posts with a predominant Colonial Revival architectural style. Since that time, the Walla Walla VAMC campus has been transformed to meet the changing health care needs of area Veterans.

The eight seismic project buildings, one and two-story buildings constructed between 1877 and 1932, are some of the original Fort Walla Walla and Walla Walla VAMC buildings, as described in Section 1.3. In addition to the eight project buildings, the approximately 10-acre Site includes covered walkways that connect the project buildings, with the exception of Building 1, two trailer offices (T-1 and T-2) located adjacent to Building 77, and a courtyard between Buildings 68 and 69. The remainder of the Site predominantly consists of landscaped grassy areas with scattered trees, paved walkways, and limited paved parking adjacent to Buildings 77 and 78.

Immediately surrounding the Site are additional areas of the Walla Walla VAMC campus, with the Walla Walla State Veterans Home located adjacent to the east. Farther south and west is Fort Walla Walla Park, farther north are commercial properties, and farther northeast is the Walla Walla Center for Children and Families.

### 3.2.1 Effects of the Proposed Action

The Proposed Action would result in less-than-significant aesthetic impacts for all proposed seismic correction alternatives. Seismic retrofit correction would occur primarily within the interior of the buildings with little or no exterior building modification and negligible aesthetics impacts. Replacement correction would demolish the buildings, but would replace them with buildings of similar size and compatible architectural character, at the same location, resulting in minor aesthetic impacts. Consolidation correction would replace two or more buildings with a larger building, which would result in a greater visual change. However, the larger building would be designed to be general consistent/compatible with the architectural character of the campus, and would be no greater than three stories tall.

The Proposed Action projects could change the appearance of the Walla Walla VAMC campus and would be visible from the surrounding properties, but would not result in an abrupt change to the visual resources of the area and would be designed to be architecturally and visually consistent with the existing Walla Walla VAMC campus.

Aesthetics impacts associated with the Proposed Action construction activities would be temporary and less than significant.

### 3.2.2 Effects of the No Action Alternative

Under the No Action Alternative, no aesthetic impacts would occur as the Walla Walla VAMC campus would continue its current operations with no new construction.

## 3.3 Air Quality

### 3.3.1 Ambient Air Quality

The ambient air quality in an area can be characterized in terms of whether or not it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (USEPA) to set NAAQS for pollutants considered harmful to public health and the environment. NAAQS are provided for the principal pollutants, called "criteria pollutants," which include carbon monoxide; lead; nitrogen oxides; ozone; particulate matter; and sulfur dioxide.

Areas are designated by the USEPA as “attainment”, “non-attainment”, “maintenance”, or “unclassified” with respect to the NAAQS. Regions in compliance with the standards are designated as attainment areas. In areas where the applicable NAAQS are not being met, a non-attainment status is designated. Areas that have been classified as non-attainment, but are now in compliance, can be re-designated maintenance status if the state completes an air quality planning process for the area. Areas for which no monitoring data are available are designated as unclassified and are by default considered to be in attainment of the NAAQS.

The General Conformity Provision of the CAA, including the USEPA’s implementation mechanism, the General Conformity Rule, prohibits the Federal government from conducting, supporting, or approving any actions that do not conform to a USEPA-approved State Implementation Plan (SIP). A SIP is a state's self-authored blueprint for achieving and maintaining compliance with the goals of the CAA.

The USEPA Green Book (June 2022) indicates the portion of Walla Walla County that includes the Walla Walla VAMC campus is in full attainment of the NAAQS. Consequently, a conformity analysis pursuant to the General Conformity Provision of the CAA is not required for the proposed seismic correction project.

### 3.3.2 State and Local Regulations

The federal CAA sections 111 and 112 allow USEPA to transfer primary implementation and enforcement authority for most of the federal air quality standards to state regulatory agencies through a process called delegation. Pursuant to such delegation, the Washington State Department of Ecology (WSDE), Air Quality Program (AQP), coordinates State-wide air compliance and enforcement activities through the Washington Administrative Code (WAC). The WSDE AQP promotes air compliance through the department's district offices and the approved local program offices. WSDE AQP oversees air compliance and enforcement data management and provides required data to the USEPA.

The State of Washington has implemented several policies to reduce emissions in the transportation, electricity, and residential and commercial sectors. All sources that generate pollution are required to report their emissions (criteria pollutants and sometimes air toxics) to their local clean air agency (WSDE AQP for the Walla Walla County area). Facilities that annually pollute at least 25,000 metric tons of greenhouse gases (GHG) are required to report to the WSDE AQP.

Notice of construction (NOC) permits issued by WSDE AQP limit the amount of air pollutants a facility can emit. A NOC permit is required to install a new source of air pollution or modify an existing source of air pollution (either an increase or decrease in emissions).

The WSDE AQP requires that the owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation that is a source of fugitive emissions, if located in an attainment area and not impacting any nonattainment area (such as the Walla Walla VAMC), to take reasonable precautions to prevent the release of air contaminants from the operation, including taking reasonable precautions to prevent fugitive dust from becoming airborne and maintaining and operating the source to minimize emissions.

### 3.3.3 Greenhouse Gases and Climate Change

In December 2014, CEQ released its revised draft guidance for federal agencies on consideration of GHG emissions and the effects of climate change in NEPA reviews, which describes how federal agencies should consider the effects of GHG emissions and climate change in their NEPA decision-making documents. The guidance indicates that federal agencies should consider both the potential effect of a proposed action on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed action. The guidance indicates that the agency analysis should be commensurate with the projected GHG emissions and climate impacts of the proposed

action. It recommends that agencies consider 25,000 metric tons of carbon dioxide equivalent emissions on an annual basis as a threshold below which quantitative analysis of GHG emissions is not recommended.

### 3.3.4 Sensitive Receptors

CEQ's NEPA regulations require evaluation of the degree to which the proposed action affects public health. Sensitive receptors for air quality impacts include hospitals, schools, daycare facilities, elderly housing and convalescent facilities, and residences.

Sensitive air quality receptors in the vicinity of the Site include:

- Walla Walla VAMC users.
- Walla Walla State Veterans Home (nursing home) located easterly adjacent to the Site.
- Catholic Charities residences in the southern portion of the Walla Walla VAMC campus, located 150 to 450 feet west and south of the Site.
- Residential Rehabilitation Treatment Program (RRTP/Building 140) in the southwestern portion of the Walla Walla VAMC campus (500 feet south of the Site).
- Manufactured home residential neighborhood located approximately 600 feet south of the Site.
- Walla Walla Center for Children and Families (preschool), located approximately 750 feet northeast of the Site.
- Manufactured home residential neighborhood located approximately 850 feet north-northwest of the Site.

Sensitive air quality receptors in the vicinity of the Site are shown on Figure 3-1.

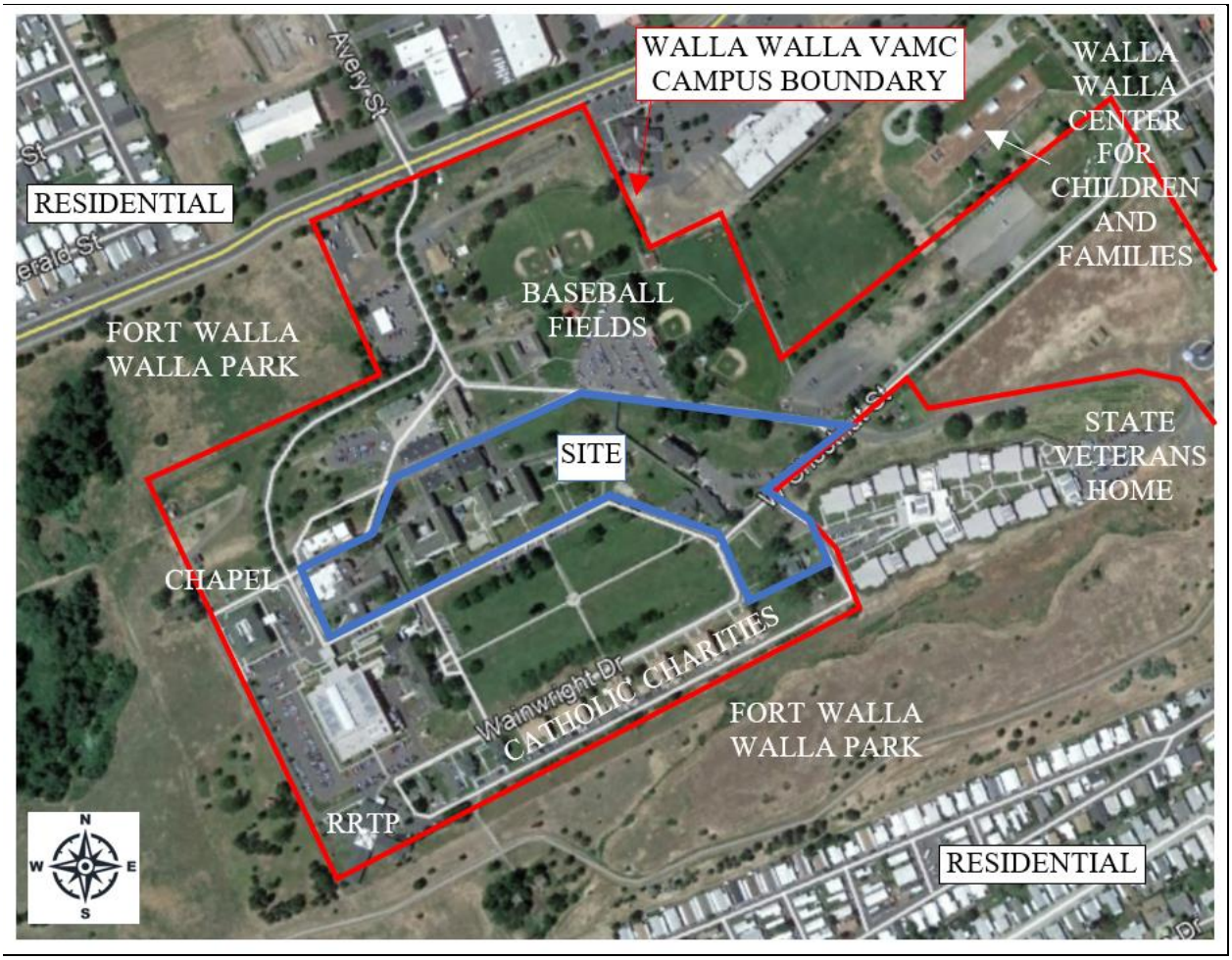



**Figure 3-1 Sensitive Receptors**

### 3.3.5 Effects of the Proposed Action

Air emissions generated from the Proposed Action would have less-than-significant direct and indirect, short-term adverse impacts to the existing air quality environment around the Walla Walla VAMC campus for all considered seismic correction methods. Impacts would include short-term air emissions as a result of demolition and construction activities.

Demolition and construction activities would be performed in accordance with federal and state air quality requirements. Demolition and construction-related emissions are generally short-term, but may still have adverse impacts on air quality, primarily due to the production of dust. Dust can result from a variety of activities, including excavation, grading, and vehicle travel on paved and unpaved surfaces. Dust from demolition and construction can lead to adverse health effects and nuisance concerns, such as reduced visibility on nearby roadways. The amount of dust is dependent on the intensity of the activity, soil type and conditions, wind speed, and dust suppression activities used. Implementing dust control measures (BMPs) substantially reduces dust emissions from demolition and construction. Demolition and construction-related emissions also include the exhaust from the operation of construction equipment, including diesel particulate matter (DPM). The use of newer construction equipment with emissions controls and minimizing the time that the equipment is idling (BMPs) reduces construction equipment exhaust emissions. Implementation of BMPs, discussed in Section 4, would minimize these anticipated less-than-significant adverse, short-term demolition and construction-related, air quality impacts.

A short-term increase in tailpipe emissions from construction vehicles and contractors traveling on public roads to and from the Walla Walla VAMC campus would also be a source of air pollutant emissions during the implementation of the Proposed Action. However; these emissions would be minor and temporary.

The structures to be renovated or demolished at the Walla Walla VAMC campus contain asbestos-containing building materials (ACM) and lead-based paint (LBP). Identified ACMs would be removed by licensed asbestos abatement contractors in accordance with the federal Clean Air Act National Emission Standards for Hazardous Air Pollutants (NESHAP) and State of Washington requirements prior to building renovation or demolition. Asbestos abatement procedures require the removal of ACM with various controls and monitoring to prevent asbestos emissions. The demolition of buildings containing LBP can result in the generation of LBP-containing dust. Standard demolition BMPs to control dust would reduce LBP dust emissions during demolition to less-than-significant levels.

No additional long-term operational air quality impacts would be associated with the Proposed Action. The retrofitted, replaced, and/or consolidated buildings would continue to be used for administrative support functions for the Walla Walla VAMC, similar to their existing uses. No new air-polluting activities or operations would be conducted at the Site and no increase in vehicle traffic and associated emissions is anticipated. The project would include the installation of more efficient utility/energy equipment, including new windows, mechanical systems, and insulation. These improvements would reduce the energy use for the buildings, resulting in a corresponding minor reduction in air emissions. Two old emergency power generators for Buildings 78 and 80 would be removed, and possibly replaced with modern, more efficient, lower emission generators, which would result in a minor improvement in air quality when in use. The generators would only be used intermittently and for short periods of time when electrical service is interrupted.

The Proposed Action would have a negligible contribution to global climate change. GHG emissions from the short-term use of vehicles and mechanical equipment during construction activities would cease after the construction has been completed. No increase in GHG emissions is anticipated during the operation of the retrofitted/replaced facilities. GHG emissions as a result of Proposed Action construction and operational activities are anticipated to be well below the threshold of 25,000 metric tons of carbon dioxide annually.

### 3.3.6 Effects of the No Action Alternative

Under the No Action Alternative, no air quality effects from the Proposed Action would occur. Air emissions from operational activities at the Walla Walla VAMC campus would remain near current levels.

## 3.4 Cultural and Historic Resources

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve throughout the country. The Section 106 consultation process begins when a federal or federally-assisted project has the potential to affect historic properties or if any historic properties are present.

The Walla Walla VAMC campus has been owned by the Federal Government since 1858 and was originally part of Fort Walla Walla, a military reservation established in 1858 that originally contained 640 acres and housed soldiers who fought in the Pacific Northwest Indian Wars. Between 1885 and 1889, the original hospital building was constructed at the military reservation. Barracks and Officers' Quarters, stables, ancillary buildings and a parade ground were constructed throughout the military reservation from 1859 until the 1880s. In 1910, Fort Walla Walla was decommissioned. After briefly reactivating during World War I, VA took possession of the military reservation in 1921. In 1921, VA

established a Veterans hospital for tuberculosis at the campus, which was expanded during World War II and the late 1940s into the General Walter D. McCaw General Hospital. The campus was renamed the Jonathan M. Wainwright Memorial VA Medical Center in 1996.

Fort Walla Walla and the Walla Walla VAMC have included multiple generations of buildings over its history. Existing Site buildings include Buildings 1, 68, 69, 74, 75, 77, 78, 80, T1, and T2. Building 1 (former Commander's Quarters) and Buildings 68 and 69 (former barracks) were built by the U.S. Army. The remaining Site buildings were constructed by VA. Table 3-1 provides the dates of construction and original function of the Site buildings.

The Fort Walla Walla Historic District (FWWHD) was listed in the NRHP in 1974. The 1974 FWWHD comprises approximately 179 acres of land and includes 15 buildings, the parade ground, the post cemetery, and one archaeological site. The entire Site is located within the Historic District and three Site buildings, Buildings 1, 68, and 69, are listed as contributing resources to the 1974 FWWHD.

**Table 3-1 Historic Status of Site Buildings**

| Building Number | Date of Construction | 1974 FWW Historic District | 2022 Revised FWW Historic District | Original Building Name or Function |
|---|---|---|---|---|
| 1 | 1877 | Contributing | Contributing | Commander's Quarters |
| 68 | 1906 | Contributing | Contributing | Company Barracks |
| 69 | 1906 | Contributing | Contributing | Company Barracks |
| 74 | 1922 | Not included | Non-contributing | Ambulatory Care Building |
| 75 | 1922 | Not included | Contributing | Semi-Ambulatory Care Building |
| 77 | 1929 | Not included | Contributing | Administration Building |
| 78 | 1930 | Not included | Contributing | Theater |
| 80 | 1932 | Not included | Contributing | Dietetics & Library |
| T-1 | 1942-1945 | Not included | Non-contributing | Offices |
| T-2 | 1942-1945 | Not included | Non-contributing | Offices |

In 2021, VA prepared a revised, updated National Register Nomination for the FWWHD that reflects changes that have occurred since 1974. The updated Nomination decreases the Historic District boundaries to approximately 98 acres by excluding most of the property now owned by the City of Walla Walla; updates the condition of the property, including reclassification of contributing and non-contributing resources; adds a second period of significance (from 1921 to 1959) to reflect changes made to the property as part of its transition from a military installation to a tuberculosis hospital for U.S. Veterans of the first World War; adds new areas of significance; and includes additional buildings and structures built within the revised boundary as well as archaeological sites that were documented after the NRHP listing in 1974. The revised National Register Nomination has been reviewed by the Washington Department of Archaeology & Historic Preservation (DAHP), the agency that serves as the Washington State Historic Preservation Office (SHPO), Indian Tribes with possible ancestral ties to the Walla Walla area, and other consulting parties. The revised Nomination is expected to be finalized in 2022. Under the revised Nomination, Site Buildings 1, 68, 69, 75, 77, 78 and 80 are all considered contributing resources to the Historic District (Table 3-1).

Archaeological investigations of the Walla Walla VAMC campus have identified materials related to Native American lifeways, Fort Walla Walla, and twentieth century use of the campus as a hospital. However, not all of the boundaries of identified archaeological sites have been completely delineated and some have been damaged during past campus construction activities. There is potential for additional

deposits at the campus. VA developed a Monitoring Plan and Cultural Resources Discovery Protocol for the Walla Walla VAMC campus in 2016, which provides procedures for monitoring ground disturbance and the identification and handling of any discovered artifacts.

### 3.4.1 Effects of the Proposed Action

The Site is located within the boundaries of the NRHP-listed Fort Walla Walla Historic District. Seven of the eight Seismic Program project buildings (Buildings 1, 68, 69, 75, 77, 78, and 80) are considered contributing resources to the Historic District. In addition, archaeological sites listed and determined eligible for listing in the NRHP are located at the Walla Walla VAMC.

The Proposed Action has the potential to adversely affect historic properties (the project buildings, the Historic District, and archaeological sites). Seismic retrofit corrections would have negligible to moderate historic property impacts, depending on whether the retrofit corrections were to be conducted in accordance with the Secretary of Interior's rehabilitation requirements (negligible impacts) or not in accordance with these requirements (minor to moderate impacts). Replacement and consolidation corrections, which would demolish historic buildings, would have greater historic property impacts. In addition, construction activities, particularly demolition and new building construction, have the potential to adversely affect identified and unidentified archaeological deposits.

The full range of potential adverse effects to historic properties cannot be determined until the seismic correction methods have been selected and design plans have been developed. This process is anticipated to occur in phases over a period of up to 10 years. Consequently, VA determined that it is appropriate to develop a Programmatic Agreement (PA) to evaluate and address potential historic properties effects as seismic correction methods are selected and designed.

On June 6, 2022, VA initiated NHPA Section 106 consultation for the Proposed Action with DAHP, the Advisory Council on Historic Preservation (ACHP), federally-recognized Indian Tribes with potential ancestral ties to the Walla Walla area (Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes and Bands of the Yakama Indian Nation, Nez Perce Tribe, and the Wanapum Tribe), the City of Walla Walla (Certified Local Government), the Fort Walla Walla Museum, the Walla Walla State Veterans Home, and the Washington Trust for Historic Preservation. As part of this effort, VA submitted information regarding the undertaking (Proposed Action), the delineation of the APE (the entire Walla Walla VAMC campus and the Walla Walla State Veterans Home), the identification of historic properties, and VA's determination of potential adverse effects to historic properties. A draft PA was included in the consultation package.

VA hosted a meeting with the consulting parties on July 20, 2022, and provided information about the Proposed Action. Representatives of DAHP and ACHP attended the consultation meeting.

The Confederated Tribes of the Umatilla Indian Reservation and Fort Walla Walla Museum responded that they would like to participate in the NHPA Section 106 consultation. The ACHP and the Confederated Tribes of the Umatilla Indian Reservation provided comments regarding the draft PA. Written comments from DAHP are also expected, but have not yet been received. Section 106 correspondence is provided in Appendix C.

VA will continue Section 106 consultation with DAHP, ACHP and the other consulting parties. It is anticipated that the final Section 106 agreement document will include phased project design review by DAHP and other consulting parties to avoid and/or minimize adverse effects to historic properties. If adverse effects cannot be adequately avoided or minimized, mitigation would be completed. Anticipated mitigation measures would include preparation of a Historic Resource Management Plan to assist in the stewardship of the campus's historic resources and cultural properties and building documentation in accordance with the Level II standards of the Historic American Buildings Surveys (HABS). Proposed

Action construction activities would be conducted in accordance with the Monitoring Plan and Cultural Resources Discovery Protocol (or an updated plan) to ensure that any archaeological resources that may be encountered are properly handled.

With the execution of the Section 106 agreement document and implementation of its stipulations, cultural resources impacts would be less than significant. In the event that an appropriate Section 106 agreement or the Section 106 agreement document stipulations cannot be reached, additional NEPA analysis would take place to analyze potentially significant impacts to the Fort Walla Walla Historic District.

### 3.4.2 Effects of the No Action Alternative

Under the No Action Alternative, the Proposed Action demolition and construction activities would not occur and there would be no cultural resources impacts.

## 3.5 Geology and Soils

The Walla Walla, Washington-Oregon United States Geological Survey (USGS) Topographic Quadrangle (Figure 1-2) indicates the majority of the Site is located on a plateau [elevation approximately 900 feet above mean sea level (amsl)]. Surficial topography slopes down from the Site to the north/northwest in the northern portion of the Site, and down from the Site to the west in the western portion of the Site. Surficial topography south of the Site slopes steeply down to the south. Regionally, the ground surface slopes down to the southwest. The nearest surface water is Bryant Creek, located approximately 200 feet south of the eastern portion of the Site. In addition, natural springs are located approximately 650 feet northwest and west of the Site.

The USGS *A Tapestry of Time and Terrain* (USGS 2000) indicates that the Walla Walla VAMC is located within the Columbia Plateau geophysical province; characterized by basaltic lava flows, which came into existence during the Cenozoic era (65 million years ago to present). In addition, the USGS Groundwater Atlas of the United States (USGS 1995) indicates that the surficial materials in the Site area include primarily unconsolidated alluvial deposits that consist of well-sorted particles that range in size from clay to boulders and range from 200 feet to 400 feet thick. The Site is not located in an area with known karstification (creation of cavities due to dissolving rock).

According to the USGS, Walla Walla County contains two major fault systems (Wallula Fault Zone and the Hite Fault System), which intersect just southeast of the City of Walla Walla. Other minor fault systems also exist in the area. The USGS Quaternary Faults internet application outlines the closest mapped active fault to the site is an unnamed (Fault Number 578B) Class B fault located about four miles northeast of the Site. A Class B fault is defined by the USGS as "Geologic evidence demonstrates the existence of Quaternary deformation, but either (1) the fault might not extend deeply enough to be a potential source of significant earthquakes, or (2) the currently available geologic evidence is too strong to confidently assign the feature to Class C, but not strong enough to assign to Class A.

Walla Walla, Washington is identified on the FEMA Earthquake Hazard Map for the Western U.S. as being located within an area near several active seismic faults, with a moderately high potential for ground shaking. Buildings in this earthquake hazard area are subject to the IBC Seismic Design Class C (may experience strong shaking) requirements. VA's Office of Facilities Planning also characterizes Walla Walla as being located within an area of moderately high seismic activity (Figure 1-4).

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey indicated soils at the Site consists of Walla Walla silt loam, lacustrine substratum complex (WIB and WID2). The Walla Walla silt loam soil series is generally characterized by well-drained silt loam and stratified loamy fine sand to silt loam soils. Walla Walla VAMC area soils are shown on Figure 3-2.

During a geotechnical engineering investigation of the Site and the surrounding areas of the Walla Walla VAMC campus in April 2020, subsurface soil conditions encountered in undisturbed areas of the Site generally consisted of silt (containing occasional gravel or clay lenses at varying depths and thickness) to depths between approximate 18 to 33 feet below ground surface (bgs), underlain by clay to depths between approximately 30 to 47 feet bgs, underlain by gravel (containing occasional silt lenses at varying depths and thickness) to at least approximately 100 feet bgs (the maximum explored depth). SCI Engineering noted shallow fill consisting of silt or sand soil was encountered beneath the Site surface in several of the soil borings and extended to depths to approximately 3 to 10 feet bgs. Manmade material (brick) was identified in the shallow fill in a few of the soil borings.

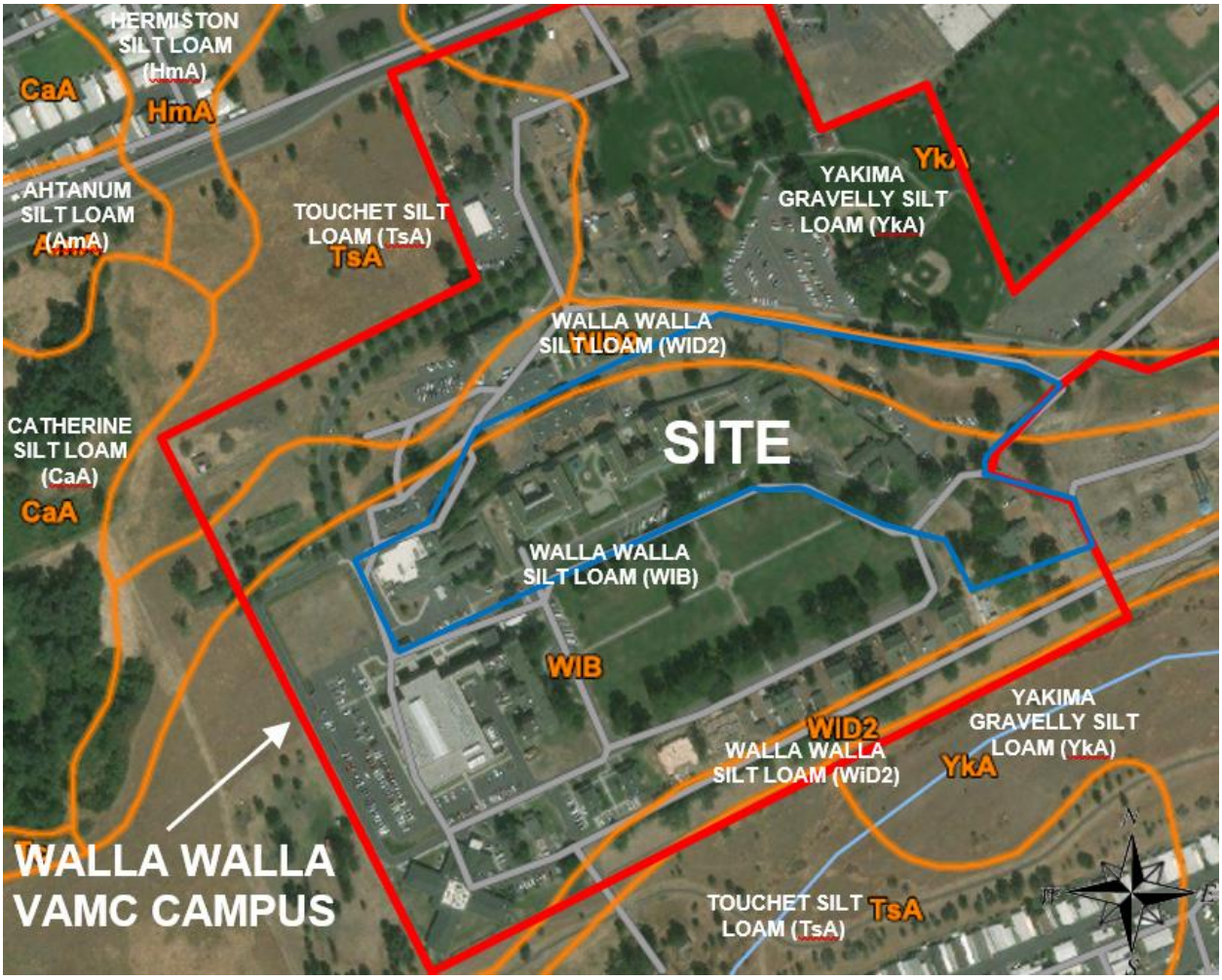



**Figure 3-2 Area Soils Map**

### 3.5.1 Prime and Unique Agricultural Land Soils

Prime and unique farmlands are regulated in accordance with the Farmland Protection Policy Act (7 USC 4201, *et seq*.) to ensure preservation of agricultural lands that are of statewide or local importance. Soils designated as prime agricultural land are capable of producing high yields of various crops when managed using modern farming methods. Prime agricultural land is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable

soil erosion. Unique agricultural lands are also capable of sustaining high crop yields and have special combinations of favorable soil and climate characteristics that support specific high-value foods or crops.

According to the USDA NRCS Web Soil Survey, the Site soils (Walla silt loam, lacustrine substratum complex soils) are classified as prime farmland and farmland of statewide importance. However, the Walla Walla VAMC is located in an area identified by the U.S. Census Bureau as an "urbanized area" and exempt from the Farmland Protection Policy Act.

### 3.5.2 Effects of the Proposed Action

The Walla Walla VAMC campus is located within an area near several active seismic faults, with a moderately high potential for ground shaking. Each of the considered seismic correction methods would rectify existing seismic deficiencies for the eight buildings at the Walla Walla VAMC campus that do not meet modern current seismic building standards and are at risk for significant damage or failure from a seismic event. The Proposed Action would have a significant beneficial effect of mitigating existing seismic hazards at the campus.

Less-than-significant adverse impacts to soils are anticipated. No major changes to topography or drainage would occur on the Walla Walla VAMC campus due to the Proposed Action. The proposed Seismic Program construction projects would be designed in concert with the Site's current topography. It is anticipated that minor grading would be required to establish relatively level areas for the construction of buildings and maintaining/improving campus drainage patterns; however, no significant cutting or filling would be required.

During construction, less-than-significant, direct and indirect, short-term soil erosion and sedimentation impacts would be possible as the proposed buildings and other project components are constructed. Construction would remove the vegetative cover, expose and disturb the soil surface, and compact the soil. The soil would then be susceptible to erosion by wind and surface runoff. Exposure of the soils during construction has the potential to result in increased sedimentation to stormwater management systems and offsite discharges of sediment-laden runoff. However, such potential adverse erosion and sedimentation effects would be prevented through utilization of appropriate BMPs (Section 4) and adherence to the WSDE National Pollutant Discharge Elimination System (NPDES) stormwater permit requirements, including the development and implementation of a site-specific Storm Water Pollution Prevention Plan (SWPPP).

Once construction is complete, no long-term erosion and sedimentation impacts would be anticipated. Areas where soils are exposed during construction would be covered with pavement or buildings, or revegetated. Stormwater would be managed through the campus stormwater management system. Additional information regarding stormwater management is provided in Section 3.6.

### 3.5.3 Effects of the No Action Alternative

Under the No Action Alternative, no demolition or construction would occur and there would be no impacts to soil, topography or geology. However, the eight seismic project buildings would remain structurally deficient and at risk of significant damage or failure from a seismic event.

## 3.6 Hydrology and Water Quality

### 3.6.1 Surface Waters

No surface waters are located on the Walla Walla VAMC campus. The nearest surface water is Bryant Creek, located approximately 200 feet south of the eastern portion of the Site. In addition, natural springs are located approximately 650 feet northwest and west of the Site. Surficial drainage from the Site is to the north/northwest in the northern portion of the Site and to the west in the western portion of the Site.

Surficial drainage south of the Site is to the south towards Bryant Creek. Regionally, the ground surface slopes down to the southwest. Refer to Figure 1-2.

A Hydrology and Hydraulics Report (HHR) was completed for the Site in March 2021. The HHR indicated that there is no central stormwater management system on the Walla Walla VAMC campus. The Walla Walla VAMC relies on approximately 26 drywells at the campus for stormwater management. Stormwater that is not captured by the drywells flows off the campus via sheet flow or collects in low-lying areas at the campus. Analysis from the HHR indicated that the drywells on or adjacent to the Site are undersized and have slow percolation rates, due to infrequent maintenance and lower than desirable permeability soils, which result in varying degrees of flooding during rain events. The HHR recommended modifications to the drywell system, including maintenance and expansion, and/or the installation of a campus-wide stormwater system.

### 3.6.2 Groundwater

According to the Groundwater Atlas of the United States, the Site region is underlain by unconsolidated deposit aquifers, which consist primarily of sand and gravel and range in thickness from less than 250 feet to more than 5,500 feet in thickness, with thickness increasing with distance from stream valleys. These shallow aquifers are underlain by the Columbia Plateau Regional Aquifer System, comprised of Grande Ronde Basalt (basaltic rocks).

The Walla Walla VAMC obtains potable water from two water supply wells located on the eastern portion of the Walla Walla VAMC campus, approximately 200 and 1,100 feet east of the Site. Water is pumped from the two VAMC wells into the campus water storage tower (also located in the eastern portion of the campus) that distributes water throughout the campus. Secondary (emergency) water supply is provided to the Walla Walla VAMC campus by the City of Walla Walla Water Distribution Division.

The Walla Walla VAMC campus is not located within an U.S. EPA-designated sole source aquifer area, per the U.S. EPA Sole Source Aquifers internet application.

During the 2020 geotechnical investigation, groundwater was encountered in two of the geotechnical soil borings on the Site. Groundwater was encountered within the clay layer in one boring at a depth of approximately 35 feet bgs and was encountered in the gravel layer at approximately 55 feet bgs in the other soil boring.

### 3.6.3 Effects of the Proposed Action

The Site buildings would be serviced by the Walla Walla VAMC campus water system, which primarily uses groundwater obtained from campus wells. However, potable water use is not anticipated to change as a result of the Proposed Action. If shallow groundwater is encountered during construction, appropriate engineering controls would be utilized to ensure there are no adverse impacts to groundwater. Proposed Action groundwater impacts would be less than significant.

The Proposed Action would not result in significant impacts to surface waters, provided that the BMPs described in Section 4 are implemented. These BMPs would control construction-related impacts of soil erosion and sedimentation and would provide proper stormwater management following the completion of the Proposed Action. Stormwater at the Site would be collected and managed with appropriate control measures to ensure no additional impact to the existing stormwater management system until such time that system can be upgraded.

### 3.6.4 Effects of the No Action Alternative

Under the No Action Alternative, no demolition and construction activities would occur and there would be no impacts to hydrology and water quality.

## 3.7 Wildlife and Habitat

The medical center area of the Walla Walla VAMC campus is developed with buildings, pavements, and grassy landscaped areas with scattered trees around a large, mostly grassy central area (former parade grounds). North and east of the medical center area, the campus primarily consists of recreational areas (baseball fields and football fields) and associated parking. The areas surrounding the campus consists of developed institutional, residential and commercial properties with scattered trees and maintained landscaping to the north and east and Fort Walla Walla Park to the south and west, with scattered trees and small wooded areas away from the campus to the west and southwest.

The approximately 10-acre Site includes the eight seismic project buildings and two office trailer buildings, paved walkways, a small paved parking area, and maintained grassy lawns and landscaped areas with scattered trees.

The campus, including the Site and surrounding areas, support wildlife species typical of mostly developed areas within the City of Walla Walla.

### 3.7.1 Threatened and Endangered Species

As part of the preparation of this PEA, the U.S. Fish and Wildlife Service (USFWS), Washington State Department of Ecology (WSDE), Washington Department of Fish and Wildlife (WDFW), and Washington Department of Natural Resources (WDNR) Natural Heritage Program (NHP) were contacted to identify the potential for the presence of state or federally listed species on or in the vicinity of the Site.

A protected species list for the Site was obtained through the USFWS Information for Planning and Conservation (IPaC) internet application. The IPaC report indicated the Site is within the range of one federally listed threatened bird species (yellow-billed cuckoo), one federally listed threatened fish species (bull trout), and one federally listed candidate insect species (monarch butterfly). The IPaC report did not identify any critical habitat of protected species on or near the Site. Table 3-2 provides a summary of the federally protected species, their habitat requirements, and the potential presence of their required habitat at the Site. Based on the developed nature of the Site, the habitat requirements of the identified protected species, and the absence of critical habitat for protected species in the Walla Walla VAMC area, none of these species are likely to be present at the Site.

**Table 3-2 Federally Listed Species in the Vicinity of the Site**

| Species | Federal Status | Habitat | Potential Habitat Present at the Site |
|---|---|---|---|
| *Birds* | | | |
| Yellow-Billed Cuckoo (*Coccyzus americanus*) | Threatened | Wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes.<br>Site is outside proposed critical habitat. | No |
| *Fish* | | | |
| Bull Trout (*Salvelinus confluentus*) | Threatened | Bottom of deep pools in cold rivers and large tributary streams, often in moderate to fast currents with temperatures of 45-50 degrees F; also large cold water lakes and reservoirs.<br>No designated critical habitat. | No |
| *Insects* | | | |
| Monarch Butterfly (*Danaus plexippus*) | Candidate | Habitat is a complex issue for this species. In general, any habitat containing a significant milkweed component.<br>No designated critical habitat. | No |

Certain birds are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act. The IPaC report identified five Birds of Conservation Concern (BCC) protected under the MBTA for the campus area. Table 3-3 provides a summary of the BCC species identified in the IPaC report, their nesting habitat requirements, their likely presence in the Walla Walla area during their nesting season, and their potential for nesting at the Site. Based on the nesting habitat requirements of these bird species and/or the Probability of Presence Summary provided as part of the IPaC report, the five BCC species are unlikely to nest at the Site.

**Table 3-3 MBTA Birds of Conservation of Concern Species in the Vicinity of the Site**

| Species | Breeding/Nesting Habitat | Potential Presence in the Site Area During Breeding Season | Potential Nesting at the Site |
|---|---|---|---|
| Cassin's Finch (Carpodacus cassinii) | Usually nests in conifers at least three meters above ground, on outer end of limb. May sometimes nest in deciduous trees or shrubs. | None | No |

| | | | |
|---|---|---|---|
| Evening Grosbeak (*Coccothraustes vespertinus*) | Usually nests in mature and second growth coniferous forests. Less commonly in deciduous woods, parks, and orchards. | Early May | Negligible |
| Lewis's Woodpecker (*Melanerpes lewis*) | Open forests and woodlands, often logged or burned, including oak, coniferous forests (primarily ponderosa pine, riparian woodland and orchards, less commonly in pinyon-junipers). Distribution closely associated with open ponderosa pine forests in western North America, and is strongly associated with fire-maintained old-growth ponderosa pines. | Early May | No |
| Olive-sided Flycatcher (*Contopus cooperi*) | In forests and woodlands, especially in burned-over areas with standing dead trees, in taiga, subalpine coniferous forests, and mixed coniferous-deciduous forests. | Mid-May and early September | No |
| Roufus Hummingbird (*Selasphorus rufus*) | Coniferous forests, second growth thickets, and brushy hillsides, with foraging extending into adjacent scrubby areas and meadows with abundant nectar flowers; habitat is chiefly secondary succession communities and forest openings. | Early May and late July | No |

Information from the WDNR NHP program and the WDFW did not identify any state-protected species in the vicinity of the Walla Walla VAMC campus.

### 3.7.2 Effects of the Proposed Action

Based on the developed nature of the Walla Walla VAMC campus, the habitat requirements for protected species identified for the campus area, and information obtained from the USFWS IPaC report, WDNR NHP, and WDFW, no federally-listed or state-listed protected species are likely to be present at the Site or affected by the Proposed Action. No further consultation with USFWS is required.

Based on the nesting habitat requirements of the MBTA BCC species identified for the Walla Walla area and their probability of presence in the area during their breeding seasons, it is unlikely that any of these bird species nest at the Site. To further reduce potential impacts to nesting birds, vegetation clearing would occur between October and March (outside of the migratory bird nesting season). If vegetation clearing outside of the migratory bird nesting season is not practical, impacted vegetation would be surveyed by a qualified biologist for active nests prior to vegetation clearing. If active nests are identified, a buffer around the nests would be maintained until the young birds have fledged.

### 3.7.3 Effects of the No Action Alternative

Under the No Action Alternative, no impacts to biological resources would occur.

## 3.8 Noise

The existing noise environment at the Walla Walla VAMC is dominated by vehicle traffic/parking, delivery/service trucks, mechanical equipment, and routine landscaping and maintenance at the campus.

Noise levels are relatively low; the Walla Walla VAMC campus maintains an institutional, park-like environment.

Columbia Walla Walla railroad tracks are located across South 14th Street to the east of the Walla Walla VAMC campus, approximately 1,400 feet from the Site. Consequently, there is intermittent, occasional noise associated with train traffic. The Walla Walla VAMC is located approximately 3.5 miles southwest of the Walla Walla Regional Airport and is just outside the takeoff and landing flight path. There is intermittent, occasional noise associated with aircraft arriving and departing from the airport. No other notable noise-generating sources are present in the immediate vicinity of the campus.

A noise survey was conducted at the Walla Walla VAMC campus in December 2020. Average day time sound levels ranged from approximately 45 decibels (dBA) to 60 dBA, based on proximity to noise-generating sources, such as roads and mechanical equipment. Average sound levels near West Poplar Street were consistently higher (65 to 70 dBA) as a result of persistent vehicle traffic on the street. Higher day time noise levels occur as a result of landscaping and other maintenance operations. However, these noise sources are intermittent and of short duration. Night time noise levels are typically approximately 10 dBA lower than day time noise levels.

### 3.8.1 Sensitive Receptors

Sensitive receptors are land uses for which there is a sensitivity to noise, such as residences, schools, hospitals, libraries, churches, nursing homes, auditoriums, playgrounds and parks. Sensitive noise receptors in the vicinity of the Walla Walla VAMC campus are identified in Section 3.3.3 and depicted on Figure 3-1.

### 3.8.2 Effects of the Proposed Action

The proposed seismic correction projects would have temporary (short-term) impacts to the existing noise environment due to construction activities. Noise generating sources during demolition and construction would be associated primarily with standard construction equipment and construction equipment and material transportation. These increased noise levels could directly affect the identified sensitive receptors and neighboring areas.

Demolition and construction activities generate noise by their very nature and are highly variable, depending on the type, number, and operating schedules of equipment. Construction projects are usually executed in stages, each having its own combination of equipment and noise characteristics and magnitudes.

Demolition activities associated with the retrofit correction method would primarily occur within the project buildings, other than the removal and replacement of roofing materials and roof decks. Demolition activities associated with the replacement and consolidation correction methods would include the complete demolition of the project buildings, including the removal of the structure, its below grade foundation, and the surrounding pavements, and transportation of the demolition debris to a permitted disposal facility. Construction activities would include excavation for the new building foundations, installation of the foundations, construction of the building shells and the exterior façades, complete interior build out, utility installation, paving, and landscaping.

Construction and demolition activities are expected to generally be typical of other similar construction projects and would include mobilization, site preparation, building demolition, excavation, placing foundations, utility development, heavy equipment movement, and paving. The most prevalent noise source at typical demolition and construction sites is the internal combustion engine. General demolition and construction equipment using engines includes, but is not limited to: heavy, medium, and light equipment such as excavators; roller compactors; front-end loaders; bulldozers; graders; backhoes; dump trucks; water trucks; concrete trucks; pump trucks; utility trucks; cranes; and lube, oil, and fuel trucks.

Peak noise levels vary at a given location based on line of sight, topography, vegetation, and atmospheric conditions. Peak noise levels would be variable and intermittent because each piece of equipment would only be operated when needed. However, peak construction noise levels would be considerably higher than existing noise levels. Relatively high peak noise levels in the range of 93 to 108 dBA would occur on the active construction site, decreasing with distance from the construction areas. Generally speaking, peak noise levels within 50 feet of active demolition and construction areas and material transportation routes would most likely be considered "striking" or "very loud", comparable to peak crowd noise at an indoor sports arena. At approximately 200 feet, peak noise levels would be loud - approximately comparable to a garbage disposal or vacuum cleaner at 10 feet. At 0.25-mile, demolition and construction noise levels would generally be quiet enough so as to be considered insignificant, although transient noise levels may be noticeable at times. Table 3-3 presents peak noise levels that could be expected from a range of equipment during proposed demolition and construction activities.

**Table 3-4 Peak Noise Levels Expected from Typical Construction Equipment**

| Source | Peak Noise Level (dBA, attenuated) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Distance from Source (feet) | | | | | | | |
| | **0** | **50** | **100** | **200** | **400** | **1,000** | **1,700** | **2,500** |
| Heavy Truck | 95 | 84-89 | 78-93 | 72-77 | 66-71 | 58-63 | 54-59 | 50-55 |
| Dump Truck | 108 | 88 | 82 | 76 | 70 | 62 | 58 | 54 |
| Concrete Mixer | 108 | 85 | 79 | 73 | 67 | 59 | 55 | 51 |
| Jack-hammer | 108 | 88 | 82 | 76 | 70 | 62 | 58 | 54 |
| Scraper | 93 | 80-89 | 74-82 | 68-77 | 60-71 | 54-63 | 50-59 | 46-55 |
| Bulldozer | 107 | 87-102 | 81-96 | 75-90 | 69-84 | 61-76 | 57-72 | 53-68 |
| Generator | 96 | 76 | 70 | 64 | 58 | 50 | 46 | 42 |
| Crane | 104 | 75-88 | 69-82 | 63-76 | 55-70 | 49-62 | 45-48 | 41-54 |
| Loader | 104 | 73-86 | 67-80 | 61-74 | 55-68 | 47-60 | 43-56 | 39-52 |
| Grader | 108 | 88-91 | 82-85 | 76-79 | 70-73 | 62-65 | 58-61 | 54-57 |
| Pile driver | 105 | 95 | 89 | 83 | 77 | 69 | 65 | 61 |
| Forklift | 100 | 95 | 89 | 83 | 77 | 69 | 65 | 61 |

| Worst-Case Combined Peak Noise Level (Bulldozer, Jackhammer, Scraper) | | | | | |
|---|---|---|---|---|---|
| | Distance from Source (feet) | | | | |
| **Combined Peak Noise Level** | **50** | **100** | **200** | **¼ Mile** | **½ Mile** |
| | 103 | 97 | 91 | 74 | 68 |

Source: Tipler 1976

Combined peak noise levels, or worst-case noise levels when several loud pieces of equipment are used in a small area at the same time, are expected to occur rarely during the project. However, under these circumstances, peak noise levels could exceed 90 dBA within 200 feet of the construction areas, depending on equipment being used.

Although noise levels would be quite loud in the immediate area, the intermittent nature of peak construction noise levels would not create the steady noise level conditions for an extended duration that could lead to hearing damage. Construction workers would follow standard Federal Occupational Safety and Health Administration (OSHA) requirements to prevent hearing damage.

Much of the Walla Walla VAMC campus would be directly or indirectly affected by the proposed seismic correction projects as a result of building demolition, building construction, utility installation and

replacement, and material/equipment transportation and storage. However, the areas where existing buildings would be demolished and/or new buildings would be constructed are anticipated to have the highest and most pervasive construction noise levels. As it is unknown at this time which Site buildings would be demolished, the entire Site was used as the noise generating source area to estimate worst-case peak noise levels from the Seismic Program demolition and construction activities (Figure 3-3). Noise contours depicted on Figure 3-3 illustrate the estimated peak construction noise levels at varying distances from the Site.

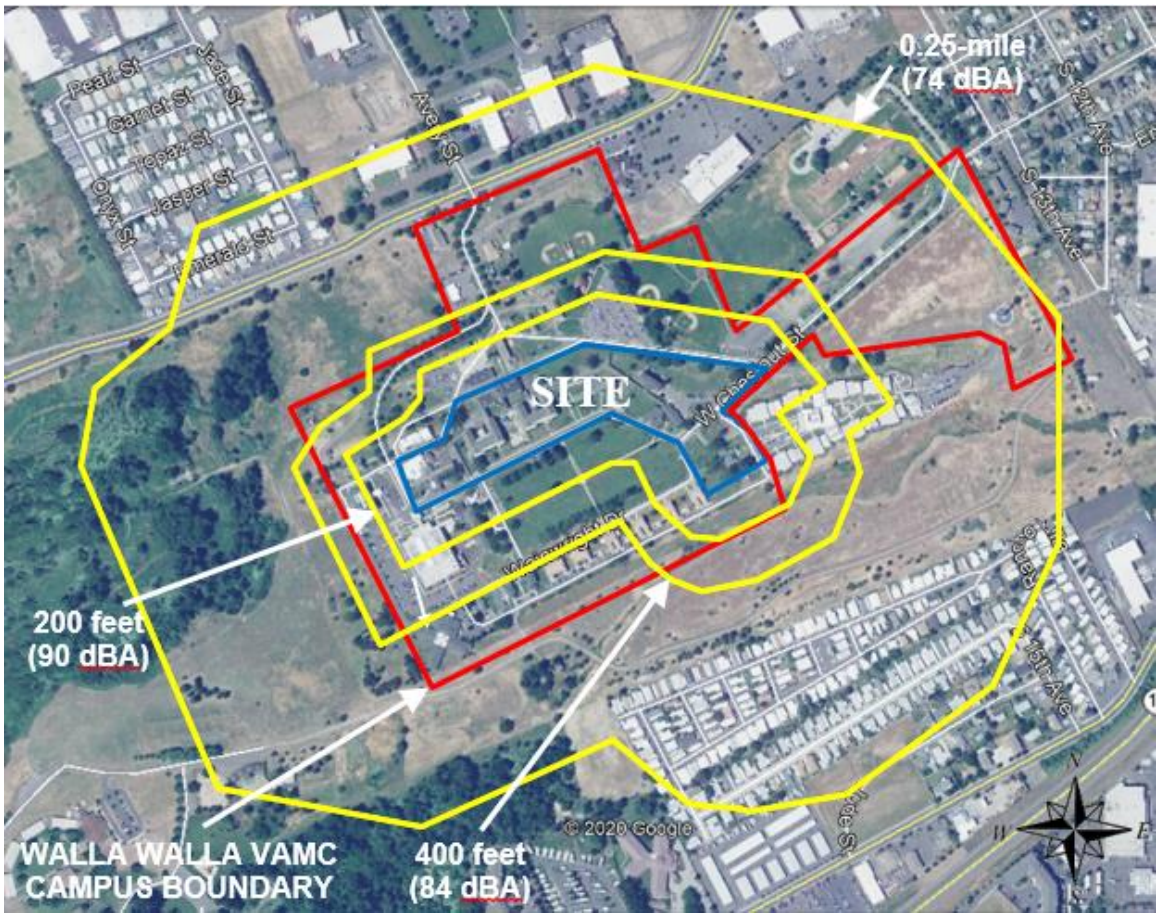



**Figure 3-3 Estimated Peak Construction Noise Level Contour Map**

Areas that could be most affected by noise from construction are those closest to the construction footprint, including the remainder of the Walla Walla VAMC campus, Walla Walla State Veterans Home, the Walla Walla Center for Children and Families, and residential areas northwest and south of the Site. Indoor noise levels would be expected to be 15-25 decibels lower than outdoor levels. Under the City of Walla Walla Noise Ordinance, noise from construction activities is permissible, as long as the construction occurs between the hours of 7:00 a.m. and 10:00 p.m. on Monday through Friday and between the hours of 9:00 a.m. and 10:00 p.m. on Saturday and Sunday. It is anticipated construction activities would be conducted during these hours. In addition, BMPs, described in Section 4, would reduce temporary construction noise impacts.

Indirect impacts include noise from workers commuting and material transport. Area traffic volumes and noise levels would increase as construction employees commute to and from work at the project area, and delivery and service vehicles (including trucks of various sizes) transit to and from the site. Persons in the

project area would experience temporary increases in traffic noise during day-time hours. These effects are not considered significant because they would be temporary, intermittent, and generally similar to existing traffic noise levels in the area.

No notable additional long-term operational noise impacts would be associated with the proposed seismic correction projects. The retrofitted or newly constructed buildings would continue to be used for administrative support functions for the Walla Walla VAMC, similar to their existing uses. No significant new noise-generating activities or operations would be conducted at the Site and no increase in vehicle traffic is anticipated.

### 3.8.3 Effects of the No Action Alternative

Under the No Action Alternative, the noise environment surrounding the Walla Walla VAMC campus would not change. VA would continue to use the eight seismic project buildings for administrative support services, with no seismic upgrades or new construction.

## 3.9 Land Use

The Walla Walla VAMC campus contains buildings of various ages, sizes and architectural styles that have been constructed at the campus since the late 1800s. The eight Seismic Program project buildings were constructed between 1877 and 1932. Campus buildings range in height from one to four stories. The Walla Walla VAMC campus has been used for Veteran health care services and administrative support services since 1921.

Information from the Walla Walla Development Services Department indicates that the entire Walla Walla VAMC campus is currently zoned Public Reserve (PR). Health care facilities are a permitted use under the current zoning designation for the campus.

Properties surrounding the Walla Walla VAMC campus to the northeast (Walla Walla Center for Children and Families), southeast (Walla Walla State Veterans Home), and south and west (Fort Walla Walla Park) are also zoned PR. Properties north of the campus are zoned light industrial/commercial (IL); otherwise, properties surrounding the Walla Walla VAMC campus are generally zoned residential (multi-family and neighborhood). Zoning designations for the Walla Walla VAMC campus and surrounding properties are shown on Figure 3-4.

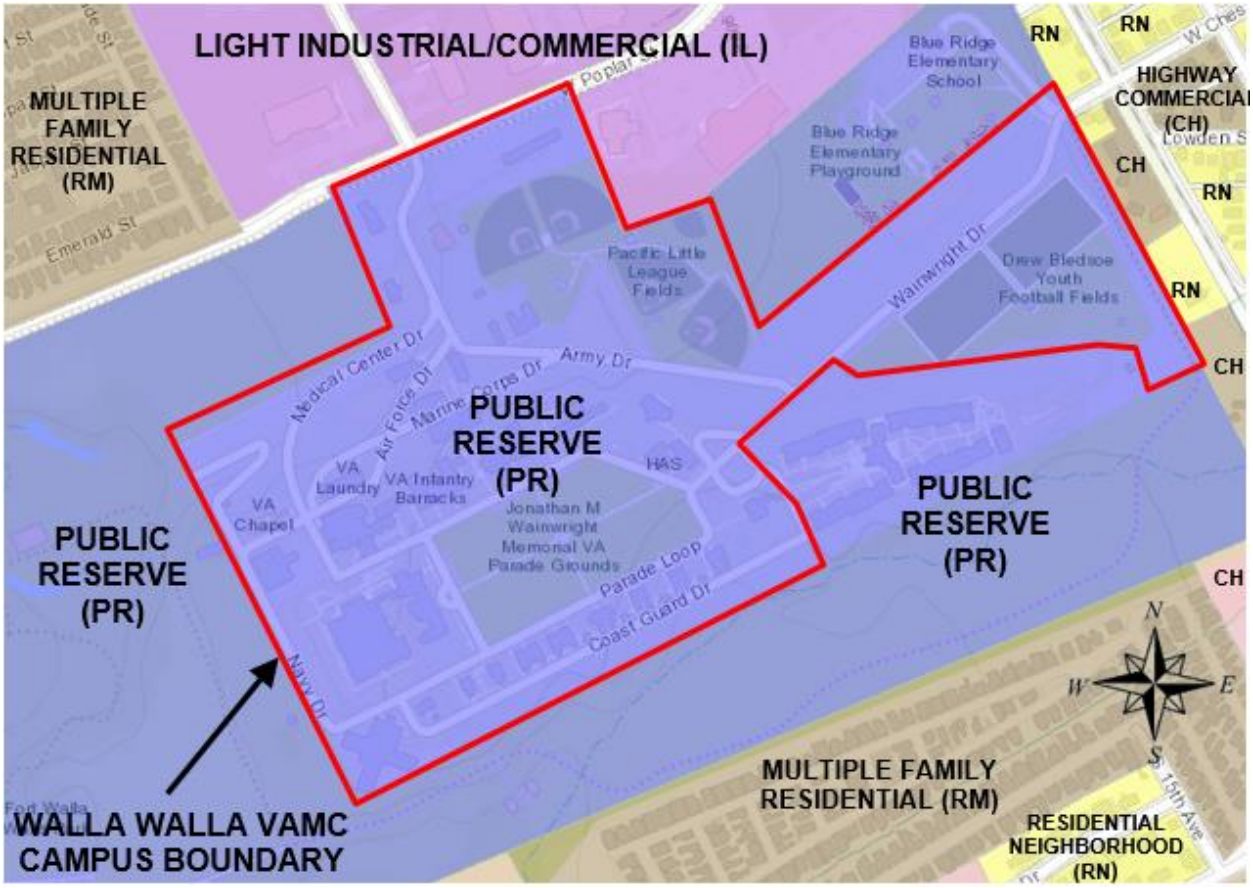



**Figure 3-4 Area Zoning Map**

### 3.9.1 Effects of the Proposed Action

The Proposed Action would result in negligible land use effects. The proposed seismic correction projects would enhance or replace the eight Site buildings, but the overall use of the Site and the campus would not change. The Site use would remain consistent with local zoning and compatible with surrounding land use.

Federal actions on federal government-owned property are exempt from local zoning regulations. Although, as a federal agency, VA is not subject to local zoning regulations or restrictions, the Proposed Action projects would be designed and implemented in consonance with Walla Walla Zoning Code (WWZC) development standards, to the extent practicable, to ensure they are consistent with other Walla Walla VAMC campus and surrounding area developments. No adverse on-site building function or architecture impacts are anticipated.

### 3.9.2 Effects of the No Action Alternative

Under the No Action Alternative, no land use impacts would occur. VA would continue to use the eight project buildings for administrative purposes.

# 3.10 Wetlands, Floodplains, and Coastal Zone Management

## 3.10.1 Wetlands

No wetlands or natural surface waters were identified at the Walla Walla VAMC campus on the USFWS National Wetland Inventory (NWI) internet wetland mapper. No visual evidence of wetlands or natural water features were observed at the campus during the site reconnaissance. The NWI map depicts Bryant Creek, located approximately 200 feet south of the eastern portion of the Site. In addition, natural springs and associated forested wetlands are depicted approximately 650 feet west and northwest of the Site. The NWI map also depicts forested wetlands associated with Bryant Creek located approximately 1,200 feet south of the western portion of the Site. No other wetlands or surface waters were identified in the campus area on the NWI map (Figure 3-5).

**Figure 3-5 National Wetlands Inventory Map**

### 3.10.2 Floodplains

The FEMA National Flood Hazard Flood Layer FIRMette and WSDE Flood Hazard internet mapping applications were used to determine if the Site, Walla Walla VAMC, or surrounding properties are located in designated floodplains. The Walla Walla VAMC campus and immediately areas are not mapped for floodplains by FEMA or WSDE. The nearest mapped areas, located approximately 0.5-mile south and west of the Site, are mapped as Zone C (located outside the 500-year floodplain). Based on the topography of the Walla Walla VAMC campus area, the absence of large surface waters on or near the Site, and the available nearby floodplain mapping, the Site does not appear to be located with a 100-year or 500-year floodplain.

### 3.10.3 Coastal Zone

The Coastal Zone Management Act (CZMA) was promulgated to control nonpoint pollution sources that affect coastal water quality. The CZMA of 1990, as amended (16 USC 1451 et seq.) encourages states to preserve, protect, develop, and where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. The CZMA requires that federal actions within and outside the coastal zone that could have reasonably foreseeable impacts on land, water, and natural resources of the coastal zone be consistent with the state's federally-approved Coastal Management Program. The WSDE Coastal Zone Management Program applies to 15 coastal counties in the western portion of the state; Walla Walla County is not located within or near the designated coastal zone.

### 3.10.4 Effects of the Proposed Action

No wetlands were identified on or adjacent to the Site. In addition, the Site does not appear to be located within the 100-year or 500-year floodplains and is not located within a designated coastal zone. No impacts to wetlands, floodplains, or coastal zones would occur as a result of the Proposed Action.

### 3.10.5 Effects of the No Action Alternative

Under the No Action Alternative, no impacts to wetlands, floodplains, or coastal zones would occur.

## 3.11 Socioeconomics

The following subsections identify and describe the socioeconomic environment of the City of Walla Walla, Walla Walla County, and the State of Washington. The data provide an understanding of the socioeconomic factors that have developed the area. Socioeconomic areas of discussion include the local demographics of the area, regional and local economy, and local recreation activities. Data used in preparing this section were collected from the 2020 Census of Population and Housing (U.S. Census Bureau), subsequent U.S. Census Bureau data, and the U.S. Department of Commerce Bureau of Economic Analysis.

**Demographics**

The City of Walla Walla, Walla Walla County, and the State of Washington have similar minority populations. Minority populations specific to the Walla Walla VAMC campus area are discussed in Section 3.16 (Environmental Justice). Persons under 18 years of age and over 65 years of age, and high school graduation rates are generally similar between the City of Walla Walla, Walla Walla County, and the State of Washington (**Error! Reference source not found.**4).

**Table 3-5 Demographic Data for Walla Walla, Walla Walla County, and Washington**

| Area | All Individuals (2020 Estimate) | Population Under 18 Years of Age (2020) | Population Over 65 Years of Age (2020) | Minority (2020) | High School Graduates (2016-2020) | Veterans (2016-2020) |
|---|---|---|---|---|---|---|
| Washington | 7,705,821 | 21.8% | 15.9% | 27.0% | 91.7% | 517,912 |
| Walla Walla County | 62,584 | 20.7% | 18.7% | 27.4% | 87.8% | 4,369 |
| Walla Walla | 34,060 | 19.8% | 17.6% | 29.2% | 87.7% | 2,424 |

Note: People of Hispanic or Latino origin may be of any race
Source: U.S. Census Bureau, 2020 Census, Profile of General Demographic Characteristics, 2016-2020 (U.S. Census Bureau 2022)

### Employment and Income

The City of Walla Walla and Walla Walla County have lower median household incomes and slightly larger populations below the poverty line than the State of Washington as a whole (**Error! Reference s ource not found.**5). Household incomes specific to the Walla Walla VAMC campus area are discussed in Section 3.16. Unemployment rates in the City of Walla Walla are similar to the State of Washington and slightly lower than Walla Walla County.

**Table 3-6 Regional Income for Walla Walla, Walla Walla County, and Washington**

| Area | Number of Households (2016-2020) | Median Household Income (2016-2020) | Population Below Poverty Level | Unemployment Rate (January 2022) |
|---|---|---|---|---|
| Washington | 2,905,822 | $77,006 | 9.5% | 4.3% |
| Walla Walla County | 22,773 | $60,615 | 12.9% | 5.5% |
| Walla Walla | 12,414 | $54,412 | 14.2% | 3.8% |

Source: U.S. Census Bureau, 2020 Census, Profile of General Demographic Characteristics, 2016-2020 (U.S. Census Bureau 2022) and U.S. Bureau of Labor Statistics, Unemployment rate in States and Local Areas (U.S. Bureau of Labor Statistics 2022)

### Commuting Patterns

Residents of the Walla Walla area are largely dependent on personal automobiles for transportation to and from work. Other methods of transit include public transportation (Valley Transit), carpooling, and walking. The average commuting time in Walla Walla and Walla Walla County was approximately 15 minutes in 2020.

### Protection of Children

Because children may suffer disproportionately from environmental health risks and safety risks, EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*, was introduced in 1997 to prioritize the identification and assessment of environmental health risks and safety risks that may affect children and to ensure that federal agencies' policies, programs, activities, and standards address environmental risks and safety risks to children. This section identifies the distribution of children and locations where numbers of children may be proportionately high (such as schools, childcare centers, family housing) in areas potentially affected by the Proposed Action.

Children are not regularly present at the Site or the medical center areas of the Walla Walla VAMC campus. However, children may be present at the baseball fields and football fields in the northern and eastern portions of the campus, the adjoining Walla Walla Center for Children & Families and Fort Walla Walla Park, and the off-site residential areas near the campus.

### 3.11.1 Effects of the Proposed Action

The Proposed Action would provide additional temporary construction jobs in the private sector, providing short-term socioeconomic benefit to the area through increased employment and increased spending at local businesses. Most importantly, the Proposed Action would result in significant long-term beneficial socioeconomic and safety impacts by providing life-safety protection to Veterans, employees, and other occupants of the seismic project buildings and ensuring health care and administrative operations at the Walla Walla VAMC could be maintained in the event of a major earthquake.

No significant adverse health or safety risks to children are anticipated to result from the Proposed Action. Children would only be present at the Site and other medical center areas of the Walla Walla VAMC campus as visitors, as all Veterans are above the age of 18. Construction areas would be secured to prevent unauthorized access by children from the nearby residential and recreational areas. The construction contractors would limit and control dust and noise, as discussed in Section 4, thereby minimizing adverse effects to children in the area.

### 3.11.2 Effects of the No Action Alternative

The No Action Alternative would result in no construction and no short-term economic benefit due to VA's action. The eight project buildings would remain structurally deficient and at risk of significant damage or failure from a seismic event.

This alternative would not improve patient, staff and visitor safety in the event of a major earthquake and would not enable the facility to return to operation quickly in the aftermath of such a seismic event, a significant adverse, long-term, impact to regional Veterans, VAMC staff, and visitors.

## 3.12 Community Services

The Walla Walla VAMC campus is located in the Walla Walla Public School District. With the exception of the Walla Walla Center for Children & Families (preschool), located adjacent to the northeast of the campus, and Garrison Middle School, located approximately 1,000 feet east of the campus, there are no other schools located within 3,500 feet of the Site (Walla Walla Public Schools and Google Earth, 2022)

The Providence St. Mary Medical Center is located approximately 2,600 feet northeast of the campus. There are no additional hospitals or other major medical facilities located within one mile of the Walla Walla VAMC campus.

The Walla Walla Police Department provides police protection to the Walla Walla VAMC campus and its vicinity. The Walla Walla Fire Department provides fire protection and emergency medical services to the campus and its vicinity.

The City of Walla Walla Public Works Department and the Washington State Department of Transportation (WSDOT) provide maintenance to primary roads and bridges in the vicinity of the Walla Walla VAMC campus.

Baseball and football fields are located in the northern and eastern portions of the Walla Walla VAMC campus and Fort Walla Walla Park is located adjacent to the south and west of the campus. There are no other developed recreational facilities in the immediate vicinity of the Walla Walla VAMC campus.

Public transportation is provided to the vicinity of the Walla Walla VAMC campus by Valley Transit, with one bus stop at the campus (Route 6 VA/Medical Loop, Stop 3). Additional information regarding public transportation in the campus vicinity is provided in Section 3.14.

### 3.12.1 Effects of the Proposed Action

No additional load is expected to be placed on the fire or police departments as the result of implementing the Proposed Action. Increased use of other public or community services as a result of the Proposed Action is not expected. The Proposed Action is not anticipated to impede existing public services. As such, the Proposed Action is expected to have no impact on local public services.

### 3.12.2 Effects of the No Action Alternative

Under the No Action Alternative, no impacts to community services would occur.

## 3.13 Solid Waste and Hazardous Materials

Hazardous and toxic materials or substances are generally defined as materials or substances that pose a risk (through either physical or chemical reactions) to human health or the environment.

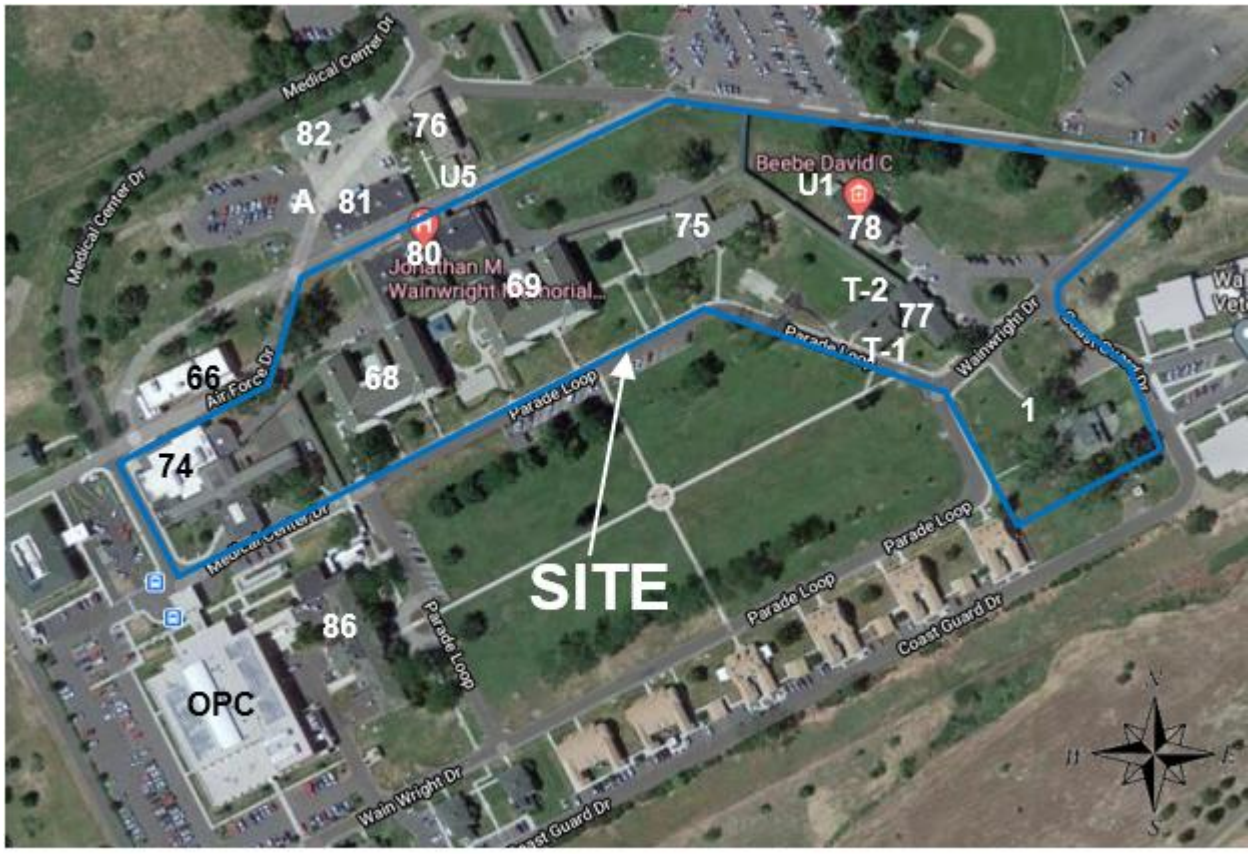
A Phase I Environmental Site Assessment (Phase I ESA) of the approximately 10-acre Site was completed in 2021. The Phase I ESA identified the following environmental concerns/recognized environmental conditions (RECs) for the Site:

- Composite soil sampling conducted in 2002 between the roof drip line and foundations of eight of the older residential buildings at the Walla Walla VAMC campus, including Site Building 1, identified concentrations of lead in soil in excess of the Housing and Urban Development (HUD) clearance level of 1,200 milligrams/kilogram (mg/kg). The lead concentration detected in the soil sample collected near Building 1 was 3,300 mg/kg, which exceeds the WSDE Model Toxic Control Act (MTCA) Method A unrestricted land use soil cleanup level (250 mg/kg) and the industrial cleanup level (1,000 mg/kg). The elevated lead levels in the soils were attributed to the lead-based paint (LBP) on the buildings; paint chips were reported in the soil samples. LBP surveys conducted in 2006 and 2021 identified the presence of LBP on the exterior of all of the Site buildings. Based on the LBP surveys and the age of the current/former Site buildings, elevated lead concentrations may also exist in shallow soils in other areas of the Site.
- Archaeological investigations at the easterly adjoining Walla Walla State Veterans Home property, formerly part of the Walla Walla VAMC campus, exposed buried construction debris at some locations, associated with former buildings at the property. Some suspected asbestos-containing materials (ACM) were noted in the debris. In addition, abandoned steam tunnels with ACM pipe insulation were noted at the Walla Walla State Veterans Home property. No buried building debris or abandoned steam tunnels are known to exist at the Site; however, it is possible these materials are present based on the long history of Site development and the presence of former Site buildings.
- A 1,100-gallon diesel underground storage tank (UST) associated with an emergency generator is located along the north side of Site Building 78. This UST was installed in 1992. No releases have been reported for this UST; however, based on its age (30 years), petroleum contamination may be present in the soil in its vicinity.
- The Walla Walla VAMC central boiler plant (off-site Building 76) currently utilizes four 20,000-gallon heating oil USTs located approximately 40 feet north of Site Building 80. Three of the USTs were reportedly installed in 1964 and one was reportedly installed in 1982. WSDE information indicated that all four were retrofitted with an epoxy liner in 1998. No releases have been reported for

the four heating oil USTs. However, due to their age (up to 58 years old) and proximity to the Site, petroleum contamination may be present in soil in the northern portion of the Site.

- One 6,500-gallon emergency generator diesel UST was installed south of Building 76, approximately 40 feet north of Site Building 80, in 1982. This UST replaced a 1,000-gallon diesel UST that had been installed in 1976. Piping from the UST leads to an emergency generator within the eastern side of Building 80. No releases have been reported for these two emergency generator USTs or the associated piping running to Building 80. However, due to the age of the current UST (40 years old) and its proximity to the Site, and the associated piping running from the UST to the Building 80 emergency generator, petroleum contaminated soils may be present in this area of the Site.

Figure 3-6 depicts the storage tank locations at and near the Site.




U# – # of Underground Storage Tanks
A – Aboveground Storage Tank

**Figure 3-6 Storage Tank Locations**

## 3.13.1 Effects of the Proposed Action

Implementing the Proposed Action would result in short-term, less-than-significant adverse impacts due to the increased presence and use of petroleum and hazardous substances during construction. An increase in construction vehicle traffic would increase the likelihood for release of vehicle operating fluids (such as oil, diesel, gasoline, and antifreeze) and maintenance materials. As such, a less-than-significant, direct, short-term adverse impact is possible. Implementation of standard construction BMPs would serve to ensure this impact is further minimized.

Elevated lead concentrations in soil (from LBP) are known to exist along the drip lines and foundations of Building 1 and may exist in the vicinity of the other current and former Site buildings. As part of the Proposed Action, soil surrounding Building 1 that exceeds the WSDE MTCA soil cleanup levels would be removed and properly disposed of off-site or would be covered with a vegetated clean soil layer, pavement, and/or some other material to prevent incidental exposure following the completion of the Proposed Action construction activities. In addition, a Soil Management Plan for subsurface construction activities would be prepared to inform construction contractors of the possible presence of lead-impacted soil in other areas of the Site, as well as demolition debris, abandoned steam tunnels with ACM, and petroleum-impacted soil. The Soil Management Plan would provide procedures to ensure the proper handling and disposal of excavated materials during construction. With the completion of these BMPs, potential impacts associated with known or potential contamination on the Site would be less than significant.

The Proposed Action would also include the removal of the diesel UST located adjacent to Building 78 and the piping that extends from the UST near Building 76 to the emergency generator in Building 80. The UST and piping would be removed in accordance with the WSDE UST Program requirements, including soil sampling and remediation of contamination, if required. With the completion of these procedures, potential impacts from these USTs would be less than significant.

The structures to be renovated or demolished at the Site contain ACM and LBP. Identified ACMs would be removed by licensed asbestos abatement contractors in accordance with the NESHAP and State of Washington requirements prior to building renovation or demolition. Asbestos abatement procedures require the removal of ACM with various controls and monitoring to prevent asbestos emissions and worker exposure. The demolition of buildings containing LBP can result in the generation of LBP-containing dust. Standard demolition BMPs to control dust (Section 4) would reduce LBP dust emissions during demolition to less-than-significant levels.

No significant adverse long-term impacts are anticipated during operation of the Site buildings following the completion of the proposed seismic correction projects. The buildings would continue to be used primarily for administrative purposes with limited petroleum product and hazardous materials handling. Long-term operational solid wastes and hazardous materials would be managed in accordance with applicable federal and state laws. Wastes would be collected and properly disposed of by licensed, contracted transportation and disposal companies.

It is anticipated that one or more emergency power generators would be installed to serve the retrofitted and/or new seismic project buildings. The generators would likely be fueled by diesel stored in new USTs or aboveground storage tanks (ASTs) located near the generators. Petroleum storage and handling would be conducted in accordance with the Walla Walla VAMC's Spill Prevention, Control and Countermeasures (SPCC) Plan and, if applicable based on size, WSDE requirements. With these BMPs, potential impacts associated with petroleum storage for emergency power generators would be less than significant.

### 3.13.2 Effects of the No Action Alternative

Under the No Action Alternative, the proposed seismic corrections would not be conducted and no potential petroleum and hazardous substances impacts associated with the Proposed Action would occur.

## 3.14 Traffic, Transportation, and Parking

Traffic in the vicinity of the Walla Walla VAMC campus is regulated by the Walla Walla Public Works Department and WSDOT.

Public transportation in the Walla Walla area is provided by Valley Transit. One bus route serves the campus (Bus Route 6) with a bus stop adjacent to Buildings 143 (Outpatient Clinic) and 145 (Specialty Care Clinic).

Primary access to the Walla Walla VAMC campus is provided from the main entrance (Medical Center Drive) at the intersection of West Poplar Street and Avery Street (north of the campus). Secondary access to the campus is provided by Wainwright Drive from West Chestnut Street (east of the campus).

South 9th Avenue is a north-south oriented, five-lane road that serves as the primary thoroughfare in the vicinity of the Walla Walla VAMC campus. West Poplar Street is an east-west oriented, four-lane road along the northern boundary of the campus. South 14th Avenue is a north-south oriented, two-lane road along the eastern boundary of the campus. Avery Street is a north-south oriented, two-lane road directly opposite the main entrance/exit of the Walla Walla VAMC campus, across West Poplar Street. West Chestnut Street is an east-west oriented, two-lane road directly opposite the secondary entrance/exit (Wainwright Drive). Northeast Myra Road is a north-south oriented, four-lane road west of the Walla Walla VAMC campus. According to WSDOT, the 2019 annual average daily traffic (AADT) volume for West Poplar Street in the vicinity of the Walla Walla VAMC campus was 15,037 vehicles. The 2021 AADT for South 9th Avenue in the vicinity of the campus was 17,370 vehicles. AADT information for other roads in the vicinity of the campus were not available from WSDOT, Walla Walla Valley Metropolitan Planning Organization, or the City of Walla Walla. Roads and intersections near the Walla Walla VAMC campus are illustrated on Figure 3-7. Refer to Table 3-6 for roadway information for the Walla Walla VAMC campus area.

**Table 3-7 Walla Walla VAMC Campus Area Roadways**

| Type | Route | Direction | Road Width (feet) | Lanes | Average Daily Traffic (year) |
|---|---|---|---|---|---|
| Principal Arterial | South 9th Avenue | north-south | 65 | 5 | 17,370 (2021) |
| Minor Arterial | West Poplar Street | east-west | 45 | 4 | 15,037 (2019) |
| Community Collector | South 14th Avenue | north-south | 20 | 2 | N/A |
| Local | Avery Street | north-south | 35 | 2 | N/A |
| Local | West Chestnut Street | east-west | 25 | 2 | N/A |
| Minor Arterial | NE Myra Road | north-south | 45 | 4 | N/A |

AADT Source: WSDOT 2022
Additional Data Sources: TTL Site Reconnaissance, (December 2020); and Traffic Study, Calibre, January 2021.
N/A – Not Available

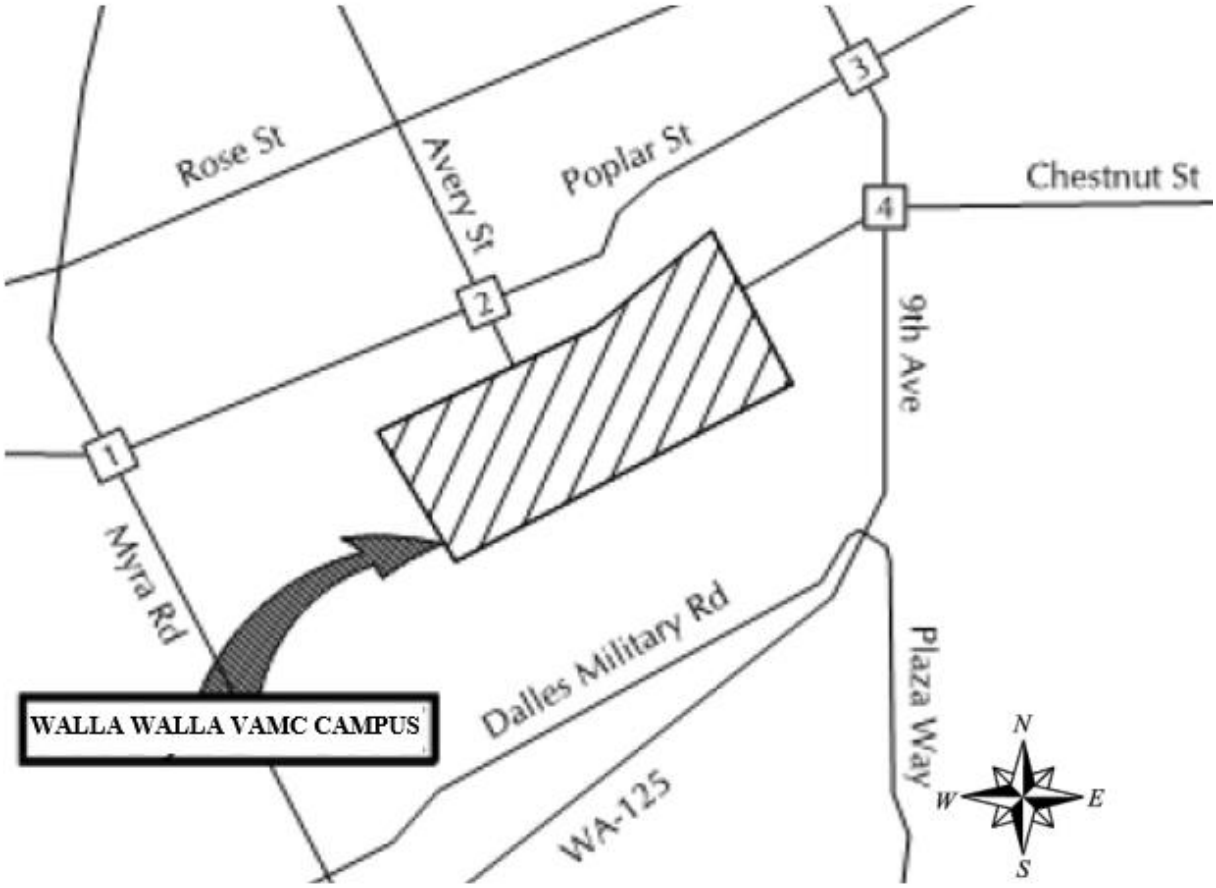



**Figure 3-7 Walla Walla VAMC Area Roadways**

A Traffic Study for the Walla Walla VAMC campus area was conducted in February 2021 to evaluate the existing traffic conditions in the vicinity of the campus and the future potential traffic conditions with the implementation of the Proposed Action. The Traffic Study evaluated the following intersections:

- West Poplar Street/NE Myra Road (1)
- West Poplar Street/Avery St-Medical Center Drive (2)
- West Poplar Street/South 9th Avenue (3)
- West Chestnut Street/South 9th Avenue (4)

Note: Number in parentheses denotes the intersection number on Figure 3-7.

Intersections 1, 3 and 4 are fully signalized. Intersection 2 is stop sign controlled, with stop signs on Avery Street and Medical Center Drive and no stop signs on Poplar Street.

Due to COVID-19 and its impact on traffic counts, the Traffic Study estimated the 2020 traffic counts at the study intersections based on traffic data included in a previous traffic study prepared for the Walla Walla VAMC campus in 2013, and the Walla Walla Comprehensive Plan, prepared by the City of Walla Walla in 2018. The traffic counts were adjusted for baseline 2020 conditions assuming a 1.0 percent annual growth rate.

AM peak hour traffic volumes for the vicinity of the Walla Walla VAMC campus are only about 40 percent of the PM peak hour traffic volumes, and the City of Walla Walla uses PM peak hour traffic

volumes for its traffic impact analyses. Consequently, the 2020 Traffic Study focused on PM peak traffic for the traffic impact analysis.

The 2020 Traffic Study evaluated each of the study intersections for existing traffic conditions and predicted future traffic conditions in 2035 with assumed regional and VAMC campus traffic growth of 1.5 percent per year. No increase in long-term, operational traffic is anticipated as a result of the Proposed Action. The Traffic Study assessed worst-case peak traffic conditions, during the PM weekday rush hours, for each scenario. Level of Service (LOS) evaluations of each intersection were conducted in accordance with the Highway Capacity Manual. LOS is a qualitative measure of traffic flow and is represented by letter designations ranging from "A" to "F" with an LOS of A representing the best conditions and an LOS of F representing the worst conditions. The City of Walla Walla has minimum LOS standards in accordance with the Walla Walla Urban Area Transportation Impact Analysis Guidelines. The guidelines state that roadways and intersections must operate at a minimum of LOS D. LOS E is acceptable for critical movements at local roadways.

The Traffic Study found that the four study intersections in the vicinity of the campus currently (2020) operate at acceptable LOS during the PM peak hour, with LOS at the intersections ranging from LOS A to LOS C. Refer to Table 3-7.

**Table 3-8 Walla Walla VAMC Campus 2020 LOS – PM Peak Hour**

| Intersection | Control | Delay/LOS(a) |
|---|---|---|
| Poplar Street/Myra Rd | Signal | 27.1 Sec./LOS C |
| Poplar Street/Avery St-Med Center Dr | | |
| EB Left Turns | Yield | 8.4 Sec./LOS A |
| WB Left Turns | Yield | 8.1 Sec./LOS A |
| Avery Street Left-Thru-Rights | Stop Sign | 20.3 Sec./LOS C |
| Med Center Dr Left-Thru-Rights | Stop Sign | 19.5 Sec./LOS C |
| Poplar Street/9th Avenue | Signal | 20.6 Sec./LOS C |
| Chestnut Street/9th Avenue | Signal | 27.3 Sec./LOS C |

The Traffic Study found that the four study intersections would still largely meet the City of Walla Walla standards with predicted future 2035 traffic volumes (assuming 1.5 percent annual growth); however, delays at the West Poplar Street/Avery Street- Medical Center Drive intersection were forecasted to be unacceptable (LOS F) for traffic turning onto West Poplar Street from Medical Center Drive during the PM peak hour (i.e., traffic leaving the Walla Walla VAMC campus). Refer to Table 3-8.

**Table 3-9 Walla Walla VAMC Campus Projected 2035 LOS – PM Peak Hour**

| Intersection | Control | Delay/LOS(a) |
|---|---|---|
| Poplar Street/Myra Rd | Signal | 33.7 Sec./LOS C |
| Poplar Street/Avery St-Med Center Dr | | |
| EB Left Turns | Yield | 8.8 Sec./LOS A |
| WB Left Turns | Yield | 8.5 Sec./LOS A |
| Avery Street Left-Thru-Rights | Stop Sign | 40.1 Sec./LOS E |
| Med Center Dr Left-Thru-Rights | Stop Sign | **>50 Sec./LOS F** |
| Poplar Street/9th Avenue | Signal | 30.3 Sec./LOS C |
| Chestnut Street/9th Avenue | Signal | 47.9 Sec./LOS D |

The Traffic Study stated that measures to improve the West Poplar Street/Avery Street- Medical Center Drive intersection were identified and included in the City of Walla Walla *Six-Year Capital Facilities Plan* (2020-2025). A study prepared for the City of Walla Walla in 2019 recommended converting the existing four-lane section of West Poplar Street to a three-lane section with buffered bike lanes (one vehicular travel lane in each direction, one center turn lane for vehicles, and striped bike lanes in each direction). This proposed configuration (to be completed by 2025) would provide a median left-turn lane for eastbound vehicles turning from West Poplar Street onto Avery Street and westbound vehicles turning onto Medical Center Drive. In addition, the proposed reconfiguration would provide a refuge lane for vehicles turning left from Avery Street and from Medical Center Drive onto West Poplar Street. The Traffic Study found that with the planned reconfiguration of West Poplar Street, delays for vehicles exiting the Walla Walla VAMC campus during the PM peak hour and turning onto West Poplar Street would be improved to LOS E in 2035; which would meet the City of Walla Walla's LOS E minimum standard for critical movements on local roadways. Refer to Table 3-9.

**Table 3-10 Walla Walla VAMC Campus Projected 2035 LOS – With Planned Improvements**

| Intersection | Control | Delay/LOS(a) | |
|---|---|---|---|
| | | 2020 | 2035 |
| Poplar Street/Avery St-Med Center Dr | | | |
| EB Left Turns | Yield | 8.4 Sec./LOS A | 8.8 Sec./LOS A |
| WB Left Turns | Yield | 8.1 Sec./LOS A | 8.5 Sec./LOS A |
| Avery Street Left-Thru-Rights | Stop Sign | 16.9 Sec./LOS C | 24.5 Sec./LOS C |
| Med Center Dr Left-Thru-Rights | Stop Sign | 17.3 Sec./LOS C | 46.9 Sec./LOS E |

### 3.14.1 Parking

The Traffic Study indicated parking at the Walla Walla VAMC campus is distributed across 20 separate parking areas, with an approximate total of 732 parking spaces on and adjacent to the campus. The Site includes 21 of these parking spaces, with 20 spaces provided by the parking lot near Buildings 77 and 78 and one motorcycle parking space by Building 74. The Traffic Study stated that 2019 parking data for the campus indicated a parking use rate of approximately 70 to 85 percent between 8:00 am and 4:00 pm, with a use rate of at least 95 percent in the medical center area of the campus. The Traffic Study indicated that the campus was operating at a parking deficit of approximately 122 parking spaces in 2020 and is projected to have a parking deficit of approximately 291 parking spaces in 2035.

### 3.14.2 Effects of the Proposed Action

The Proposed Action would have less-than-significant, short-term, adverse transportation impacts during construction. Construction traffic, consisting of trucks, workers' personal vehicles, and construction equipment, would increase traffic volumes in the local area, and could cause delays if this occurred during morning and evening peak periods. Construction traffic would be minimized by utilizing available staging areas on the Walla Walla VAMC campus and minimizing interruptions to campus roadways and parking lots during construction. BMPs, such as minimizing construction traffic during the PM peak travel hours, would further reduce construction traffic impacts.

The Proposed Action would also have less-than-significant, short-term adverse parking impacts. During construction, the existing surface parking at the Site (approximately 21 parking spaces) would be temporarily eliminated. This temporary parking loss represents less than 3 percent of the 732 campus parking spaces. Other campus parking could also be affected by construction contractor equipment parking and materials staging. However, VA would plan and coordinate construction activities to minimize temporary parking losses.

Following the completion of the Proposed Action construction activities, traffic and parking associated with the operation of the Site buildings would return to pre-construction conditions. No notable change in Site operations or associated vehicle trips and parking demand are anticipated as a result of the Proposed Action.

### 3.14.3 Effects of the No Action Alternative

Under the No Action Alternative, no transportation or parking impacts associated with VA's Proposed Action would occur.

## 3.15 Utilities

The Walla Walla VAMC campus is currently serviced by electricity, natural gas, sanitary sewerage, backup potable water, and telecommunication utilities. The proposed retrofitted or new seismic project buildings would also be serviced by these utilities. Utility providers to the Walla Walla VAMC include the following:

- **Pacific Power** supplies electricity to the campus. All Site buildings are serviced by below grade electric lines. The campus also uses diesel fueled backup/emergency power generators.
- **Cascade Natural Gas Corporation** supplies natural gas to the campus; however, only Buildings 66, 74, 76, 81, 168, 140, 143, and 145 are currently connected to the natural gas system. Most building on the campus are heated by hot water/steam from the Walla Walla VAMC central boiler plant (Building 76).
- **City of Walla Walla Public Works Department** supplies backup/emergency potable water and sanitary sewer services to the campus. All of the Site buildings are connected to the municipal sanitary sewer system. The Walla Walla VAMC uses two water wells and a 150,000-gallon water tower storage tank in the eastern portion of the campus that serve as the primary water source for the campus. Potable water is distributed across the campus by three six-inch water line loops, which serve as redundant systems. Backup/emergency municipal water is provided by City of Walla Walla water supply lines from West Chestnut Street and West Poplar Street.
- **Walla Walla VAMC Campus** has a private stormwater system; however, it is not centralized. The Walla Walla VAMC relies on approximately 26 drywells at the campus for stormwater management. Stormwater that is not captured by the drywells flows off the campus via sheet flow or collects in low-lying areas at the campus. Analysis from the HHR indicated that the drywells

on or adjacent to the Site are undersized and have slow percolation rates, due to infrequent maintenance and lower than desirable permeability soils, which result in varying degrees of flooding during rain events. The HHR recommended modifications to the drywell system, including maintenance and expansion, and/or the installation of a campus-wide stormwater system.

- **Verizon** provides telecommunication services to the campus.

### 3.15.1 Effects of the Proposed Action

With the exception of municipal stormwater services, all major utility services are currently provided to the Walla Walla VAMC campus. The Proposed Action is not anticipated to result in an increase in the consumption of utilities, as the project would retrofit the existing Site buildings and/or replace them modern buildings of similar size/total square footage. The overall use of the Site buildings would no change. The Proposed Action may result in a slight decrease in the consumption of electricity, natural gas, and potable water, as the modern buildings and/or equipment would utilize the available utilities more efficiently.

No utility service upgrades are anticipated to be required for the Proposed Action. However, each utility provider would require a review of design drawings to determine the connection and service requirements. The Proposed Action is not anticipated to require alteration of the existing utility mains or affect off-site utility consumers. Proposed Action utility impacts would be negligible.

Stormwater at the Site would be collected and managed with appropriate control measures to ensure no additional impact to the existing stormwater management system until such time that system can be upgraded.

### 3.15.2 Effects of the No Action Alternative

Under the No Action Alternative, the proposed seismic correction projects would not be implemented. Utility use at the Walla Walla VAMC campus would remain unchanged.

## 3.16 Environmental Justice

In 1994, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued to focus attention of federal agencies on human health and environmental conditions in minority and low-income communities and to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed.

According to the USEPA-developed EJSCREEN (an environmental justice mapping and screening internet application), the Walla Walla VAMC campus is located in an area with a slightly higher minority population (39 percent) and higher low-income population (35 percent) than the State of Washington as a whole (31 percent and 26 percent, respectively).

### 3.16.1 Effects of the Proposed Action

The Proposed Action would have negligible environmental justice effects. Although the Walla Walla VAMC campus is located in an area with larger than average minority and low-income populations, the Proposed Action would have only minor impact on the residents in the area. During demolition and construction, effects on nearby residents, such as through noise and dust, would be limited and controlled through BMPs described in Section 4, thereby minimizing adverse effects to minority and low-income populations within the region of influence.

Proposed Action construction activities are anticipated to have a minor short-term beneficial socioeconomic (and environmental justice) effect on the local employment and personal income in the region of influence, as described in Section 3.11.

### 3.16.2 Effects of the No Action Alternative

Under the No Action Alternative, the proposed seismic correction projects would not be implemented and there would be no direct environmental justice effects.

## 3.17 Cumulative Impacts

As defined by the CEQ regulations in 40 CFR Part 1508.7, cumulative impacts are those which "result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (federal or non-federal) or individual who undertakes such other actions." Cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions taken before, during, or after the Proposed Action in the same geographic area.

The Walla Walla VAMC campus is located in a mixed-use residential, commercial, institutional, and recreational area. The region of influence for the campus is mostly developed with residential and commercial/light industrial properties to the north; institutional, commercial, and residential properties to the east; recreational and residential properties to the south; and recreational property to the west. The majority of the undeveloped land in the vicinity of the campus is a recreational area associated with Fort Walla Walla Natural Area, with limited undeveloped land associated with a light industrial park to the north. No other undeveloped land is located in the immediate vicinity of the Walla Walla VAMC.

The area surrounding the Walla Walla VAMC campus has been mostly developed since at least the 1980s, with infill development to the north of the campus in the late 1990s and early 2000s. The Walla Walla State Veterans Home adjoining to the southeast of the campus was developed in 2016. Otherwise, there has been no large-scale development in the vicinity of the Walla Walla VAMC campus in at least the last 30 years. Other than the undeveloped land associated with the small light industrial park across Poplar Street to the north of the campus, further potential development in the area is limited due to the developed nature of the area. Most potential future development in the area would likely be a result of the replacement or transformation of older developments that have reached the end of their effective useful lives. No specific development plans for off-campus properties in the Walla Walla VAMC campus area were identified.

Several new construction and renovation projects have been completed at the Walla Walla VAMC over the past ten years, including Building 140 (Residential Rehabilitation Unit), Building 143 (Outpatient Clinic), and Building 145 (Specialty Clinic) in the western portion of the campus. In addition, VA transferred approximately 11 acres of land in the southeastern portion of the campus to the State of Washington for the construction the Walla Walla State Veterans Home in 2016. Otherwise, the Walla Walla VAMC campus has continued in its current configuration since at least the 1980s.

Measures to improve the West Poplar Street/Avery Street- Medical Center Drive intersection were identified and included in the City of Walla Walla *Six-Year Capital Facilities Plan* (2020-2025). The *Six-Year Capital Facilities Plan* recommended converting the existing four-lane section of West Poplar Street to a three-lane section with buffered bike lanes. This proposed configuration (to be completed by 2025) would provide a median left-turn lane for eastbound vehicles turning from West Poplar Street onto Avery Street and westbound vehicles turning onto Medical Center Drive. In addition, the proposed reconfiguration would provide a refuge lane for vehicles turning left from Avery Street and from Medical Center Drive onto West Poplar Street. Refer to Section 3.14 for additional details.

### 3.17.1 Effects of the Proposed Action

The Proposed Action would result in impacts to the Walla Walla VAMC campus area as identified throughout Section 3. These include short-term and/or long-term potential adverse impacts to aesthetics, air quality, cultural resources, soil and geology, hydrology and water quality, noise, solid waste and hazardous materials, and transportation and parking. All of these potential impacts are less than significant and would be further reduced through careful coordination and implementation of general BMPs; management, minimization and mitigation measures; and compliance with regulatory requirements, as identified in Section 4. Given the nature of the Proposed Action and the limited recent and potential future, off-campus development in the Walla Walla VAMC campus area, no significant cumulative adverse impacts to any of these resource areas are anticipated. Other potential off-campus development in the area of the Walla Walla VAMC would be subject to zoning requirements and site plan approval by the City of Walla Walla, which would serve to maintain and control regional, potentially cumulative impacts.

The Proposed Action could have cumulative impacts with respect to other recent and future Walla Walla VAMC campus projects. Collectively, these projects provide significant beneficial cumulative impact to the health of Veterans in the region. VA has planned the sequencing of campus improvement projects to avoid potential adverse cumulative effects caused by conducting several construction projects the same time. VA would continue to carefully coordinate projects at the campus to minimize impacts to campus operations and the surrounding area. With this coordination, potential cumulative adverse impacts would be minor.

No significant adverse cumulative impacts to the environment induced by the Proposed Action are anticipated within the region. Close coordination between federal and state agencies, the City of Walla Walla, and community representatives would serve to manage and control cumulative effects within the region, including managing regional transportation increases with adequate infrastructure. Implementation of local land use and resource management plans would serve to control the extent of environmental impacts, and continued planning would ensure future socioeconomic conditions maintain the quality of life the area's residents currently enjoy. Implementation of effective resource management plans and programs should minimize or eliminate any potential cumulative degradation of the natural ecosystem, cultural, or human environment within the region of influence of the Proposed Action.

### 3.17.2 Effects of the No Action Alternative

Under the No Action Alternative, no adverse cumulative impacts due to the Proposed Action would occur.

## 3.18 Potential for Generating Substantial Public Controversy

As discussed in Sections 5 and 6, VA has solicited input from the public and various federal, state, and local government agencies regarding the Proposed Action. Government agencies have provided input; none of the input has identified opposition or controversy related to the Proposed Action. No input was received from the public in response to the scoping notice.VA will publish and distribute the Draft PEA for a 30-day public comment period. Public comments will be considered and addressed in the Final PEA.

# 4.0 MANAGEMENT, MINIMIZATION, AND MITIGATION MEASURES

This section summarizes the management and minimization measures, and mitigation measures (if necessary), that are proposed to minimize and maintain potential adverse effects of the Proposed Action at acceptable, less-than-significant levels.

Per established protocols, procedures, and requirements, VA and its construction contractors would implement BMPs and would satisfy all applicable regulatory requirements in association with the Proposed Action. These "management measures" are described in this PEA, and are included as components of the Proposed Action. "Management measures" are defined as routine BMPs and/or regulatory compliance measures that are regularly implemented as part of proposed activities, as appropriate, in the Walla Walla, Washington area. In general, implementation of such management measures would maintain impacts at acceptable levels for all resource areas analyzed. These are different from "mitigation measures," which are defined as project-specific requirements, not routinely implemented as part of development projects, necessary to reduce identified potentially significant adverse environmental impacts to less-than-significant levels.

The management measures, minimization and mitigation measures summarized in Table 4-1 would be included by VA in the Proposed Action to minimize and maintain adverse effects at less-than-significant levels.

**Table 4-1 Management, Minimization and Mitigation Measures Incorporated into the Proposed Action**

| Technical Resource Area | Measure |
|---|---|
| Aesthetics | Design new Site buildings to be generally consistent/compatible with the architectural character of the Fort Walla Walla Historic District, with red brick cladding on the side facing the parade grounds. |
| Air Quality | Use appropriate dust suppression methods (such as the use of water, dust, palliative, covers, and suspension of earth moving in high wind conditions) during onsite demolition and construction activities. |
| | Stabilize disturbed areas through re-vegetation or mulching if the areas would be inactive for several weeks or longer. |
| | Implement measures to reduce diesel particulate matter emissions from construction equipment, such as reducing idling time and using newer equipment with emissions controls. |
| | Remove asbestos containing materials (ACMs) in accordance with the federal and state requirements prior to building renovation or demolition activities. |
| Cultural and Historic Resources | Conclude NHPA Section 106 review for the Proposed Action. Execute and implement an appropriate Section 106 agreement document to avoid, minimize, and/or mitigate potential adverse effects to historic properties. |
| | Conduct construction activities in accordance with the concluded Section 106 agreement document and the Monitoring Plan and Cultural Resources Discovery Protocols. Should potentially historic or culturally significant items be discovered during project construction, the construction contractor would immediately cease work in the area until VA, a qualified archaeologist, the SHPO, and other consulting parties are contacted to properly identify and appropriately treat discovered items in accordance with applicable state and federal laws. |

| Technical Resource Area | Measure |
|---|---|
| Geology and Soils | Control soil erosion and sedimentation impacts during construction by implementing erosion prevention measures and complying with the WSDE National Pollutant Discharge Elimination System (NPDES) stormwater permit, including the development and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP). The NPDES permit would require stormwater runoff and erosion management using BMPs, such as earth berms, vegetative buffers and filter strips, and spill prevention and management techniques. |
| Hydrology and Water Quality | Control soil erosion and sedimentation impacts during construction by complying with the WSDE NPDES stormwater permit. |
| | Use low impact development practices, to the extent possible, during the Proposed Action design. |
| | Implement stormwater control measures to ensure no additional impact to the existing Walla Walla VAMC campus stormwater management system until such time that system can be upgraded. |
| | Design improvements in accordance with the requirements of Energy Independence and Security Act Section 438 with respect to stormwater runoff quantity and characteristics. |
| Wildlife and Habitat | Use native species to the extent practicable when re-vegetating land disturbed by construction to avoid the potential introduction of non-native or invasive species. |
| | Conduct vegetation clearing between October and March or conduct a survey for active bird nests prior to clearing. |
| | Use downward facing outdoor lighting. |
| Noise | Limit, to the extent possible, construction and associated heavy truck traffic to occur between 7:00 a.m. and 10:00 p.m. on Monday through Friday and between the hours of 9:00 a.m. and 10:00 p.m. on Saturday and Sunday. |
| | Locate stationary operating equipment as far away from sensitive receptors as possible. |
| | Shut down noise-generating heavy equipment when it is not needed. |
| | Maintain equipment per manufacturer's recommendations to minimize noise generation. |
| | Encourage construction personnel to operate equipment in the quietest manner practicable (such as speed restrictions, retarder brake restrictions, engine speed restrictions). |
| Land Use | Comply with the applicable Walla Walla Zoning Code zoning regulations and development standards, to the extent practicable. |
| Wetlands, Floodplains, and Coastal Zone Management | None required. |
| Socioeconomics | Secure construction areas to prevent unauthorized access by children from nearby residential and recreational areas. |

| Technical Resource Area | Measure |
|---|---|
| Community Services | None required. |
| Solid Waste and Hazardous Materials | Comply with applicable federal and state laws governing the use, generation, storage, transportation, and disposal of solid and hazardous materials and wastes. |
| | Remove and properly dispose of lead-impacted soil surrounding Building 1 that exceeds the applicable WSDE Model Toxic Control Act soil cleanup levels or a install barrier (pavement, vegetated clean soil layer, etc.) to prevent incidental exposure following the completion of the construction activities in this area. |
| | Prepare a Soil Management Plan to notify construction contractors of the possible presence of impacted soil and demolition debris at the Site and ensure proper handling and disposal of impacted soil that may be encountered during construction. |
| | Remove the diesel UST located near Building 78 and the diesel UST piping near Building 80 in accordance with applicable WSDE UST Program requirements. |
| | Remove asbestos containing materials (ACMs) in accordance with the federal and state requirements prior to building renovation or demolition activities. |
| | Implement dust control measures, such as the use of water, during building demolition to control lead-based paint emissions. |
| | Register, install, and operate new emergency generator USTs and ASTs in accordance with WSDE petroleum storage tank requirements, as applicable and to the extent required. |
| Traffic, Transportation, and Parking | Ensure construction traffic does not adversely affect traffic flow on local roadways. Time construction traffic and select transportation routes to minimize transportation impacts. |
| | Ensure debris and/or soil is not deposited on local roadways during the demolition and construction activities. |
| Utilities | Submit design plans to each utility provider to determine the specific connection/extension requirements and implement the necessary requirements. |
| Environmental Justice | None required. |

# 5.0 PUBLIC PARTICIPATION

VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR Part 26, VA's regulations for implementing NEPA. Additional guidance is provided in *VA's NEPA Interim Guidance for Projects* (U.S. Department of Veterans Affairs 2010). Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. Members of the public with a potential interest in the Proposed Action are encouraged to participate. A record of the public involvement associated with this PEA is provided in Appendix F.

## 5.1 SCOPING

VA initiated the NEPA public scoping process for the Proposed Action in June 2022, which included a public notice published in the Walla Walla Union-Bulletin on June 16 and 19, 2022. No public comments or input were received in response to the scoping notice.

## 5.2 PUBLIC REVIEW

VA will publish and distribute the Draft PEA for a 30-day public comment period, as announced by a Notice of Availability published in the Walla Walla Union-Bulletin. A copy of the Draft PEA will be made available on the VA Office of Construction and Facilities Management Environmental Program website: (https://www.cfm.va.gov/environmental/index.asp). In addition, a hard copy of the Draft PEA will be made available for public review at the Walla Walla Public Library. VA will also email notification of the release of the Draft PEA to the stakeholders previously contacted during the NEPA scoping and NHPA Section 106 consultation. The notice will contain a link to the Draft PEA on VA's website and will invite stakeholders to provide comments on the document. VA will respond to agency and public comments within the Final PEA.

# 6.0 AGENCIES AND PERSONS CONSULTED

## 6.1 AGENCY COORDINATION

Agencies consulted for this PEA include:

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture, Natural Resource Conservation Service
- Washington State Department of Ecology (various programs)
- Washington Department of Natural Resources (various programs)
- Washington Department of Fish and Wildlife
- Washington State Department of Transportation
- Walla Walla County Conservation District
- City of Walla Walla (various departments)
- Port of Walla Walla
- Blue Mountain Action Council
- Washington Department of Archaeology and Historic Preservation
- Fort Walla Walla Museum
- Washington Trust for Historic Preservation
- Walla Walla State Veterans Home
- Native American Tribes (listed in Section 6.3)

VA initiated the agency scoping process for the Proposed Action in June 2022, which included an email request for information and comments based on available information regarding the Proposed Action.

Responses were received from the Walla Walla State Veterans Home and WSDE. Input provided by these agencies is addressed in the appropriate resource sub-sections of Section 3. Written correspondence from the agencies is provided in Appendix B. The following summarizes that input, which VA used to focus this PEA's analysis:

- **Walla Walla State Veterans Home** stated that they are interested in participating in the PEA process.
- **WSDE** stated that the Proposed Action would include demolition and noted that improper disposal of solid waste, including demolition waste, can result in environmental health hazards. WSDE encouraged VA to salvage, reuse, and recycle as much as the demolition waste as possible. Otherwise, the demolition waste must be disposed of at a permitted solid waste facility. WSDE also stated that if the Proposed Action disturbs more than one acre of soil, a Construction Stormwater General Permit may be required.

## 6.2 NATIONAL HISTORIC PRESERVATION ACT SECTION 106 CONSULTATION

The Walla Walla VAMC is located within the boundaries of the Fort Walla Walla Historic District, a property listed in the NRHP. Seven of the eight Seismic Program project buildings (Buildings 1, 68, 69, 75, 77, 78, and 80) are considered contributing resources to the Historic District. In addition, archaeological sites listed and determined eligible for listing in the NRHP are located at the Walla Walla VAMC. VA determined the Proposed Action has the potential to adversely affect historic properties (the project buildings, the Historic District, and archaeological sites); however, the full range of potential

adverse effects cannot be determined until the seismic correction methods have been selected and design plans have been developed. Consequently, VA has determined that it is appropriate to develop a PA to evaluate and address potential historic properties effects as seismic correction methods are selected and designed.

On June 6, 2022, VA initiated NHPA Section 106 consultation for the Proposed Action with DAHP, ACHP, federally-recognized Indian Tribes, the City of Walla Walla (Certified Local Government), the Fort Walla Walla Museum, the Walla Walla State Veterans Home, and the Washington Trust for Historic Preservation. As part of this effort, VA submitted information regarding the undertaking (Proposed Action), the delineation of the APE (the entire Walla Walla VAMC campus and the Walla Walla State Veterans Home), the identification of historic properties, and the assessment of potential adverse effects. A draft PA was included in the consultation package.

VA hosted a meeting with the consulting parties on July 20, 2022, and provided information about the Proposed Action. Representatives of DAHP and ACHP attended the consultation meeting.

The Confederated Tribes of the Umatilla Indian Reservation and Fort Walla Walla Museum responded that they would like to participate in the NHPA Section 106 consultation. The ACHP and the Confederated Tribes of the Umatilla Indian Reservation provided comments regarding the draft PA. Written comments from DAHP are also expected, but have not yet been received.

VA will continue Section 106 consultation with DAHP, ACHP and the other consulting parties. It is anticipated that the final Section 106 agreement document will include phased project design review by DAHP and other consulting parties to avoid and/or minimize adverse effects to historic properties. If adverse effects cannot be adequately avoided or minimized, mitigation would be completed. Anticipated mitigation measures would include preparation of a Historic Resource Management Plan to assist in the stewardship of the campus's historic resources and cultural properties and building documentation in accordance with the HABS Level II standards. Proposed Action construction activities would be conducted in accordance with the Monitoring Plan and Cultural Resources Discovery Protocol (or an updated plan) to ensure that any archaeological resources that may be encountered are properly handled.

With the execution of the Section 106 agreement document and implementation of its stipulations, cultural resources impacts would be less than significant. In the event that an appropriate Section 106 agreement or the Section 106 agreement document stipulations cannot be reached, additional NEPA analysis would take place to analyze potentially significant impacts to the Fort Walla Walla Historic District.

Section 106 correspondence is provided in Appendix C.

## 6.3 NATIVE AMERICAN CONSULTATION

VA initiated consultation with six federally-recognized Indian Tribes (Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes and Bands of the Yakama Indian Nation, Nez Perce Tribe, and the Wanapum Tribe) as part of this NEPA and NHPA Section 106 process, in accordance with 36 CFR 800.2 and EO 13175, *Consultation and Coordination with Indian Tribal Governments*, November 2000. These Tribes, identified as having possible ancestral ties to the area of the Walla Walla VAMC campus, were invited by VA to participate in the NHPA Section 106 consultation process as Sovereign Nations per EO 13175. The Confederated Tribes of the Umatilla Indian Reservation expressed interest in being a consulting party in the NHPA Section 106 process for the undertaking. The Confederated Tribes of the Colville Reservation responded that the Site is not in their area of interest and they are not interested in participating in the NHPA Section 106 consultation. No other Tribes have responded or elected to participate in the NHPA Section 106 consultation process.

Tribal correspondence is provided in Appendix C.

# 7.0 LIST OF PREPARERS

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# 9.0 GLOSSARY

**100-Year Flood –** A flood event of such magnitude that it occurs, on average, every 100 years; this equates to a one percent chance of it occurring in a given year.

**Aesthetics –** Pertaining to the quality of human perception of natural beauty.

**Ambient -** The environment as it exists around people, plants, and structures.

**Ambient Air Quality Standards -** Those standards established under the Clean Air Act to protect health and welfare.

**Aquifer -** An underground geological formation containing usable amounts of groundwater which can supply wells and springs.

**Asbestos -** Incombustible, chemical-resistant, fibrous mineral forms of impure magnesium silicate used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters. Asbestos is a carcinogenic substance.

**Attainment Area -** Region that meets the National Ambient Air Quality Standard (NAAQS) for a criteria pollutant under the Clean Air Act.

**Bedrock -** The solid rock that underlies all soil, sand, clay, gravel and loose material on the earth's surface.

**Best Management Practices (BMPs) -** Methods, measures, or practices to prevent or reduce the contributions of pollutants to U.S. waters. Best management practices may be imposed in addition to, or in the absence of, effluent limitations, standards, or prohibitions (AR 200-1).

**Commercial land use** – Land use that includes private and public businesses (retail, wholesale, etc.), institutions (schools, churches, etc.), health services (hospitals, clinics, etc.), and military buildings and installations.

**Contaminants -** Any physical, chemical, biological, or radiological substances that have an adverse effect on air, water, or soil.

**Council on Environmental Quality (CEQ) -** An Executive Office of the President composed of three members appointed by the President, subject to approval by the Senate. Each member shall be exceptionally qualified to analyze and interpret environmental trends, and to appraise programs and activities of the federal government. Members are to be conscious of and responsive to the scientific, economic, social, aesthetic, and cultural needs of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

**Criteria Pollutants -** The Clean Air Act of 1970 required the USEPA to set air quality standards for common and widespread pollutants in order to protect human health and welfare. There are six "criteria pollutants": ozone ($O_3$), carbon monoxide (CO), sulfur dioxide ($SO_2$), lead (Pb), nitrogen dioxide ($NO_2$), and particulate matter.

**Cultural Resources** - The physical evidence of our Nation's heritage. Included are: archaeological sites; historic buildings, structures, and districts; and localities with social significance to the human community.

**Cumulative Impact -** The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

**Decibel (dB) -** A unit of measurement of sound pressure level.

**Direct Impact -** A direct impact is caused by a Proposed Action and occurs at the same time and place.

**Emission -** A release of a pollutant.

**Endangered Species** - Any species which is in danger of extinction throughout all or a significant portion of its range.

**Environmental Assessment (EA) -** An EA is a publication that provides sufficient evidence and analyses to show whether a proposed system will adversely affect the environment or be environmentally controversial.

**Erosion** - The wearing away of the land surface by detachment and movement of soil and rock fragments through the action of moving water and other geological agents.

**Agricultural land** - Cropland, pastures, meadows, and planted woodland.

**Fauna** - Animal life, especially the animal characteristics of a region, period, or special environment.

**Flora -** Vegetation; plant life characteristic of a region, period, or special environment.

**Floodplain** - The relatively flat area or lowlands adjoining a river, stream, ocean, lake, or other body of water that is susceptible to being inundated by floodwaters.

**Fugitive Dust** - Particles light enough to be suspended in air, but not captured by a filtering system. For this document, this refers to particles put in the air by moving vehicles and air movement over disturbed soils at construction sites.

**Geology** - Science which deals with the physical history of the earth, the rocks of which it is composed, and physical changes in the earth.

**Groundwater** - Water found below the ground surface. Groundwater may be geologic in origin and as pristine as it was when it was entrapped by the surrounding rock or it may be subject to daily or seasonal effects depending on the local hydrologic cycle. Groundwater may be pumped from wells and used for drinking water, irrigation, and other purposes. It is recharged by precipitation or irrigation water soaking into the ground. Thus, any contaminant in precipitation or irrigation water may be carried into groundwater.

**Hazardous Substance -** Hazardous materials are defined within several laws and regulations to have certain meanings. For this document, a hazardous material is any one of the following:

Any substance designated pursuant to section 311 (b)(2)(A) of the Clean Water Act.

Any element, compound, mixture, solution, or substance designated pursuant to Section 102 of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Any hazardous substance as defined under the Resource Conservation and Recovery Act (RCRA).

Any toxic pollutant listed under TSCA.

Any hazardous air pollutant listed under Section 112 of the Clean Air Act.

Any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to Subsection 7 of TSCA.

The term does not include: 1) Petroleum, including crude oil or any thereof, which is not otherwise specifically listed or designated as a hazardous substance in a above. 2) Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). A list of hazardous substances is found in 40 CFR 302.4.

**Hazardous Waste -** A solid waste which, when improperly treated, stored, transported, or disposed of, poses a substantial hazard to human health or the environment. Hazardous wastes are identified in 40 CFR 261.3 or applicable foreign law, rule, or regulation.

**Hazardous Waste Storage -** As defined in 40 CFR 260.10, ". . . the holding of hazardous waste for a

temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere".

**Hydric Soil** - A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-lacking) conditions that favor the growth and regeneration of hydrophytic vegetation. A wetland indicator.

**Indirect Impact -** An indirect impact is caused by a Proposed Action that occurs later in time or farther removed in distance, but is still reasonably foreseeable. Indirect impacts may include induced changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural and social systems. For example, referring to the possible direct impacts described above, the clearing of trees for new development may have an indirect impact on area wildlife by decreasing available habitat.

**Industrial Land Use** – Land uses of a relatively higher intensity that are generally not compatible with residential development. Examples include light and heavy manufacturing, mining, and chemical refining.

**Isolated Wetland** – Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, but do not have a direct connection to the Waters of the U.S.

**Jurisdictional Wetland** – Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, and have a direct connection to the Waters of the U.S. These wetlands are regulated by the USACE.

**Listed Species** - Any plant or animal designated by a state or the federal government as threatened, endangered, special concern, or candidate species.

**Mitigation** - Measures taken to reduce adverse impacts on the environment.

**Mobile Sources -** Vehicles, aircraft, watercraft, construction equipment, and other equipment that use internal combustion engines for energy sources.

**Monitoring** - A process of inspecting and recording the progress of mitigation measures implemented.

**National Ambient Air Quality Standards (NAAQS)** - Nationwide standards set up by the USEPA for widespread air pollutants, as required by Section 109 of the Clean Air Act. Currently, six pollutants are regulated by primary and secondary NAAQS: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide.

**National Environmental Policy Act (NEPA)** - U.S. statute that requires all federal agencies to consider the potential effects of major federal actions on the human and natural environment.

**Non-attainment Area** - An area that has been designated by the EPA or the appropriate State air quality agency as exceeding one or more national or state ambient air quality standards.

**Parcel -** A plot of land, usually a division of a larger area.

**Particulates or Particulate Matter -** Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog found in air.

**Physiographic Region -** A portion of the Earth's surface with a basically common topography and common morphology.

**Pollutant** - A substance introduced into the environment that adversely affects the usefulness of a resource.

**Potable Water -** Water which is suitable for drinking.

**Prime Agricultural land** - A special category of highly productive cropland that is recognized and described by the U.S. Department of Agriculture's Natural Resource Conservation Service and receives special protection under the Surface Mining Law.

**Remediation -** A long-term action that reduces or eliminates a threat to the environment.

**Riparian Areas -** Areas adjacent to rivers and streams that have a high density, diversity, and productivity of plant and animal species relative to nearby uplands.

**Sensitive Receptors -** Include, but are not limited to, asthmatics, children, and the elderly, as well as specific facilities, such as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, and childcare centers.

**Significant Impact -** According to 40 CFR 1508.27, "significance" as used in NEPA requires consideration of both context and intensity.

Context. The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the Proposed Action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action.

**Soil** - The mixture of altered mineral and organic material at the earth's surface that supports plant life.

**Solid Waste** - Any discarded material that is not excluded by section 261.4(a) or that is not excluded by variance granted under sections 260.30 and 260.31.

**Threatened species** - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**Topography -** The relief features or surface configuration of an area.

**Toxic Substance** - A harmful substance which includes elements, compounds, mixtures, and materials of complex composition.

**Waters of the United States** - Include the following: Territorial seas and traditional navigable waters; perennial and intermittent tributaries that contribute surface water flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters.

**Watershed** - The region draining into a particular stream, river, or entire river system.

**Wetlands -** Areas that are regularly saturated by surface or groundwater and, thus, are characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include swamps, bogs, fens, marshes, and estuaries.

**Wildlife Habitat** - Set of living communities in which a wildlife population lives.