

**Draft
Environmental Assessment
Proposed Seismic Upgrades and Renovations
United States Department of Veterans Affairs
Puget Sound Health Care System
American Lake Division Campus
Tacoma, WA**

October 2021



**U.S. Department of Veterans Affairs
Office of Construction and Facilities Management**



EXECUTIVE SUMMARY

The United States (U.S.) Department of Veterans Affairs (VA) prepared this environmental assessment (EA) to identify, analyze, and document the potential environmental impacts associated with proposed seismic upgrades and renovations at the VA Puget Sound Health Care System American Lake Division Campus, located at 9600 Veterans Drive in Tacoma, WA.

VA prepared this EA in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code 4321-4370h), as implemented by the Council on Environmental Quality regulations (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* (VA 2010).

Purpose

The purpose of the Proposed Action is to address existing seismic deficiencies at the VA Puget Sound Health Care System American Lake Division Campus to meet VA seismic design requirements, and to provide for renovations to meet regulatory and policy requirements. The Proposed Action is needed to improve safety and reduce existing seismic risks for Veterans, staff, and visitors, and to ensure the continuity of health care services to Veterans following a seismic event.

Proposed Action

VA proposes to implement a phased program consisting of seismic upgrades and renovation activities over five to seven years to address seismic deficiencies at Buildings 7, 8, 9, 81, and 111. Overall, the majority of the seismic upgrades would occur within the interior confines of each building; however, VA would perform limited upgrades to some building exteriors and upgrade utilities within and leading to each building, as needed. The proposed renovations would consist of improvements to existing campus roads, pathways, intersections, and curbs.

Alternatives

VA explored and considered potential reasonable alternatives to the Proposed Action. Through this process, VA determined that this EA would evaluate the Proposed Action and the No Action Alternative. Under the No Action Alternative, VA would not implement the Proposed Action. Existing seismic issues and associated seismic risks would persist at the campus. The No Action Alternative does not meet the purpose of and need for the Proposed Action. However, as required by the VA NEPA regulations (38 CFR Part 26), VA evaluates the No Action Alternative in this EA. The No Action Alternative also provides a benchmark against which VA can compare the impacts of the Proposed Action.

Summary of Potential Environmental Consequences

Table ES-1 lists the environmental resources evaluated and summarizes the potential impacts to each resource from the Proposed Action and No Action Alternative.

Table ES-1 Summary of Potential Environmental Consequences

Resource	Proposed Action	No Action Alternative
Aesthetics	Less than significant impact	No impact
Air Quality and Climate Change	Less than significant impact	Less than significant impact
Cultural Resources	Less than significant adverse effect ¹	No impact
Geology and Soils	Less than significant impact to geology, topography, and soils; beneficial impact to seismic concerns	No impact to geology, topography, and soils; significant adverse impact due to seismic concerns ²
Hydrology and Water Quality	Less than significant impact	No impact
Wildlife and Habitat	Less than significant impact	No impact
Noise and Vibration	Less than significant impact	No impact
Land Use	No impact	No impact
Floodplains, Wetlands, and Coastal Zone Management	No impact to floodplains; less than significant impact to wetlands and coastal zone resources	No impact
Socioeconomics	Beneficial impact	No impact
Community Services	Beneficial impact	Significant adverse impact ²
Solid Waste and Hazardous Materials	Less than significant impact	No impact
Transportation and Parking	Beneficial impact	Less than significant impact
Utilities	Beneficial impact	Less than significant impact
Environmental Justice	No impact	No impact

Notes: ¹ Preliminary conclusion, subject to outcome of Section 106 consultation.

² Significant impacts due to continuation of seismic concerns and related risks to people and property. These concerns are the need for the Proposed Action.

Public Involvement and Agency Consultation

VA published a NEPA scoping notice in the Tacoma News Tribune on June 27th and 28th, 2021, and mailed stakeholder scoping notification letters. VA did not receive any substantive scoping comments.

VA has made this Draft EA available for public review. VA published a notice of availability of the Draft EA in the Tacoma News Tribune, posted the notice of availability and the Draft EA to the VA Office of Construction & Facilities Management website (www.cfm.va.gov/environmental/index.asp), and notified stakeholders via email. VA will summarize and address the comments on this Draft EA in the Final EA.

VA is initiating consultation with the Washington State Historic Preservation Office, tribes, and the certified local government (Pierce County) in accordance with Section 106 of the National Historic Preservation Act. VA will update the Final EA to reflect the outcome of Section 106 consultation.

Conclusion

Based on the analysis contained in this EA, VA concludes that the Proposed Action would not have a significant effect on the human environment and, therefore, an environmental impact statement will not be prepared. Following the public comment period and resolution of any substantive public comments and the completion of Section 106 consultation, VA will prepare and publish a Final EA.

Compliance with Section 508 of the Rehabilitation Act

This document is compliant with Section 508 of the Rehabilitation Act. This allows assistive technology to be used to obtain the available information from the document. Due to the nature of graphics, figures, tables, and images occurring in the document, accessibility may be limited to a descriptive title for some items.

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ABBREVIATIONS AND ACRONYMS

ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
APE	area of potential effect
BMP(s)	best management practice(s)
CEQ	Council on Environmental Quality
CFM	Office of Construction & Facilities Management
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act
dB	decibel
dBA	A-weighted decibel
DoD	Department of Defense
DOSH	Washington State Department of Occupational Safety and Health
EA	environmental assessment
Ecology	State of Washington Department of Ecology
EO	Executive Order
FEMA	Federal Emergency Management Agency
IPaC	Information for Planning and Consultation
JBLM	Joint Base Lewis-McChord
LBP	lead-based paint
L _{eq}	equivalent continuous sound level
LOS	level of service
MOA	memorandum of agreement
MS4	Municipal Separate Storm Sewer System
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	notice of availability
NO _x	oxides of nitrogen
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PTSD	post-traumatic stress disorder
SF	square foot/feet
SHPO	State Historic Preservation Office

U.S.	United States
U.S.C.	U.S. Code
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VA	U.S. Department of Veterans Affairs
VAPSHCS	VA Puget Sound Health Care System
VHA	Veterans Health Administration
VOCs	volatile organic compounds
WAC	Washington Administrative Code

CHAPTER 1 INTRODUCTION AND PURPOSE OF AND NEED FOR THE ACTION

1.1 INTRODUCTION

The United States (U.S.) Department of Veterans Affairs (VA) has prepared this environmental assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code [U.S.C.] 4321-4370h), as implemented by the Council on Environmental Quality (CEQ) regulations (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* (VA 2010).

NEPA requires federal agencies to consider the environmental effects of their proposed actions. This EA evaluates the potential effects on the human environment resulting from proposed seismic upgrades at the VA Puget Sound Health Care System (VAPSHCS) American Lake Division Campus, located at 9600 Veterans Drive in Tacoma, WA (Figure 1-1).

VA will use this environmental impact analysis of the Proposed Action to determine whether it supports a finding of no significant impact or if it is necessary to prepare an environmental impact statement (if there is a potential for significant impacts). As required under NEPA, this EA considers public, agency, and tribal input into the federal decision-making process, provides the federal decision-maker with an understanding of potential environmental effects of the decision before making it, identifies measures to reduce potential environmental effects, and documents the NEPA process.

1.2 PURPOSE AND NEED

The purpose of the Proposed Action is to address existing seismic deficiencies at the VAPSHCS American Lake Division Campus to meet VA seismic design requirements and to provide for renovations to meet regulatory and policy requirements. VA Handbook H-18-8, *Seismic Design Requirements* (VA 2019); VA Directive 7512, *Seismic Safety of VA Buildings* (VA 2017); and Executive Order (EO) 13717, *Establishing a Federal Earthquake Risk Management Standard*, define VA requirements and policy regarding seismic safety of buildings. These policies identify seismic risk and establish criteria to identify exceptionally high-risk and high-risk VA buildings. They also establish a policy requiring seismic studies for higher priority (critical and essential) buildings in earthquake prone (high and very high risk) areas (VA 2021a).

The Proposed Action is needed to improve safety and reduce existing seismic risks for Veterans, staff, and visitors, and to ensure the continuity of health care services to Veterans following a seismic event. As noted in previous facility condition assessments, several of the campus structures are outdated in terms of seismic design. The campus is located in a very high seismic zone (Figure 1-2), and VA has designated Buildings 7, 8, 9, and 111 as VA Seismic Deficiency Category 2, meaning the buildings may not collapse but may be heavily damaged during a seismic event (VAPSHCS 2020a). In 2001, Building 81 suffered damage from the 6.8 magnitude Nisqually earthquake and VA considers it an extremely high-risk building (VA 2011a). A seismic event would present risks to both personnel and property, and would limit VA's ability to continue operations at the facility as a result of these deficiencies.



Figure 1-1. Regional Location of VAPSHCS American Lake Division Campus, WA

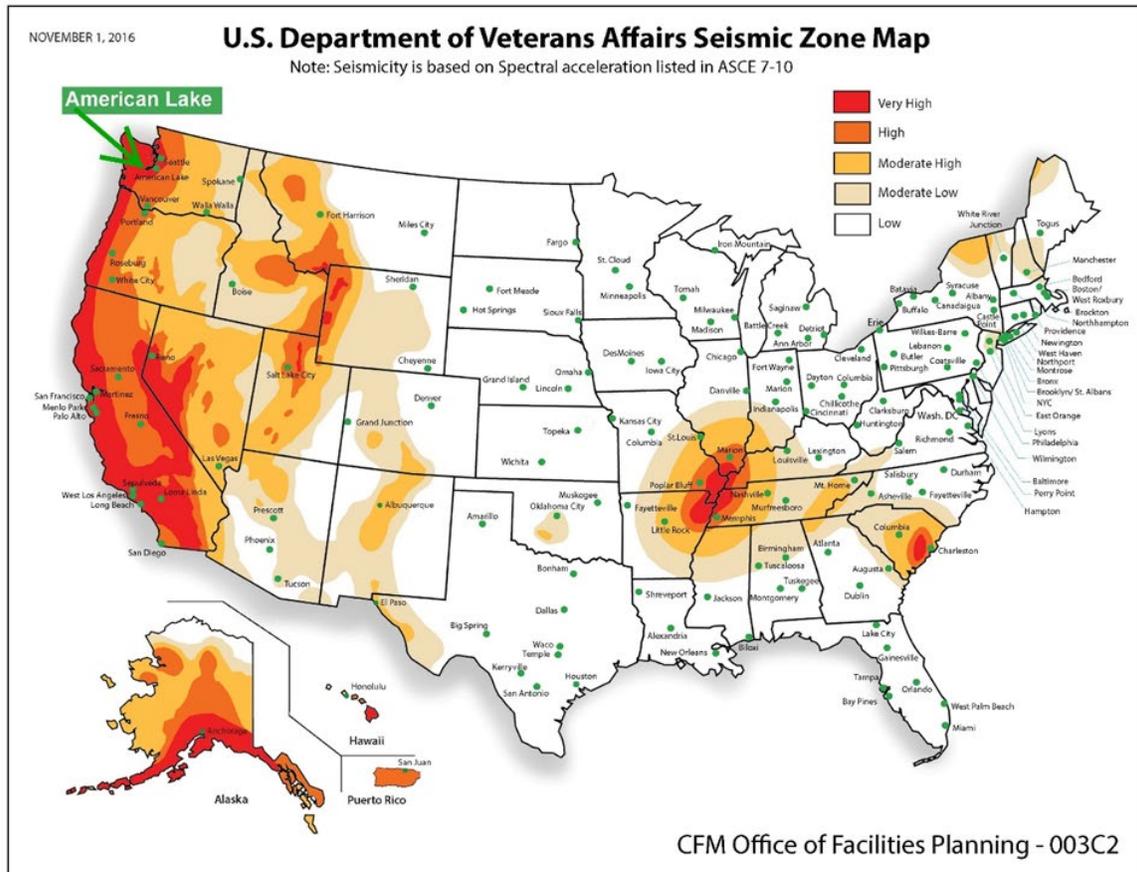


Figure 1-2. Seismic Zone Map (American Lake in a “Very High” Risk Zone)

VA would also perform renovations to comply with the Americans with Disabilities Act (ADA) and other federal and agency requirements to restore facility elements impacted during the structural seismic upgrades and to address renovation needs and comply with current requirements.

Implementing the Proposed Action would address seismic and associated safety risks, enhance VA services to Veterans at the campus, and meet VA’s goal of having all essential facilities remain in operation after a seismic event.

1.3 BACKGROUND

1.3.1 American Lake Campus

The VAPSHCS American Lake Division Campus covers 377 acres on the shore of American Lake in the northwest corner of the 81,000-acre Joint Base Lewis-McChord (JBLM) (Figure 1-3). The Department of Defense (DoD), and the War Department before DoD was established, leases the land from Pierce County (VAPSHCS 2020b). The War Department, in turn, granted the Veterans Bureau (the predecessor to VA) use of the property under a revocable lease agreement in 1923.

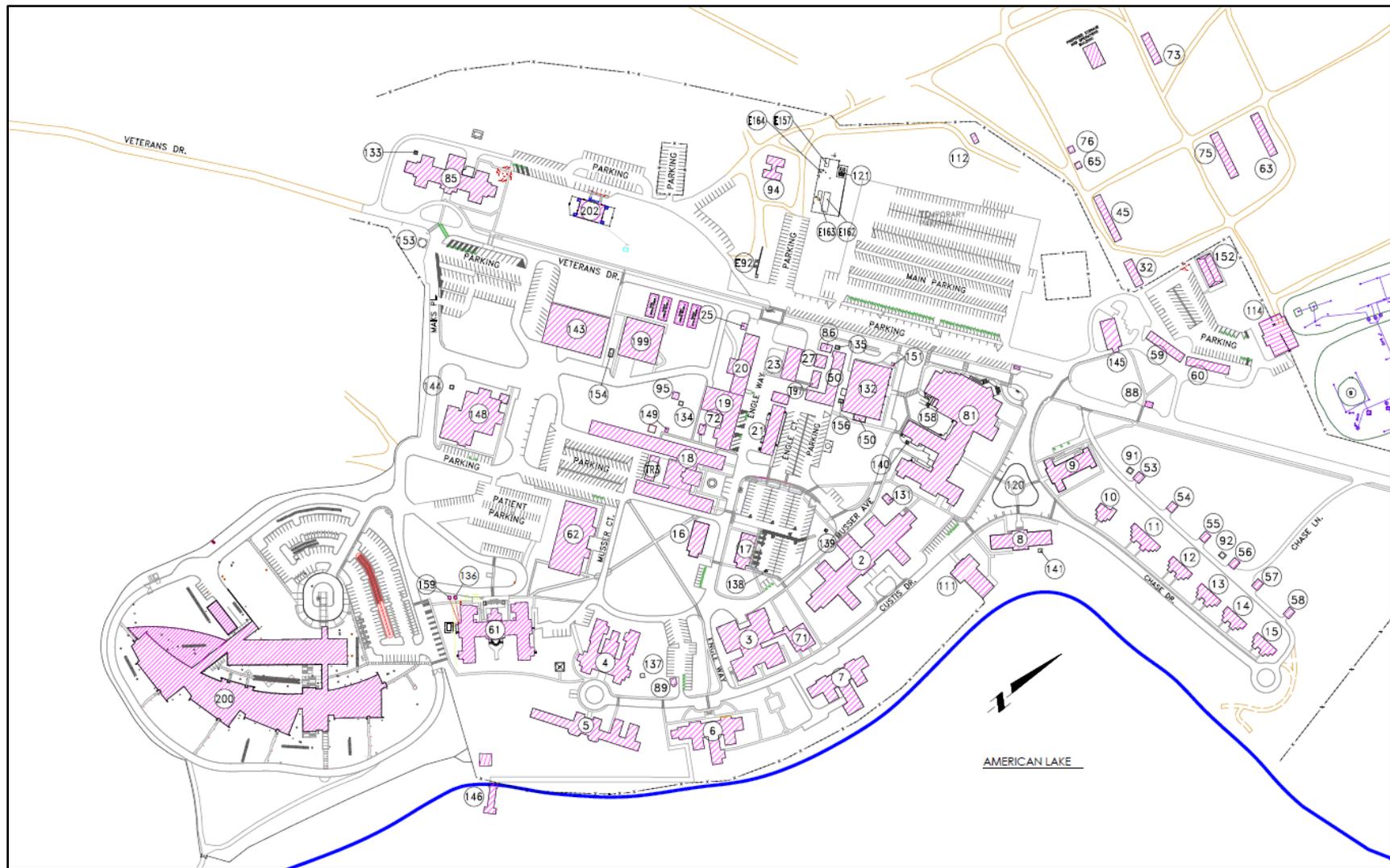


Figure 1-3. VAPSHCS American Lake Division Campus

The Veterans Bureau dedicated Veterans Hospital Number 94 on the campus in 1924, to provide health care to World War I Veterans. In 1947, the Veterans Bureau, which had been elevated to become the Veterans Administration, replaced the original administration buildings and constructed the current main hospital building (Building 81), designing it to match the style of the originally constructed buildings (VA 2011a).

The VAPSHCS provides essential medical services to over 112,000 Veterans living in 14 counties around the Puget Sound. The VAPSHCS is a primary referral site for Veterans' health care services in the northwest, including Alaska, Montana, Idaho, and Oregon (VAPSHCS 2021).

1.3.2 Project Area

The project area consists of five buildings and adjacent areas on the American Lake campus: Buildings 7, 8, 9, 81, and 111 (Figure 1-4). In 2009, the U.S. Department of the Interior, National Park Service listed most of the campus as a historic district on the National Register of Historic Places (NRHP) (*American Lake Veterans Hospital, #09000218*) (National Park Service 2021). All five buildings are contributing elements to the historic district of the American Lake campus. The following paragraphs describe each building.

1.3.2.1 Building 7, Inpatient Mental Health

Building 7, Inpatient Mental Health, constructed in 1923, is an approximately 21,500-square-foot (SF), two-story building with a below-grade crawl space, a partial daylight basement at the northwest wing, and administration spaces and a mechanical room at the southeast wing. The two-story building is of Spanish Colonial Revival design with a clay tile roof and a poured concrete foundation (VAPSHCS 2020b).



Photo 1-1. Building 7

1.3.2.2 Building 8, Clinical Services Administration

Building 8, Clinical Services Administration, is an approximately 15,400 SF two-story building also constructed in 1923. Similar to Building 8, the building also has a clay tile roof and poured concrete foundation (VAPSHCS 2020c).



Figure 1-4. Location of Proposed Building Seismic Upgrades, VAPSHCS American Lake Division Campus, Tacoma, WA



Photo 1-2. Building 8

1.3.2.3 Building 9, Auditorium

Building 9, Recreation and Voluntary Services (the Auditorium), constructed in 1923, is an approximately 8,400 SF, partial two-story building with a 4.5-foot-high crawl space below the first floor and a 22-foot-tall high-bay auditorium. Building 9 has a clay tile roof and a poured concrete foundation (VAPSHCS 2020d).



Photo 1-3. Building 9

1.3.2.4 Building 81, Main Hospital

Building 81, the Main Hospital, was constructed in 1947, covers approximately 93,750 SF, and is roughly H-shaped. It is four stories tall along the central axis with a fifth story penthouse in the middle. There have been a number of additions and renovations, including a large one-story addition to the north wing in the 1990s.



Photo 1-4. Building 81

1.3.2.5 Building 111, Chapel

Building 111, the Chapel, built in 1958, is an approximately 6,200 SF, T-shaped, one-story building with a mechanical mezzanine and a high bay vaulted ceiling nave. The building also has a clay tile roof and poured concrete foundation (VAPSHCS 2020e).



Photo 1-5. Building 111

CHAPTER 2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 DEVELOPMENT OF ALTERNATIVES

NEPA implementing regulations require that the federal agency evaluate reasonable alternatives for meeting the purpose of and need for action, including a “No Action Alternative.” VA explored and considered potential reasonable alternatives to the Proposed Action. Through this process, VA determined that this EA would evaluate the Proposed Action and the No Action Alternative. VA also identified and eliminated one potential alternative from further consideration.

2.2 ALTERNATIVES

2.2.1 Proposed Action

The following activities under the Proposed Action would efficiently meet VA seismic and other requirements and the needs of Veterans. VA proposes to implement a phased building seismic upgrade program to address seismic deficiencies at Buildings 7, 8, 9, 81, and 111. The renovations, whether part of the seismic program or separate from it, would be implemented within the same general time frame.

Overall, the majority of the seismic upgrades would occur within the interior confines of each building; however, VA would perform limited upgrades to some building exteriors. The resulting building finishes would strive to match existing finishes as much as possible and complement the overall campus architecture. No new construction or additions would occur to any building.

The seismic upgrades would also include sustainable design requirements that must be addressed during any upgrade project such as installing light emitting diode lighting, otherwise maximizing energy performance, and installing advanced utility meters.

VA proposes to implement the following seismic upgrades and renovations. Figure 2-1 depicts the locations of the proposed seismic upgrades and the sites of the location-specific renovations.

2.2.1.1 Building 7, Inpatient Mental Health

The proposed activity for Building 7 would consist of seismic upgrades, ADA compliance upgrades, utility upgrades, and roof repairs. Seismic improvements would include applying shotcrete to the interior perimeter of the external walls and adding concrete shear walls within the interior. The ADA compliance upgrades would consist of alterations to the restrooms by expanding restroom stall dimensions and upgrading sinks and toilets. The repair/replacement/relocation of utilities would result in alterations to the building interior and excavation and replacement of soils within five feet of the building perimeter (VAPSHCS 2020b). The materials used for the proposed roof repairs would ensure that the roof would be visually consistent with the existing roof.

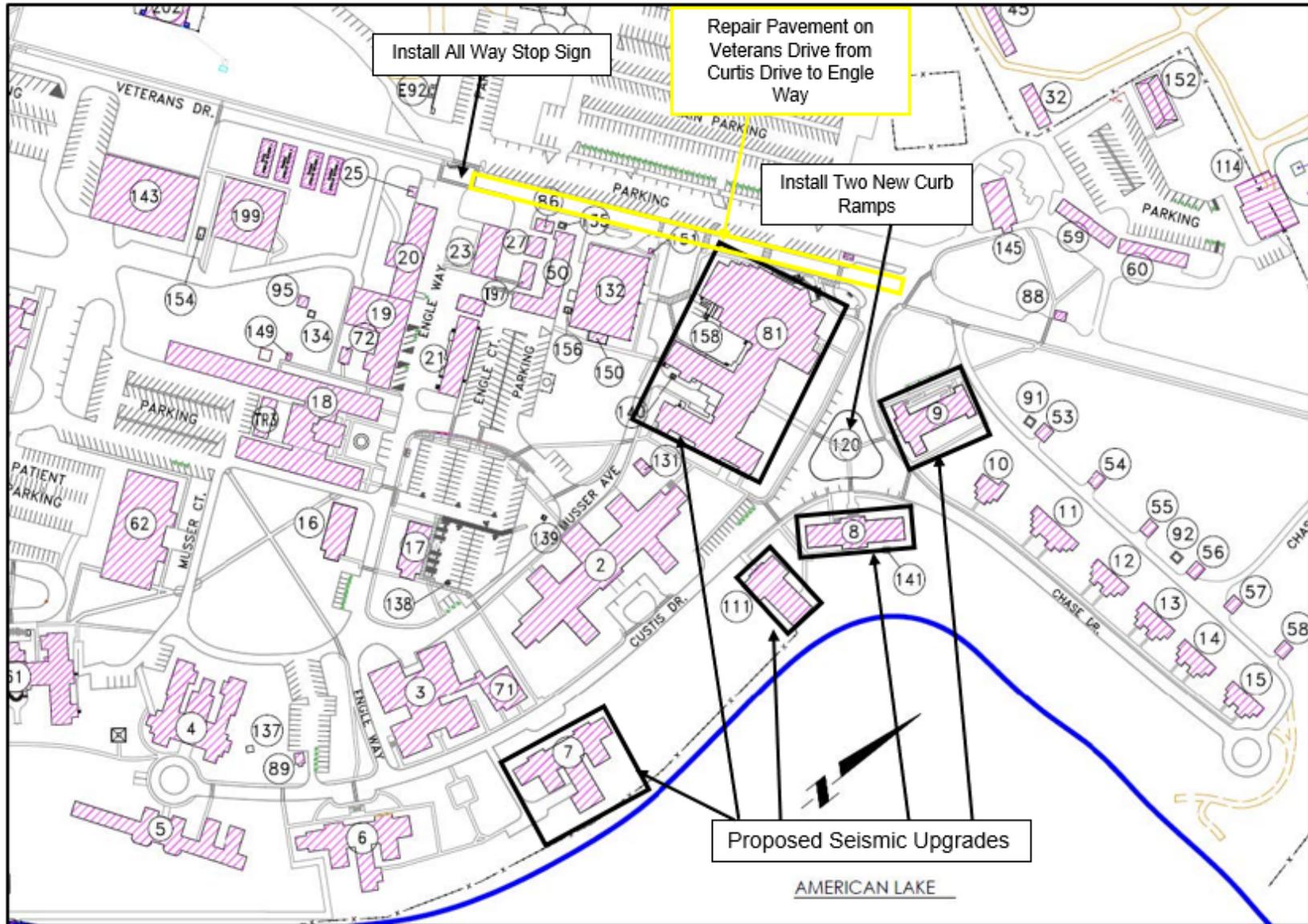


Figure 2-1. Location of Proposed Seismic Upgrades and Renovations

2.2.1.2 Building 8, Clinical Services Administration

The proposed activity for Building 8 would consist of seismic upgrades, ADA compliance upgrades, utility upgrades, and roof repairs. Seismic improvements would include constructing shotcrete walls on both the outside face of the exterior walls and inside face of exterior walls, constructing transverse concrete shear walls, and widening perimeter wall footings. The ADA compliance upgrades would consist of alterations to the restrooms by expanding restroom stall dimensions and upgrading sinks and toilets. The repair/replacement/relocation of utilities would result in alterations to the building interior and excavation and replacement of soils within five feet of the building perimeter (VAPSHCS 2020c).

The materials used for the proposed roof repairs would ensure that the roof would be visually consistent with the existing roof. In addition, the exterior shotcrete wall finish would match the existing exterior building color and texture.

2.2.1.3 Building 9, Auditorium

The proposed activity for Building 9 would consist of seismic upgrades, ADA compliance upgrades, utility upgrades, and roof repairs. Seismic improvements would include constructing shotcrete walls on both the outside face of the exterior walls and the inside face of exterior walls, and widening perimeter wall footings. The perimeter wall footing widening would require excavating (and then replacing) soil immediately adjacent to the building perimeter. The ADA compliance upgrades would consist of expanding restroom stall dimensions and upgrading sinks and toilets. The repair/replacement/relocation of utilities would result in alterations to the building interior and excavation and replacement of soils within five feet of the building perimeter (VAPSHCS 2020d).

The materials used for the proposed roof repairs would ensure that the roof would be visually consistent with the existing roof. In addition, the exterior shotcrete wall finish would match the existing exterior building color and texture.

2.2.1.4 Building 81, Main Hospital

In a separate project, VA plans to replace the primary functions of Building 81 with a new building, Building 201, located to the west of Building 81. An EA for the Building 201 project found the project would result in no significant impacts (VA 2011a). Building 81 will continue to operate, providing existing and new services as described in the 2011 EA. VA plans to start construction of Building 201 in 2022.

Once the new Building 201 is functioning, VA proposes to perform seismic strengthening and renovation actions to Building 81. The activity would consist of structural and soft seismic upgrades and a complete interior remodel to support remaining services and additional programmed space related to increased patient visits. The resulting exterior finishes of Building 81 would be consistent with the existing finish.

2.2.1.5 Building 111, Chapel

The proposed activity for Building 111 would consist of seismic upgrades, ADA compliance upgrades, utility upgrades, and roof repairs. Seismic improvements would include constructing shotcrete walls on the inside face of exterior walls, constructing transverse concrete shear walls, and widening perimeter wall footings. The perimeter wall footing widening would require excavating (and replacing) soil adjacent to the building perimeter.

The ADA compliance upgrades would consist of alterations to the interior spaces, primarily restrooms by expanding stall dimensions and upgrading sinks and toilets. Utility repair/replacement/relocation would result in alterations to the building interior and excavation and replacement of soils within five feet of the building perimeter (VAPSHCS 2020e).

The materials used for the proposed roof repairs would ensure that the roof would be visually consistent with the existing roof. In addition, the exterior shotcrete wall finish would match the existing exterior building color and texture.

2.2.1.6 Campus Renovations

The Proposed Action includes several renovations at the American Lake campus. The renovations would consist of the following activities:

- Upgrading, installing, and/or improving roads and pathways throughout the campus for ADA compliance and National Fire Protection Association fire access standards.
- Replacing non-compliant curb ramps throughout the campus.
- Installing two new curb ramps at the existing crosswalk to the flagpole island between Buildings 8 and 81 (see Figure 2-1).
- Installing an all-way stop control at the intersection of Veterans Drive and Engle Way (see Figure 2-1).
- Repairing pavement on Veterans Drive from Custis Drive to Engle Way (see Figure 2-1).

2.2.1.7 Construction Staging Areas

Contractors would use staging areas for temporarily storing materials and equipment in previously disturbed areas. All staging areas would be located on the campus. Workers would drive to the campus and park in designated construction parking zones. Deliveries of equipment and materials would occur during normal working hours.

2.2.1.8 Hazardous Materials Management

Prior to upgrades and renovations, permitted workers would abate and properly dispose of all hazardous materials. Workers would sort removed materials, appropriately stockpile them in a secure area, and then direct the materials for recycling or appropriate disposal at the nearest landfill or hazardous materials collection station.

2.2.1.9 Sustainable Design

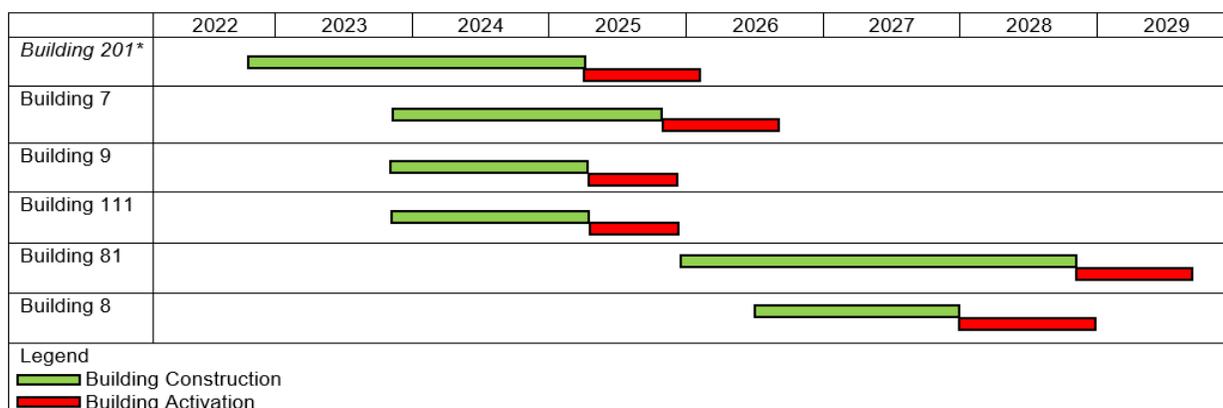
VA Office of Construction & Facilities Management (CFM) Policy Memorandum 003C-2021-21, *Green Building Certification Requirements*, established green building certification requirements to support VA facility compliance with applicable laws. The policy requires that all VA major construction projects, including major upgrades/renovations, must be certified using U.S. Green Building Council's Leadership in Energy and Environmental Design certification system and achieve a minimum certification level of silver (VA 2021b).

2.2.1.10 Timeline

Through an inter-agency agreement with the U.S. Army Corps of Engineers, VA would implement the seismic upgrades and renovations in five separate building-specific elements. The construction would begin with Buildings 7, 9, and 111 at about the same time, followed by Building 81, and then Building 8. Each individual construction element would last approximately two years, with the schedules overlapping for individual buildings. The total duration of the Proposed Action construction activity would be approximately five years.

Figure 2-2 summarizes the estimated construction (in green) and activation¹ (in red) durations for each of the five building-specific seismic upgrade elements. Figure 2-2 also presents the separate (that is, not part of this Proposed Action) but related construction of Building 201 as it demonstrates how, once Building 201 is operable, workers would initiate the proposed upgrades to Building 81. Construction and operation of Building 201 is not part of the Proposed Action analyzed in this EA; as discussed in Section 2.2.1.4, VA analyzed the project in a previous EA (VA 2011a). VA anticipates completing the renovations within the same overall time frame depicted in Figure 2-2.

Figure 2-2. Approximate Timeline for Implementing the Proposed Action



Note: * Building 201 construction is not part of the Proposed Action; however, it does provide scheduling and cumulative effects considerations for the Proposed Action.

By implementing the upgrades and renovations in phases, VA would ensure continuity of care to Veterans and minimize impacts to operations. Due to the scale of the upgrade of Building 81 in particular, other campus buildings would temporarily host clinical services.

¹ Activation consists of performing the activities to ready a recently renovated or constructed building for use. These include activities such as furniture, fixture, and equipment planning and procurement; operational and transition planning; move management; building turnover; installing major medical equipment; and project close-out.

2.2.1.11 Post-Construction Actions

Upon completion of the Proposed Action, there would be no anticipated change in staffing levels or services. The Proposed Action would complement other recently completed, ongoing, and planned projects at the campus (such as Building 201), supporting an overall improvement in the facilities and services at the campus.

Under the Proposed Action there would be no alteration in vehicle circulation or permanent increase or decrease in parking spaces at each building. There may be a temporary loss of a handful of parking spaces around the perimeter of each building during the building-specific upgrade and renovation activity.

2.2.2 No Action Alternative

Under the No Action Alternative, VA would not implement the Proposed Action. Existing seismic issues and associated seismic risks would persist at the campus. The No Action Alternative does not meet the purpose of and need for the Proposed Action. However, as required by the VA NEPA regulations (38 CFR Part 26), the No Action Alternative is evaluated in VA EAs and provides a benchmark against which VA can compare the impacts of the Proposed Action.

2.3 ALTERNATIVE IDENTIFIED BUT ELIMINATED FROM FURTHER CONSIDERATION

VA considered demolishing all five buildings and constructing new buildings but determined that this approach would be cost-prohibitive. In addition, due to their status as contributing elements of the historic district, significant impacts to cultural resources would likely result. Therefore, VA eliminated this potential alternative from further consideration.

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the affected environment and evaluates the potential environmental effects of the Proposed Action and No Action Alternative. The affected environment includes the project area, and depending on the resource, a region surrounding the project area.

CEQ regulations (40 CFR 1501.3) specify that in considering whether the effects of a proposed action are significant, agencies shall analyze the potentially affected environment and degree of the effects of the action. In considering the potentially affected environment, agencies should consider, as appropriate to the specific action, the affected area (national, regional, or local) and its resources, such as listed species and designated critical habitat under the Endangered Species Act. Significance varies with the setting of the proposed action. For instance, in the case of this site-specific Proposed Action, significance usually depends only upon the effects in the American Lake area.

In considering the degree of the effects, this EA considers the following:

- Both short- and long-term effects.
- Both beneficial and adverse effects.
- Effects on public health and safety.
- Effects that would violate federal, state, tribal, or local laws protecting the environment.

For each resource, this EA identifies the methodology and general assumptions used in the analysis and identifies management measures such as best management practices (BMPs), as well as mitigation and monitoring measures, where applicable.

The Proposed Action would comply with all applicable federal, state, and local laws and regulations, including those listed in Appendix A.

In many instances, the existence of such laws and regulations renders impacts that might have occurred in the absence of such laws highly unlikely and not reasonably foreseeable. In other instances, such laws and regulations lessen potential impacts to levels that are not significant. Because compliance with applicable laws is mandatory, this EA does not identify compliance with the requirements of such laws and regulations as mitigation.

3.1 AESTHETICS

Aesthetics refers to the visual interaction between an individual and the environment. Visual resources may consist of natural landscapes and views or man-made features. Rare or unique natural settings or historic properties are considered to have a high sensitivity. Landscapes that are not unique or have been altered through modern development tend to have lesser sensitivity and thus lower aesthetic quality.

3.1.1 Affected Environment

The American Lake campus has many unique aesthetic attributes and thus exhibits an overall high visual quality. The campus is located along the shores of American Lake ringed with numerous mature Douglas-fir trees and lawns that create a parklike setting (Photo 3-1).



Photo 3-1. Representative photo of parklike setting of American Lake campus showing portions of Buildings 7 (left), Building 6 (right), and grove of trees (G20) fronting American Lake.

Most of the main buildings are oriented to face the lake to take advantage of the views. There is a view to the northwest beyond the parking lot of old fields, some remnant prairie, and forested areas on Fort Lewis. At the time of the site visit (June 2021), contractors observed minor construction and maintenance projects throughout the campus. The campus is located adjacent to JBLM (separated by a fence) and surrounding tall trees effectively screen the campus from nearby private property.

The campus includes a designated historic district that encompasses the entrance along Veteran's Drive to Curtis Drive and the original core of the campus, which is mostly south of Veteran's Drive. Within the historic district, the Spanish Colonial Revival architecture of the original buildings is stately and elegant with stucco walls, red tile roofs, and prominent entrances. The historic district is a sensitive visual resource.

3.1.2 Environmental Consequences

3.1.2.1 Proposed Action

The presence of construction equipment, vehicles, materials, and related activity would temporarily impact the visual setting of the American Lake campus during seismic upgrades and renovations. This visual impact would be localized to the immediate area around the activities. VA would not demolish any buildings nor construct any new buildings. Furthermore, VA would not remove any large or mature trees. Therefore, there would be no change to the overall visual setting.

The majority of the seismic upgrades would occur within the interior confines of each building; however, VA would perform limited upgrades to some building exteriors. The resulting building finishes would strive to match existing finishes as much as possible and complement the overall campus architecture. The materials used for proposed roof repairs would be consistent with the existing roof so that the resulting roof would be visually consistent with the existing roof.

The proposed renovations would improve existing vehicle and walking circulation. The resulting improvements would have no impact on the visual setting.

At the conclusion of the Proposed Action, the resulting seismic upgrades and renovations would be visually consistent with the campus and the overall visual setting of the campus. There would be no change to the viewshed or visual quality. Therefore, the Proposed Action would result in a less than significant impact to aesthetics.

3.1.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. The campus would continue to exhibit high visual quality. Therefore, the No Action Alternative would result in no impact to aesthetics.

3.2 AIR QUALITY AND CLIMATE CHANGE

Air quality refers to the concentration of air contaminants in a specific location. Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and prevailing meteorological conditions. Considerations related to climate change include the effects of a project on climate change (through greenhouse gas emissions or carbon sequestration), the effects of climate change on a proposed project, and the implications of climate change for the environmental effects of a proposed action.

The *Final Air Quality Report, American Lake VA Medical Center – American Lake, WA* (VA CFM 2021a) provides detailed information on the discussion presented in the following assessment.

3.2.1 Affected Environment

The U.S. Environmental Protection Agency (USEPA), the State of Washington Department of Ecology (Ecology) and the Puget Sound Clean Air Agency developed and enforce air quality regulations in the region. The Clean Air Act of 1970, 42 U.S.C. Section 7401 et seq. amended in 1977 and 1990, is the primary federal statute governing air pollution. One purpose of the Clean Air Act is to establish national ambient air quality standards (NAAQS) and classify areas as to their attainment status relative to the NAAQS. Attainment is the achievement of ambient concentrations below specified levels determined to be protective of human health by the USEPA.

The six criteria pollutants for the NAAQS are: particulate matter less than 10 and 2.5 micrometers in diameter (PM₁₀ and PM_{2.5}), carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, lead, and ozone. Volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) are known as ozone precursors because they are pollutants that form ozone. The USEPA and Ecology also regulate greenhouse gases (GHG) including carbon dioxide (CO₂). GHGs trap heat in the atmosphere and thus contribute to climate change. The global warming potential of different GHGs is expressed in relation to the global warming potential of CO₂, and amounts of

GHGs, individually or combined, are presented as mass (usually metric tons) of CO₂ equivalents (CO₂e).

The American Lake campus is located in Pierce County, WA within the boundary of JBLM and Puget Sound Intrastate Air Quality Control Region. Washington State does not have any NAAQS nonattainment or maintenance areas (USEPA 2021a). Thus, the campus is located within an attainment area for all criteria pollutants.

Stationary permitted sources of emissions at the campus consist of three steam boilers, dust collectors on woodworking equipment, and a paint spray booth. Overall, the campus is not a major source of air emissions from stationary sources. Vehicle trips conducted by staff, Veterans, visitors, deliveries, and others (for example, construction workers) may generate mobile emissions.

Sensitive receptors for air quality impacts are those that are the most sensitive to pollution effects, such as the very young, elderly, or people with respiratory and other related illnesses. As the American Lake campus is a medical facility, the campus itself is the nearest sensitive receptor. Other nearby sensitive receptors within an approximately three-mile radius of the campus are Meriwether Elementary School, Beachwood Elementary School, and Tillicum Elementary School.

3.2.2 Environmental Consequences

3.2.2.1 Proposed Action

The Proposed Action would produce construction-related emissions over an approximately five to seven-year period. Construction activities would generate emissions from the use of heavy construction equipment like cranes and concrete trucks, and construction worker trips. The proposed construction activities have the potential to create dust, or particulate matter. Construction activities would limit particulate matter by following dust control BMPs such as ensuring all equipment has pollution prevention devices, limiting construction debris stockpiles, and limiting dust generating activities during high winds.

The air pollutant emission estimates for the construction phase are based primarily on estimated operational time and number of workdays to complete each project. While all five seismic projects could proceed simultaneously, it is unlikely they would all start and finish at the same time. This analysis assumes that each project has a construction period of approximately 150 working days.

In addition to the seismic upgrades, VA proposes renovations to improve campus infrastructure (see Section 2.2.1.6). Construction of these elements would occur throughout the construction period.

Table 3-1 presents the estimated emissions from the construction phase of all seismic upgrades and renovations within one calendar year. This represents the unlikely upper bound scenario as the activities would likely occur over five years. To identify potential impacts from emissions, Table 3-1 compares emission estimates with the same *de minimis* thresholds associated with Clean Air Act General Conformity Rule requirements, even though the project area is located within an attainment area. Appendix B provides estimated emissions calculations, factors, and assumptions.

Table 3-1. Estimated Construction Emissions

Year and Activity	Emissions (tons/year)					
	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	VOCs
Year 1 Heavy equipment construction	24.0	28.8	0.0	2.0	1.6	4.9
Year 1 On-road vehicles and worker trips	8.9	1.7	0.0	0.1	0.1	0.6
Total Year 1	32.9	30.5	0.0	2.1	1.7	5.4
<i>De minimis</i> threshold as an indicator of significance (tons per year)	100	100	100	100	100	50
Exceeds <i>de minimis</i> in any year?	No	No	No	No	No	No

Table 3-2 summarizes potential CO₂e emissions of the proposed construction activities. As shown in Table 3-2, in any given year, the average annual emissions would be below the GHG threshold identified by CEQ in draft guidance for evaluating the significance of GHG emissions. Given the nature and location of the project area, no impacts caused by climate change (for example, sea level rise) to the proposed project would occur.

Table 3-2. Estimated Construction CO₂e Emissions

Year and Activity	CO ₂ e (metric tons/year)
Total all construction	36,146
Annual average (over 5 years)	7,229
Draft CEQ GHG threshold (metric tons/year)	25,000
GHG exceeds threshold in any average year?	No

At the conclusion of construction there would be no permanent increase in operational emissions, as the Proposed Action would not establish any new permanent sources of emissions. Operational emissions would be similar to existing operational emissions. Therefore, the Proposed Action would result in a less than significant impact to air quality and climate change.

3.2.2.2 No Action Alternative

Under the No Action Alternative there would be no construction emissions and no change to existing operational emissions. The campus would continue to produce mobile and stationary source emissions from permitted stationary sources, vehicle, and other construction projects. While the campus would continue to generate operational emissions, they have no substantial contribution to air quality within the Puget Sound Intrastate Air Quality Control Region, as demonstrated by the current attainment status of Washington State with the NAAQS, and are in compliance with all requirements. Therefore, the No Action Alternative would result in a continued less than significant impact to air quality and climate change.

3.3 CULTURAL RESOURCES

Cultural resources include both archaeologically significant elements and historic elements. The Archaeological Resources Protection Act prohibits the excavation of archaeological resources on federal lands. The National Historic Preservation Act (NHPA) of 1966, as amended, provides for the preservation of historic properties. Section 106 of the NHPA requires that federal agencies consider the effects of their actions on such properties. Section 110 requires all federal agencies to assume responsibility for the preservation of historic properties under federal agency ownership or control.

Adverse impacts to historic properties can include physical damage or destruction, alterations inconsistent with standards, relocation, change in the property use or setting, introduction of incompatible uses or elements, or neglect and deterioration.

VA is initiating Section 106 consultation with the Washington State Historic Preservation Officer (SHPO), tribes, and the certified local government. VA anticipates executing a Programmatic Agreement with the Section 106 consulting parties to document an agreed process for evaluating and resolving potential adverse effects to historic properties from the Proposed Action. VA will update this section in the Final EA to summarize the outcome of Section 106 consultation.

The *Final Cultural and Archaeological Resources Survey Report, VA Puget Sound Health Care System American Lake Campus, WA* (VA CFM 2021b) provides detailed information and analysis prepared in support of this section's resource description, assessment, findings, and measures.

3.3.1 Affected Environment

Section 106 of the NHPA and its implementing regulations (36 CFR Part 800) require that federal agencies take into account the effects of their actions (referred to as "undertakings" under Section 106) on properties that may be eligible for or listed on the NRHP and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment.

3.3.1.1 Area of Potential Effect

An area of potential effect (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist (36 CFR Part 800.16[d]).

The National Park Service listed the American Lake campus on the NRHP on March 19, 2009, as a historic district (09000218) under Criteria A and C. Buildings 7, 8, 9, 81, and 111 are contributing properties to the historic district. The APE for this assessment consists of the entire VAPSHCS American Lake Division campus (VA's leased lands), to consider direct and indirect visual effects to the integrity of the historic district (Figure 3-1).



Figure 3-1. Area of Potential Effect (blue dotted line)

3.3.1.2 Cultural Background

Archaeological evidence indicates that humans arrived in the Pacific Northwest at the end of the Pleistocene glaciation around 14,000 years before present, when the modern landscape, climate, and vegetation reached conditions favorable for human occupation. The American Lake campus is located within the traditional territory of groups that were ancestors of the modern Puyallup Tribe, Mukleshoot Indian Tribe, and Nisqually Indian Tribe (Castile 1985; Smith 1940; Spier 1936; Suttles and Lane 1990, all as cited in VA CFM 2021b).

Explorers and traders first reached the Pacific Northwest by sea in the 1790s. In 1851 Captain Lafayette Balch founded the village of Port Steilacoom approximately 12 miles northwest of the campus. The village was the earliest Euro-American settlement in the region. In 1912, General Arthur Murray visited the region around American Lake to scout for optimal locations for an Army post and, in August 1916, the Secretary of War accepted 140 square miles on the condition of establishing a permanent military installation. A General Order declared naming the camp after Captain Merriwether Lewis. Camp Lewis was officially transferred to the U.S. government in November 1919.

In 1923, construction began on the 94th Veterans Hospital to provide care for World War I veterans. The hospital campus was established on the western side of American Lake on 377 acres of Fort Lewis land.

3.3.1.3 Natural Heritage Program

Vegetation within and beyond the confines of the historic district and developed portions of the American Lake campus possess significant heritage value and contributes to resource integrity and interpretation. Native forest and agricultural land with oak savannah remnants are particularly significant. Washington's Natural Heritage Program identifies Oregon White (Garry) Oak forest and savannah among the rarest and most threatened plant communities in the state, if not nationally. The campus owes much of its historic landscape character to the distinctive groves of Garry oak and grasslands that surround its periphery (Figure 3-2) (VA 2011b).

3.3.1.4 Previously Conducted Cultural Investigations and Recorded Archaeological Resources

Records in the Department of Archaeology and Historic Preservation Washington Information System for Architectural and Archaeological Records Data online database identified 27 cultural resources surveys conducted within one mile of the APE. The Washington Information System for Architectural and Archaeological Records Data records show 14 archaeological sites within the APE and 32 total archaeological resources within one mile of the APE.

Bowers and Chatters (2009) conducted an archaeological survey of the hospital campus consisting of pedestrian survey, subsurface testing, and shovel scrapes. The survey identified nine archaeological sites, four historical sites, four pre-contact sites, and one site of unknown age, as well as three isolated finds during their inventory (as cited in VA CFM 2021b). Based on a predictive model, the areas adjacent to the five buildings associated with the Proposed Action have a moderate to high potential for the presence of archaeological resources and the balance of the APE ranges from low to very high (VA 2011b).



Figure 3-2. NRHP District and Groves at the American Lake Campus

3.3.1.5 Previous Historic Property Inventories

In 2008, an architectural survey of the campus determined the campus was eligible for listing on the NRHP as a historic district (Department of the Interior 2009 as cited in VA CFM 2021b). The survey identified 48 contributing properties and 9 noncontributing properties. The contributing properties consist of 37 buildings, 8 minor support buildings, and 3 structures. Landscape features not included in the resource count but considered as contributing features include traffic circles at the end of Chase Drive and Curtis Drive, vegetation and plantings, and small-scale features (metal light standards and walkways).

The American Lake Veterans Hospital Preservation Plan provides guidance to mitigate activity that puts the property's historic eligibility at risk (VA 2011b). Prepared after the establishment of the historic district, the Plan includes recommendations regarding adaptive re-use and the introduction of new buildings into the historic district, as well as suggestions regarding strengthening the overall historic preservation program.

3.3.1.6 Previous Section 106 Consultations

VAPSHCS has completed Section 106 consultations with the Washington SHPO for previous undertakings on the campus. In June 2011, VAPSHCS and the SHPO signed an MOA to address the construction of Building 201 and demolition of nine buildings (four contributing buildings to the historic district and five non-contributing buildings). In December 2015, VAPSHCS and the SHPO signed Amendment 1 to the 2011 MOA to add the renovation of Building 18. In July 2021, VAPSHCS and the SHPO signed Amendment 2 to the 2011 MOA to extend the duration of the MOA to 2036 for VA to complete the terms of the MOA. The 2011 MOA and amendments do not address or cover any of the elements associated with the Proposed Action.

3.3.2 Environmental Consequences

3.3.2.1 Proposed Action

Ground-disturbing activities would occur from the seismic upgrades of the buildings, utility improvements, and transportation and circulation related renovations. Based on the previous investigations, the proposed activities within the APE have a moderate to high risk for inadvertently discovering archaeological resources.

VAPSHCS would draft a project-related inadvertent discovery plan for the project outlining procedures on what to do and who to contact if there is an inadvertent discovery as a result of the project-related minor earthwork activities. If an inadvertent discovery of cultural materials (for example, unusual amounts of shell, animal bone, bottle glass, ceramics, and structural/building remains) or human remains occurs during construction activities associated with the Proposed Action, VA would halt ground disturbances in the area of the find and a qualified professional archaeologist would assess the discovery. The archaeologist would determine whether the identified archaeological resources are eligible for listing on the NRHP, including the rationale for their conclusions. Such recommendations will cite and follow 36 CFR Part 60 and any relevant National Register Bulletin(s) (see <http://www.nps.gov/nr/publications/index.htm>).

If workers encounter human remains, VA would notify the local county coroner's office immediately upon discovery. If the coroner determines that the remains are not of recent history and potentially of Native American origin, the provisions of the Native American Graves Protection and Repatriation Act would apply (25 U.S.C. Chapter 32), and VA would notify the appropriate tribes.

Buildings 7, 8, 9, 81, and 111 are contributing structures to the historic district. While the majority of the seismic upgrades and renovations would occur within the buildings, VA proposes to replace the roofs on Buildings 7, 8, 9, and 111 and construct shotcrete walls on the exterior walls of Buildings 8 and 9. In addition, VA would widen the perimeter wall footings of Buildings 8

and 111. The proposed seismic upgrades and renovations would result in an adverse effect to these contributing structures.

The Proposed Action would not remove any trees or vegetation of heritage value. No impact to the historic landscape character of the campus would occur.

The proposed road and circulation renovations would improve existing developed transportation features. Aside from localized ground disturbance, no impacts would occur. The resulting roads and curbs would be consistent with existing conditions. VA would continue to manage the campus cultural resources in accordance with the 2011 MOA and its amendments and the American Lake Veterans Hospital Preservation Plan (VA 2011b).

VA is initiating consultation with the Washington SHPO, tribes, and the certified local government (Pierce County) in accordance with Section 106 of the NHPA. It is likely the outcome of consultation would be a Programmatic Agreement that would provide a consultation process to resolve the potential adverse effects to historic properties from the Proposed Action. The Programmatic Agreement would be consistent with the guidelines listed in the American Lake Preservation Plan (VA 2011b). VA will update the Final EA to reflect the outcome of Section 106 consultation. Therefore, with execution and implementation of a Programmatic Agreement, the Proposed Action would result in a less than significant adverse effect to cultural resources.

3.3.2.2 No Action Alternative

Under the No Action Alternative, VA would not implement seismic upgrades and renovations at the American Lake campus. There would be no change in existing conditions and VAPSHCS would continue to manage the properties in accordance with the 2011 MOA, its amendments, and the American Lake Veterans Hospital Preservation Plan. Therefore, the No Action Alternative would result in no impact to cultural resources.

3.4 GEOLOGY AND SOILS

Geology includes the geology, topography, and geologic hazards of a given area. The geology of an area includes surface and bedrock materials, its orientation and faulting, and geologic resources such as mineral deposits, petroleum reserves, and fossils. Topography is the elevation, slope, aspect, and surface features found within a given area. Potential geologic hazards include the seismicity (the relative frequency of earthquakes) and existence or potential for landslides, sinkholes, and liquefaction, as well as the potential for seismic events to pose a risk to people and property.

Soil refers to unconsolidated earthen materials overlaying bedrock or other parent material. Excavation, soil erosion, soil compaction, soil horizon removal, grading, and cutting and filling operations can result in a potential loss of soils and/or changes in geology.

3.4.1 Affected Environment

Glacial deposits, originating from the retreat of the Vashon Stade of the Fraser Glaciation approximately 13,500 years ago, dominate the geology of the American Lake campus and vicinity. Topography within the project area is nearly level with elevations ranging from 248 to 258 feet above sea level.

Damaging earthquakes occur in the Pacific Northwest region. For example, the 6.8 magnitude Nisqually earthquake of 2001 was centered less than 10 miles to the west and caused damage to buildings on the campus. The campus is not located along a major fault zone, but it is in a high seismic activity zone. The Cascadia Subduction Zone, a potential source of large earthquakes and tsunamis, parallels the Washington coastline. A recent liquefaction analysis for the campus indicated a low liquefaction potential in the native materials due to the dense to very dense nature of the deeper gravel (VA 2011a).

The campus is located in a very high seismic zone (refer to Figure 1-2), and VA has designated Buildings 7, 8, 9, and 111 as having a VA Seismic Deficiency Category 2 rating, meaning the buildings may not collapse but may be heavily damaged during a seismic event (VAPSHCS 2020a). In 2001, Building 81 suffered damage from the 6.8 magnitude Nisqually earthquake and VA considers it an extremely high-risk building (VA 2011a). A seismic event would present risks to both personnel and property, and would limit VA's ability to continue operations at the facility as a result of these deficiencies.

The campus sits on Urban Land-Spanaway complex soils and Everett-Spanaway complex soils. Both soil groups derive from glacial outwash and have a slight erosion hazard when exposed (VAPSHCS 2020b-e).

3.4.2 Environmental Consequences

3.4.2.1 Proposed Action

The Proposed Action would not affect the geology or alter the topography of the campus. Proposed seismic upgrades and renovations would result in minor and localized impacts to soils due to the limited amount of proposed excavation and in-ground work. Exposed soils would present a temporary potential for wind and water erosion. However, erosion and sediment control BMPs would be employed during construction to minimize this potential. There would be no long-term risk to soils and erosion because structures, asphalt/paving, or landscaping would cover all soils exposed during construction.

The proposed seismic upgrades would address current seismic deficiencies, comply with VA seismic design requirements and regulatory and policy requirements that define VA requirements and policy regarding seismic safety of buildings (that is, VA Handbook H-18-8, *Seismic Design Requirements* [VA 2019]; VA Directive 7512, *Seismic Safety of VA Buildings* [VA 2017]; and EO 13717, *Establishing a Federal Earthquake Risk Management Standard*), and decrease the risk of seismic-related impacts to people and property, resulting in a beneficial impact. Therefore, the Proposed Action would have a less than significant impact to geology, topography, and soils and a beneficial impact as a result of addressing seismic conditions.

3.4.2.2 No Action Alternative

Under the No Action Alternative, there would be no change in existing conditions. No impact to surface or bedrock materials, topography, or soils would occur. Notably, the seismic concerns would persist, continuing a potential risk to persons and property at the American Lake campus. Therefore, the No Action Alternative would have no impact to geology, topography, and soils and a continued significant adverse impact due to seismic conditions.

3.5 HYDROLOGY AND WATER QUALITY

Hydrology and water quality considers surface water and groundwater. The *Final Hydrology/Stormwater Report VA Puget Sound Health Care System – American Lake, WA* (VA CFM 2021c) provides detailed information on the discussion and analysis presented in the following assessment.

3.5.1 Affected Environment

3.5.1.1 Hydrology

The American Lake campus is located on the shores of American Lake, a natural kettle lake covering approximately 1,086 acres. No other permanent surface water features are located on the campus. All surface runoff either infiltrates or collects in a series of stormwater pipes that discharge directly into American Lake. American Lake discharges to Sequelitchew Lake which, in turn, discharges either to Sequelitchew Creek (which flows south and west through the JBLM to Puget Sound) or to a diversion canal (which crosses Sequelitchew Creek near Sequelitchew Lake (WA State Lake Protection Program 2013).

The majority of the soil found on the campus belongs to hydrologic soil group A. These soils exhibit a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

USEPA issued JBLM a National Pollutant Discharge Elimination System Permit (WAS-026638) for discharges of stormwater from the facility's small Municipal Separate Storm Sewer System (MS4). The permit, which also covers the American Lake campus, requires JBLM to implement a Stormwater Management Program to reduce the discharge of pollutants from the MS4 to the maximum extent practicable and specifies minimum control measures that must be accomplished through the Stormwater Management Program. The existing storm drain network at the campus is either infiltrated or conveyed through the existing MS4 system, which discharges into American Lake (VA CFM 2021c).

The Construction General Permit regulates storm water and non-stormwater discharges from construction sites. Coverage under the Construction General Permit is generally required for any clearing, grading, or excavating at construction sites that result in a disturbed soil area of one acre of land area or more, or projects that disturb less than one acre of land area if the project or activity is part of a larger common plan of development or sale.

3.5.1.2 Groundwater

Past soil borings conducted on the campus encountered groundwater at a depth of 15 to 18 feet below the ground surface. Groundwater flow direction is towards American Lake. The campus is located in a Pierce County, Washington mapped aquifer recharge area. Pierce County defines aquifer recharge areas as those areas where the potential for groundwater contamination is high.

3.5.1.3 Regional Water Quality

Section 303(d) of the 1972 Clean Water Act requires states, territories, and authorized tribes to develop lists of impaired waters. The Clean Water Act Section 303(d) impairments for American

Lake include dioxin, polychlorinated biphenyls, dieldrin, and bacteria. Existing sources of water quality degradation on the campus include runoff, heavy metals from vehicles and machinery, oils and fuels from vehicles and storage tanks, and herbicides or pesticides used in landscape maintenance activities.

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

Proposed seismic and renovation activities could potentially result in soil erosion and temporary impacts to surface water quality; however, VA would implement temporary BMPs to mitigate potential water quality impacts during construction. These BMPs may include the following:

- Erosion control
- Sediment control
- Drainage control
- Non-stormwater controls
- Materials management and waste management

The Proposed Action would not change the existing usage of the site nor include any new activities with the potential to generate additional pollutants that could potentially impact water quality. The campus would continue to implement the BMPs to protect water quality. In addition, VA would continue to abide by the stipulations of the JBLM MS4 permit.

The project would result in minimal disturbed soil area (less than one acre) and would thus be exempt from the requirements of the Construction General Permit. The proposed seismic upgrades and renovations would not create, replace, or remove any impervious surfaces or alter the drainage patterns of the campus. Nor would they result in any changes to the flow rate or volume of runoff or infiltration of water or pollutants to groundwater. VA would not have to implement any post-construction flow control or treatment BMPs. Therefore, the Proposed Action would result in a less than significant impact to hydrology and water quality.

3.5.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. The American Lake campus would continue to manage hydrology and water quality and follow the JBLM MS4 conditions. Therefore, the No Action Alternative would result in no impact to hydrology and water quality.

3.6 WILDLIFE AND HABITAT

The Endangered Species Act prohibits actions that kill, harm, or harass species of fish or wildlife that are in danger of extinction, or that endanger the designated critical habitat of these species. The Migratory Bird Treaty Act makes it illegal to “take” migratory birds or their eggs, feathers, or nests without a permit. The Bald and Golden Eagle Protection Act prohibits the taking, possession, or commerce of both bald and golden eagles.

3.6.1 Affected Environment

The following paragraphs describe the existing conditions within and in the vicinity of the “action area.” The action area is a specific term used to define the potential area of impact for wildlife and habitat from a proposed activity. For this project, the action area consists of the developed portions of the American Lake campus immediately surrounding Buildings 7, 8, 9, 81, and 111; developed areas immediately surrounding the proposed roadway, curb, and sidewalk improvements; and construction staging areas (which would be located in previously disturbed areas).

Aside from the built infrastructure, the American Lake campus contains a variety of maintained landscapes including grasses, flowers, bushes, and trees. There are no logs, standing snags, live trees with broken tops in the action area as VA regularly maintains the landscape. As shown in Photo 3-1, the trees at the American Lake campus adjacent to the action area are mostly large, mature, spaced single canopy trees.

The long-standing developed and landscaped areas within and adjacent to the action area offer marginal value for wildlife because of high levels of human disturbance and activity and limited vegetation development. Any potential habitat that exists on the campus is actively managed ornamental vegetation. However, common wildlife species, tolerant of human disturbance, do occur throughout the campus. The predominant wildlife and habitat consist mainly of small fauna living within or around the area’s flora, or those visiting on their migratory paths, most notably several species of birds.

The U.S. Fish and Wildlife Service (USFWS) developed the Information for Planning and Consultation (IPaC) database to assist as a project planning tool to streamline the threatened and endangered species review process. A query of the IPaC database for the action area revealed four threatened bird species, one threatened amphibian, one threatened fish, and one endangered and one threatened plant species for which the known or expected range includes the action area. Table 3-3 summarizes the listed species and their potential presence in the action area.

Table 3-3. Federally Listed Species Potentially Present within the Action Area

Species	Status	Habitat	Potential Habitat in Action Area?
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	Threatened	Majority of their lives on the ocean but come inland to nest. Generally nest in old-growth forests, characterized by large trees, multiple canopy layers, and moderate to high canopy closure.	No
Northern spotted owl (<i>Strix occidentalis caurina</i>)	Threatened	Dense canopy closure of mature and old-growth trees, abundant logs, standing snags, and live trees with broken tops.	No
Streaked horned lark (<i>Eremophila alpestris strigata</i>)	Threatened	Inhabit open ground with short grass or scattered bushes. Also, found on prairies, sandbars, and grassy ocean dunes.	No
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Threatened	Coastal scrub, second-growth forests and woodlands, hedgerows, forest edges, and in smaller riparian patches. Winters in woody lowland vegetation near fresh water.	No
Oregon spotted frog (<i>Rana pretiosa</i>)	Threatened	Lakes, ponds, wetlands, and riverine sloughs. Almost always found in or near a perennial body of water that includes zones of shallow water and abundant emergent or floating aquatic plants.	No
Bull trout (<i>Salvelinus confluentus</i>)	Threatened	Stable stream channels, clean spawning and rearing gravel, complex and diverse cover, and unblocked migratory corridor.	No
Golden paintbrush (<i>Castilleja levisecta</i>)	Threatened	Open grasslands on glacial outwash prairies in the Puget Trough lowlands of Washington and British Columbia and on alluvial soils in the Willamette Valley, Oregon. Also on uplands prairie in Washington on mounded prairies known as "mima mounds."	No
Marsh sandwort (<i>Arenaria paludicola</i>)	Endangered	Marshes, swamps, and areas that are wet year-round. Also reports of it growing up through dense mats of reeds, cattails, rushes, and bulrushes.	No

While the IPaC query identified the eight species listed in Table 3-3 as having known or potential range that includes the action area, no potential habitat for these species is present within the project area. Furthermore, there is no designated critical habitat for any of the species listed in Table 3-3 that includes the action area.

The IPaC query also identified seven migratory bird species that visit the area during one or more parts of the year (USFWS 2021a):

- Bald eagle (*Haliaeetus leucocephalus*)
- Lesser yellowlegs (*Tringa flavipes*)
- Olive-sided flycatcher (*Contopus cooperi*)
- Rufous hummingbird (*selasphorus rufus*)
- Black turnstone (*Arenaria melanocephala*)
- Evening grosbeak (*Coccothraustes vespertinus*)
- Marbled godwit (*Limosa fedoa*)

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

Proposed seismic upgrade and renovation activities may result in the direct loss of common wildlife species such as ground squirrels within the action area. However, the numbers of individuals potentially lost would be inconsequential to the populations present at the American Lake campus. At the conclusion of the construction phase in each area, common species would have the opportunity to re-establish in that area. The Proposed Action would not remove any trees.

Indirect, temporary, adverse impacts to common wildlife species may occur within the action area due to an increase in human activity and dust, noise, or other construction-related disturbances. These temporary disturbances could mask bird vocalizations, invoke stress in birds, and cause common bird and wildlife species to avoid the work area during construction. The noise would be temporary and intermittent and not likely to impair wildlife species from foraging, nesting, or resting.

Due to the lack of potential habitat within the action area, the Proposed Action would not affect federally listed species or migratory birds. The Proposed Action would not result in a change in operations nor introduce any new activities or land uses that might have the potential to impact wildlife or habitat. Therefore, the Proposed Action would result in a less than significant impact to wildlife and habitat.

3.6.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions, which would continue to provide marginal habitat for wildlife. Therefore, the No Action Alternative would result in no impact to wildlife and habitat.

3.7 NOISE AND VIBRATION

Noise is generally defined as an unwanted sound. Sound is most commonly measured in decibels (dB). The Noise Pollution and Abatement Act of 1972 initiated a federal program of regulating noise pollution with the intent of protecting human health and minimizing annoyance of noise to the general public. Ecology is the regulatory authority for environmental noise in Washington State.

The *Final Baseline and Desktop Noise Analysis Report, VA Puget Sound Health Care System – American Lake, WA* (VA CFM 2021d) provides detailed information on the discussion and analysis presented in the following assessment.

3.7.1 Affected Environment

Noise is an unwanted or annoying sound that interferes with or disrupts normal human activities. Although continuous and extended exposure to high noise levels (for example, through occupational exposure) can cause hearing loss, the principal human response to noise is annoyance. The response of different individuals to similar noise events is diverse. The type of noise, perceived importance of the noise, its appropriateness in the setting, time of day, type of activity during which the noise occurs, and sensitivity of the individual influence the response to the noise.

Sound characteristics include the sound power, which relates to the source of the sound and sound pressure, which is the sound received at a receptor. Sound power is the amount of energy of sound at the source. Sound pressure is the pressure vibrations caused by the source but perceived at the ear.

The dB is the common unit to measure levels of noise. However, several factors affect how the human ear perceives sound: the actual level of noise, frequency, period of exposure, and fluctuations in noise levels during exposure. Daytime noise levels of 40 dB are generally perceived as quiet, 60 dB as moderate, and greater than 70 dB as loud.

Because the human ear cannot equally perceive all pitches or frequencies, scientists adjust noise measurements metrics to compensate for the human lack of sensitivity to low- and high-pitched sounds. This commonly used adjusted unit is known as the A-weighted decibel, or dBA. The A-weighted metric de-emphasizes very low and very high-pitched sound generated by motor vehicle traffic and construction equipment.

While the campus is located near both McCord Airfield and Fort Lewis training areas, the campus is not located within aircraft or ordnance noise impact zones identified by JBLM (South Sound Military and Communities Partnership 2015). Noise from these military sources has been ongoing for decades and may occasionally be disruptive.

In addition to the many health care services the campus provides to Veterans, of note for this report is the care provided to post-traumatic stress disorder (PTSD) patients. Given that PTSD patients are very sensitive to loud or impulsive noises, VAPSHCS actively works to minimize loud and/or sharp noises to the benefit of PTSD and all patients.

During two site visits (October 2020 and June 2021), contractors observed that the overall campus noise level was moderate. The major sources of noise included vehicles, aircraft, fans, ordnance, and notably, construction activity associated with the installation of a campus-wide fiberoptic cable. Localized construction noise was especially loud due to the use of a vacuum excavator. Contractors also noted noise and vibration due to ordnance detonations associated with JBLM. The surrounding trees also help to dampen noise levels from outside sources.

Table 3-4 presents the noise levels associated with the operation of representative construction equipment at a distance of 50 feet. Maximum noise levels produced by common construction equipment, including trucks, cranes, and earth-moving equipment (excavators) are 74 to 90 dB at 50 feet.

Table 3-4. Estimated Construction Equipment Noise Levels

Equipment Type	Estimated Noise Level (dB) at 50 feet
Air compressor	81
Backhoe	80
Compactor	82
Concrete saw	90
Crane, mobile	83
Bulldozer	85
Generator	81
Grader	85
Jack hammer	88
Loader	85
Scraper	89
Truck (heavy)	88
Welding torch	74

Source: Federal Highway Administration 2006.

Construction noise at temporary construction sites is exempt from Washington Administrative Code (WAC) 173-60 (WAC 2019).

Sensitive Noise Receptors

As a VA hospital, the campus has several sensitive receptors. The sensitive areas are associated with the hospital (Building 81), the community living center (Building 200), and the domiciliary (Building 4) (Figure 3-3). There are no nearby off-campus sensitive noise receptors.

VA requires construction contractors to maintain lower noise values than those presented in Table 3-4 in accordance with Part 1(F) of the VA Temporary Environmental Controls, Section 01 57 19 (VA 2014).

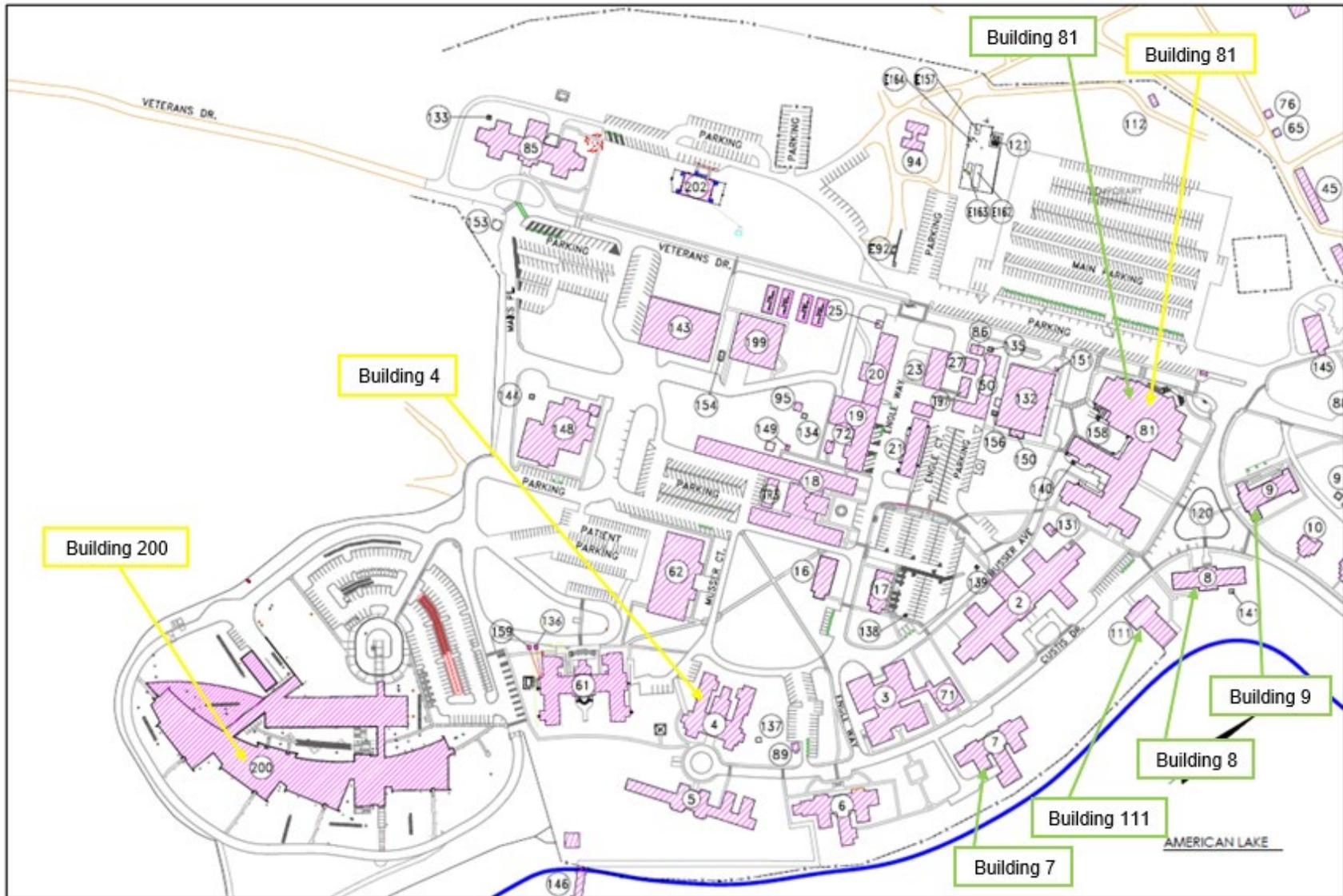


Figure 3-3. Location of Sensitive Noise Receptors (Buildings 200, 4, and 81 [in yellow]) and Proposed Seismic Upgrades (in green)

3.7.2 Environmental Consequences

3.7.2.1 Proposed Action

The proposed seismic upgrades and renovations would generate short-term and localized noise levels typical of construction activities. The main sources of construction-related noise would include:

- medium and heavy-duty trucks bringing equipment and supplies to the construction site,
- miscellaneous light earth moving equipment such as trenchers, tractors, and front-end loaders,
- heavy material moving equipment such as cranes and forklifts, and
- a variety of light tools and generators.

Secondary noise sources would include stationary equipment, including generators and compressors.

Noise levels would be highest outside the buildings in the vicinity of the construction. Patients and staff in nearby buildings such as Building 81 would hear more moderate noise levels due to noise suppression from walls and windows. Workers would reduce construction and demolition noise by implementing routine noise-reducing measures such as using quieter equipment, utilizing demolition/construction practices that minimize noise, turning off equipment not in use, and requiring mufflers on construction machinery. VA would also restrict work hours to normal working hours to avoid undue disruption. All construction-related noise issues would be short-term and would cease at completion.

The noise modeling assumed a full suite of construction equipment operating at the same time at all buildings. As the workers may distribute their equipment across all buildings, the noise modeling assumes all equipment is located at the center of the combined construction site. For modeling purposes, the center of construction would be at the north edge of Building 111.

The modeling also assumed the equipment was on the side of the buildings facing the exposed Buildings 2 and 81. In reality, some of the work would be on the lake side of Buildings 7, 8, 9, or 111, thus shielding the direct transmission of noise to Building 81.

This analysis estimated noise levels (as an equivalent continuous noise level [L_{eq}]²) from the center of construction at distances of 100, 250, 500, 1,000, 1,500, and 2,000 feet. This analysis used an attenuation factor of 15 db to the distances of 500 feet and greater because trees and buildings can reduce sound levels. Conversely, the 100- and 250-foot distances do not get the attenuation factor because there are not enough trees and buildings to appreciably lessen the noise. Furthermore, receptors are typically indoors, and exterior walls of buildings reduce noise levels as well. Table 3-5 provides the distances, estimated noise levels, and a brief description of notable buildings at various distances.

² L_{eq} continuous equivalent continuous noise level is defined as the sound level in decibels having the same total sound energy as the fluctuating level measured

Table 3-5. Construction Noise at Various Distances from Construction Area

Distance (feet)	Noise Level dBA L _{eq} ¹	Notes ²
100	84.7	No shielding or attenuation, extends across Custis Blvd.
250	76.0	No shielding or attenuation. 250 feet extends to middle of Buildings 2 and 81.
500	55.7	Includes 15 dBA reduction due to shielding from buildings and trees. Extends to Buildings 71 and 131.
1,000	49.7	Includes 15 dBA reduction due to shielding from buildings and trees. Extends to intersect Buildings 4, 5, 62, and 199.
1,500	46.2	Includes 15 dBA reduction due to shielding from buildings and trees. Extends to Buildings 85 and 200 and encompasses all other buildings on-campus.
2,000	43.7	Includes 15 dBA reduction due to shielding from buildings and trees. Extends to encompass about 80 percent of Building 200 and all other buildings on-campus.

Note: ¹ L_{eq} = equivalent continuous sound level.

Noise levels in Table 3-5 assume upper bound scenarios with all of the equipment used in the activity (as presented in Table 3-4) placed at the center of the activity. In reality, there would be some sequencing to the project to allow the construction contractor some efficiency of equipment usage. For instance, workers often use forklifts (modeled as tractors) sequentially from activity area to activity area rather than simultaneously to avoid having multiple forklifts on one job. In addition, the presented modeled noise levels in Table 3-5 do not reflect the implementing controls required by Part 1(F) of the VA Temporary Environmental Controls, Section 01 57 19 (VA 2014). The controls would reduce noise levels by 5 to 10 dBA from those levels presented in Table 3-5

Ultimately, actual noise levels would depend upon the location, activity, type of equipment used, number of pieces of equipment, frequency and duration of equipment operation, proximity of noise-generating equipment to each other, location within the construction/demolition area (potential echo effects that could enhance noise issues), and the distance to the person perceiving the sound. Given that it is unlikely this modeled upper bound scenario would occur, actual noise levels would be lower than estimated.

The most sensitive receptors would be the locations on campus that are continuously inhabited: Building 4 at 1,000 feet, Building 81 at 250 feet, and Building 200 at 1,500 to 2,000 feet (Figure 3-3). Estimated noise levels at these locations would be 49.7 dBA Leq, 76.0 dBA Leq, and 46.2 dBA Leq, respectively. It is likely that Veterans inside of Building 81 would hear the construction noise, especially given the proximity. Overall, with the shielding afforded by windows and walls, noise levels at these facilities would be low and construction noise would be almost undistinguishable relative to existing conditions. In addition, once VA completes the new Building 201, patients and staff would relocate to the new Building 201, thus reducing the potential impact as they would be farther away from Building 8 and out of Building 81.

As shown in Figure 2-2, the anticipated construction timeline depicts the seismic upgrades of Buildings 7, 9, and 111 overlapping with the separate project for the construction of the new Building 201. The new Building 201 project will generate more noise as compared to the proposed seismic upgrades and likely would dominate the construction noise environment during the overlap period. For example, the demolition of Building 132 and Building 50 will create noise levels of up to 110 dB based on average noise levels from construction sites (VA 2011b).

Some Veterans at the campus suffer from PTSD and may be sensitive to noise. Sudden loud noises, especially sounds associated with aircraft and munitions, can adversely impact these individuals. Construction noises could have a temporary adverse impact on these individuals. When the new Building 201 is complete, it will have insulated and laminated glass that will dampen sound inside the building compared to noise levels patients at Building 81 currently experience. Thus, later phases of the seismic program and renovation activities would result in a smaller acoustic impact to Veterans currently receiving care in Building 81, after VA moves their care to Building 201.

Overall, construction noise would be noticeable to persons in the vicinity of the construction activity. However, the noise impact would not result in a substantial impact overall, or to sensitive noise receptors.

From a vibration standpoint, a jackhammer would be the most likely to create vibrational impacts. At 75 feet, the vibration level, measured in peak particle velocity, would be 0.01 inches per second. The threshold of perceptibility is 0.08-0.019 inches per section. Even at close distances, vibration levels would be imperceptible (Caltrans 2013).

After construction, there would be no change in the operational noise or vibration environment as the project would not create any new sources of noise that would contribute to the overall noise environment. Aircraft, ordnance, traffic, operations, and temporary construction would continue to dominate an overall quiet noise setting of the campus. Therefore, the Proposed Action would result in a less than significant impact to noise and vibration.

3.7.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to the existing noise environment. Construction, operations, vehicles, military operations at JBLM, and occasional aircraft would continue to dominate the noise environment. Therefore, the No Action Alternative would result in no impact to noise and vibration.

3.8 LAND USE

Land use is the current and planned use of a subject property as determined by governing authorities.

3.8.1 Affected Environment

The American Lake campus is located within the boundaries of JBLM, which is zoned as Urban Military Land by Pierce County (Pierce County 2021). The City of Lakewood is adjacent to the campus to the north. As mentioned in Section 2.2.1, VA will soon start the construction of the new hospital building. Figure 3-4 depicts the future location of Building 201.

3.8.2 Environmental Consequences

3.8.2.1 Proposed Action

The Proposed Action would not alter the type of land use at the campus because VA would continue to provide the same services in the same area. There would be no change in activity or land use. As a result, the Proposed Action would not introduce a new land use that would be incompatible with existing development or zoning at the campus or with adjacent properties. In addition, the Proposed Action would be compatible with the new hospital Building 201.

Although the campus is a federal facility and thus not required to comply with local land use policies, the use proposed at the project area would nonetheless continue to be consistent with uses allowed in Pierce County. Therefore, the Proposed Action would result in no impact to land use.

3.8.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. Existing land use would remain the same. Therefore, the No Action Alternative would result in no impact to land use.

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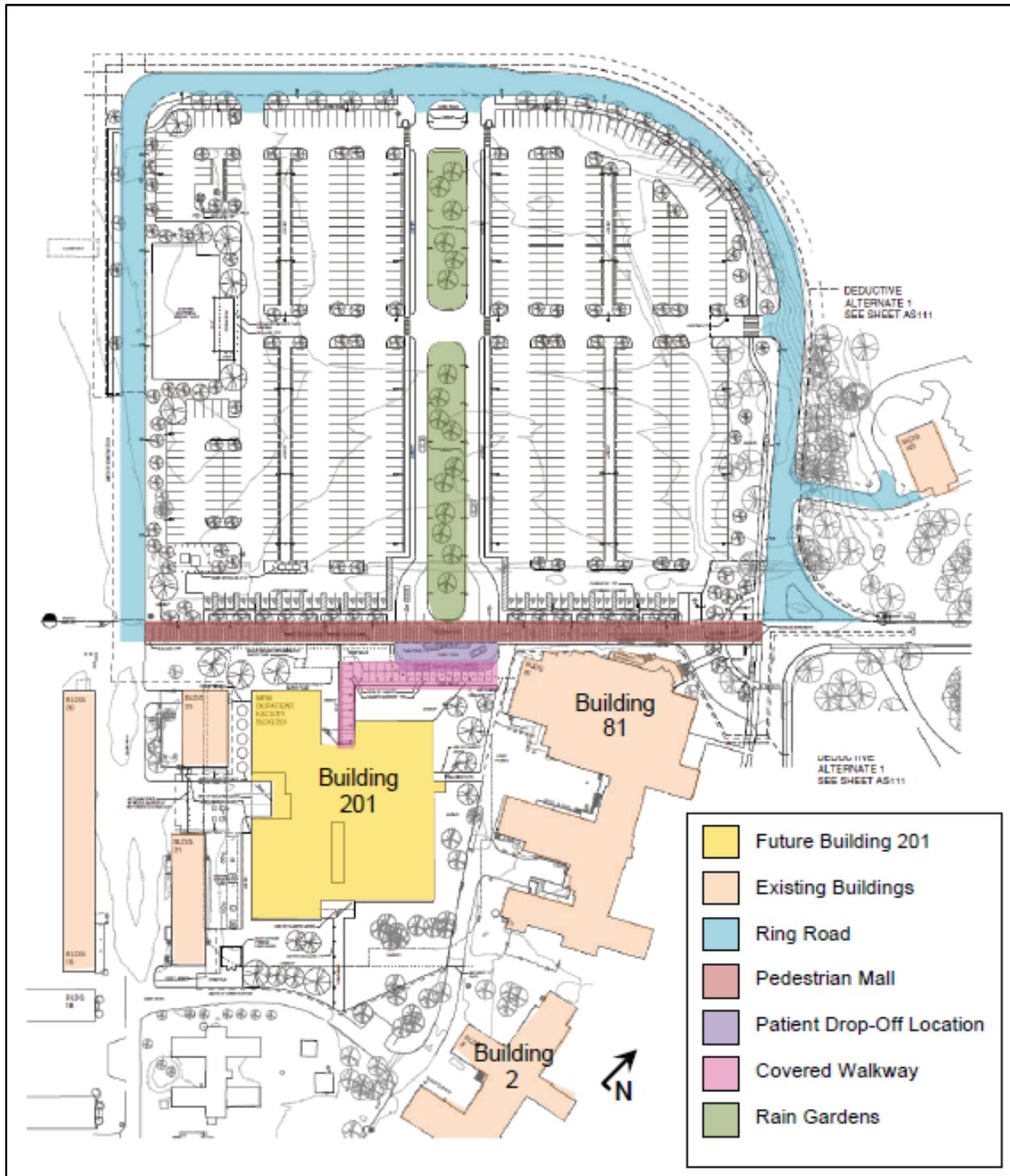


Figure 3-4. Future Location of Building 201 (separate project from the Proposed Action)

3.9 FLOODPLAINS, WETLANDS, AND COASTAL ZONE MANAGEMENT

EO 11988, *Floodplain Management* (42 CFR 26971), requires federal agencies to evaluate the potential effects of actions those agencies may take in floodplains to avoid adversely impacting floodplains wherever possible, and to ensure that their planning programs and budget requests reflect consideration of flood hazards and floodplain management. EO 11990, *Protection of Wetlands* requires federal agencies to minimize impacts of their actions to wetlands. Federal agencies must show consistency with state programs to implement the Coastal Zone Management Act (CZMA).

3.9.1 Affected Environment

Although it borders American Lake and is in close proximity to Park Marsh, Federal Emergency Management Agency (FEMA 2021) and Ecology (State of Washington 2021a) data and information show that the American Lake campus is not located in a floodplain, nor in a flood hazard area. FEMA has determined that the site lies in a “Zone X” flood area, an area of minimal flood hazard (FEMA 2021).

National Wetland Inventory map data (USFWS 2021b) indicates that Park Marsh in the vicinity of the project. Figure 3-5 uses National Wetland Inventory-provided data depicting the location of Park Marsh (a 11.29-acre Freshwater Forested/Shrub Wetland), the 1,086-acre American Lake, and riverine wetlands at the north and southwest of Park Marsh.

The project site is located in Pierce County, a state coastal county, and hence subject to the CZMA (National Oceanic and Atmospheric Administration 1977) under the Washington State Coastal Management Program as approved by the National Oceanic and Atmospheric Administration in 1976 (State of Washington 2021b). The Washington coastal zone includes the state’s 15 coastal counties that front saltwater (National Oceanic and Atmospheric Administration 2021). The CZMA requires federal activities to be consistent with the enforceable policies of approved state coastal zone management programs. Washington State has a federally approved Coastal Zone Management Program administered by Ecology (State of Washington 2021c).

Washington’s coastal program uses the Shoreline Management Act (State of Washington 2021d) as the principal means of regulating land and water uses throughout the coastal zone. Ecology serves as the lead coastal management agency, but the state does not have a stand-alone coastal management program. Instead, the state fulfills the CZMA requirements through compliance with four state laws and their implementing regulations—State Shoreline Management Act, State Water Pollution Control Act, State Clean Air Act, and State Ocean Resources Management Act—as well as the state’s Marine Spatial Plan. This allows the state to manage coastal resources in a more locally relevant and comprehensive way that fits its state priorities and enforceable policies (State of Washington 2021c).

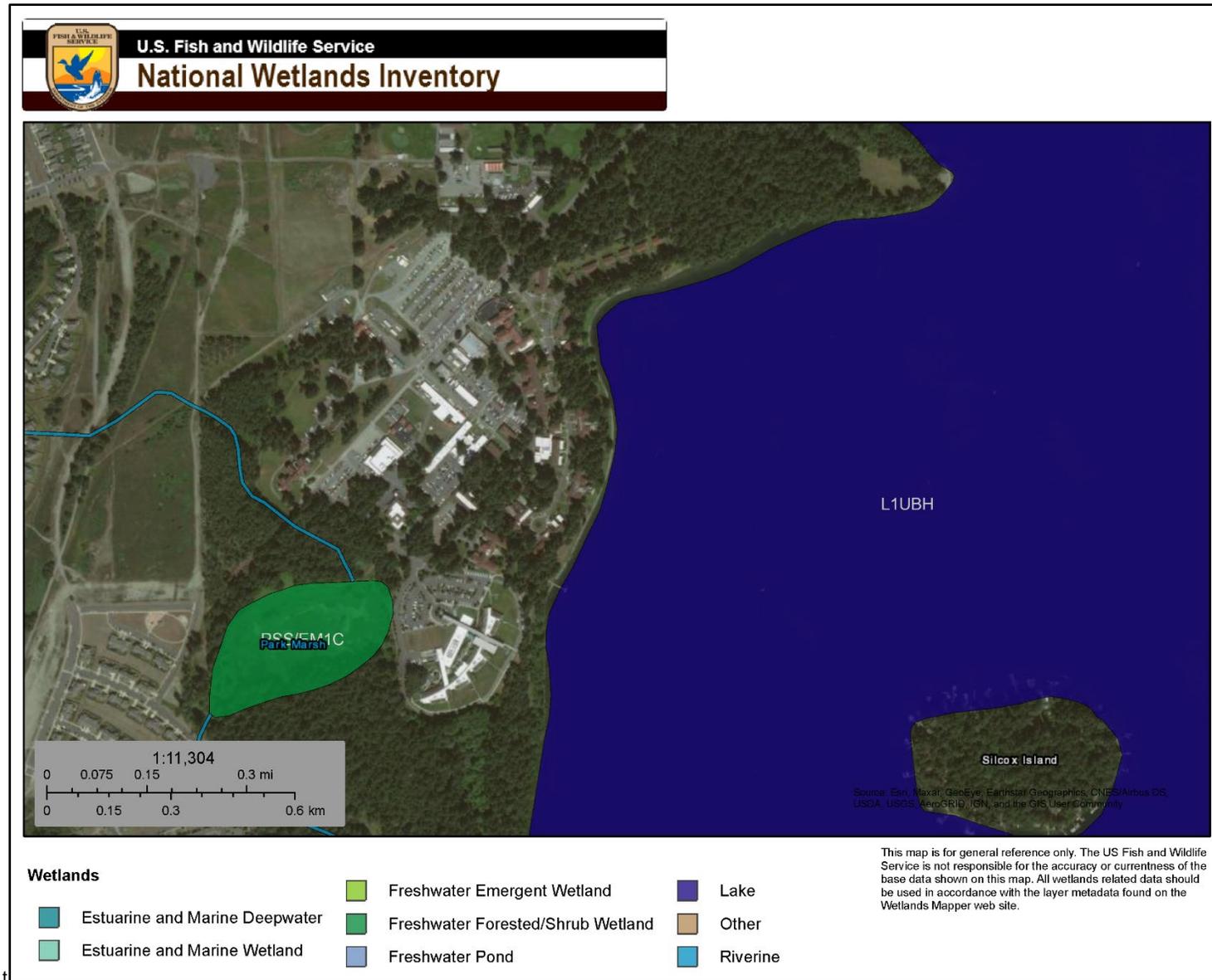


Figure 3-5. Wetlands and Waters at the American Lake Campus

3.9.2 Environmental Consequences

3.9.2.1 Proposed Action

As the project area is not located within or include any floodplains or a wetlands, there would be no effect to these areas or their associated resources. However, because the campus is located within the federally approved Washington State Coastal Management Program, VA reviewed for reasonably foreseeable effects on any coastal use (land or water) or natural resources of the coastal zone, consistent with the enforceable policies of that program.

The Proposed Action would upgrade existing buildings and infrastructure and not create any new structures (development) or activities that would be inconsistent with the Washington State Coastal Management Program. With the implementation of previously identified BMPs, workers would avoid and minimize the potential for construction activities to generate runoff or pollutants that could reach nearby wetlands.

VA has reviewed the Proposed Action for consistency with the State of Washington's enforceable policies and NOAA's guidance, and determined that the Proposed Action would not be a development project and would have no reasonably foreseeable direct or indirect effects on Washington's coastal uses or resources. Therefore, the Proposed Action would result in no impact to floodplains and less than significant impact to wetlands and coastal zone resources.

3.9.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. Because there are no floodplains in the affected environment, and no activities that would impact wetlands or coastal zone resources, no effects would occur. Therefore, the No Action Alternative would result in no impact to floodplains, wetlands, or coastal zone resources.

3.10 SOCIOECONOMICS

Socioeconomics refers to the social and economic conditions in the surrounding area.

3.10.1 Affected Environment

The American Lake campus employs hundreds of people and is responsible for generating economic benefits to the region by way of employment, Veteran visits, and goods and services. The campus procures goods and services from local, regional, and in some cases, worldwide markets. In addition to economic infusions (spending) associated with the campus, employees support local and regional economic revenue. As of 2019 the population of the City of Lakewood and JBLM was approximately 112,659 (U.S. Census Bureau 2019).

3.10.2 Environmental Consequences

3.10.2.1 Proposed Action

The Proposed Action would result in a positive impact on the local economy. Proposed construction activities would attract skilled and non-skilled labor construction workers. The construction labor pool would likely be mostly from regional populations.

During the sustained construction period, there would be a beneficial economic benefit to the local area from the incidental spending by workers on food, lodging, and equipment, as well as indirect benefits from an increase in material and equipment deliveries.

The Proposed Action would not result in an appreciable increase of employees or patients at the campus. There would be a negligible impact to housing, school, economics, or population. Therefore, the Proposed Action would result in a beneficial impact to socioeconomics.

3.10.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. Existing population, employment, and economic conditions would continue. Therefore, the No Action Alternative would result in no impact to socioeconomics.

3.11 COMMUNITY SERVICES

Community services are services such as police, fire, ambulance, and emergency services provided by VA or surrounding communities.

3.11.1 Affected Environment

JBLM Directorate of Emergency Services provides fire protection to the American Lake campus. The JBLM Directorate of Emergency Services also provides for the welfare and safety of veterans, staff, and visitors at the campus via military police. Veterans Health Administration (VHA) Directive 7715 (establishes policy for maintaining a safe and healthy worksite for staff, patients, volunteers, visitors, contractors, and the public during construction and renovation-related activities (VHA 2017).

The campus provides standard clinical services. The multi-care facility includes ambulatory surgical services, a 76-bed nursing home, a 60-bed homeless domiciliary, and primary medical and mental health outpatient services. VAPSHCS provides services to over 112,000 veterans living in 14 counties around the Puget Sound region (VAPSHCS 2020b).

Title 38 – U.S.C., section 8105 required the VA Secretary to assure that each medical facility constructed or altered shall be of construction that is resistant to fire, earthquake, and other natural disasters. This initiated the creation of the Secretary's Advisory Committee on Structural Safety of VA Facilities, which formally approved in 1975 the original VA Seismic Design document, H-08-8, *Earthquake Resistant Design Requirements for VA Facilities*. The committee developed the requirements (far in advance of National Codes) with the concept that all VA essential facilities must remain in operation after an earthquake (VA 2019).

3.11.2 Environmental Consequences

3.11.2.1 Proposed Action

Under the Proposed Action, there would be no change in community services, nor increase in force protection or security services. Because no additional permanent employment would occur, there would be no increase in school enrollment.

The Proposed Action would abide by VHA Directive 7715 to maintain a healthy worksite during construction. Once upgraded, the buildings would be more resilient during a seismic event, thus increasing the safety of Veterans, staff, and visitors, and reducing potential emergency response following a seismic event. The seismic upgrades would ensure that the campus could continue to serve patients after a seismic event.

Furthermore, as described in Section 2.2.1, VA would phase construction activities to ensure continuity of services to Veterans. Proposed renovations and in particular ADA compliance actions would improve site conditions for Veterans, staff, and visitors.

The Proposed Action would facilitate VA's ability to sustain the provision of affordable health care services to Veterans living in the region, in accordance with seismic-related directives and ADA requirements, resulting in a positive impact to Veterans. Therefore, the Proposed Action would result in a beneficial impact to community services.

3.11.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. The existing seismic-related risk to persons and property at the campus would continue and VA would not comply with existing VA directives and standards. Existing seismic-related risks to the community would persist, perpetuating the potential for stress on community emergency responders in the event of a seismic event. Existing ADA non-compliance conditions would persist. Therefore, the No Action Alternative would result in a significant adverse impact to community services.

3.12 SOLID WASTE AND HAZARDOUS MATERIALS

Hazardous materials include, but are not limited to, hazardous and toxic substances and waste, and any materials that pose a potential hazard to human health and the environment due to their quantity, concentration, or physical and chemical properties.

Hazardous wastes are characterized by their ignitability, corrosivity, reactivity, and toxicity. Hazardous materials and wastes, if not controlled, may either (1) cause or significantly contribute to an increase in mortality, serious irreversible illness, or incapacitating reversible illness; or (2) pose a substantial threat to human health or the environment.

The *Final Environmental Condition of Property Report, VA Puget Sound Health Care System – American Lake, WA* (VA CFM 2021e) provides detailed information on the discussion and analysis presented in the following assessment.

3.12.1 Affected Environment

The campus uses a variety of hazardous materials and generates solid and hazardous wastes. Most of the hazardous materials typically consist of chemical reagents in laboratories, chemical pharmaceuticals, and radiopharmaceuticals used in diagnostics. The campus uses and stores hazardous materials in small quantities. Hazardous wastes consist of chemical wastes, low-level radioactive wastes, and medical wastes. The campus manages these materials and wastes in accordance with all applicable regulations.

Operations at the campus involving hazardous materials include diesel fuel, lubricants, oils, and related products. Maintenance (janitorial and landscaping) activities include the use of cleaners, solvents, degreasers, paints, and pesticides.

The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation for asbestos regulates asbestos fiber emissions and asbestos waste disposal practices. It requires the identification of existing asbestos-containing material (ACM) according to friability prior to demolition or renovation activity. Friable material is a material containing more than 1% asbestos that, when dry, hand pressure can crumble, pulverize, or reduced to powder. WAC 173-400-075 adopts the federal NESHAP rule by reference (VA CFM 2021e).

In the State of Washington, authority to administer NESHAP requirements is delegated to regional clean air agencies. In Pierce County, the Puget Sound Clean Air Agency administers the NESHAP requirements. Project owners must notify the agency at least 10 working days prior to demolition of any structure with a projected roof area greater than 120 SF, whether or not any asbestos is present. Renovation projects do not require notification unless the project would disturb friable asbestos-containing materials. The owner or operator must also provide Washington State Department of Occupational Safety and Health (DOSH) with written notification at least 10 working days prior to commencing asbestos removal projects involving at least 10 linear feet or 48 SF of regulated ACM. Regulated ACM must be removed by a State of Washington-certified asbestos abatement contractor (VA CFM 2021e).

The Occupational Safety and Health Administration (OSHA) and DOSH worker protection regulations have not defined a minimum concentration for regulating lead but have clarified that lead at any detectable concentration is regulated (29 CFR 1926.62; WAC 296-62-176). The regulations apply to all construction work and to general industry where an employee may be occupationally exposed to lead. As defined by OSHA, any detectable concentration of lead creates the requirement for implementing worker protection, and in some cases, environmental protection. The current OSHA standard (29 CFR 1926.62) and DOSH standard (WAC 296-155) require that when the permissible exposure limit is exceeded, the hierarchy of controls requires employers to institute feasible engineering and work practice controls as the primary means to reduce and maintain employee exposures to levels at or below the permissible exposure limit (VA CFM 2021e).

Although regulations now prohibit the use of ACM and lead based paint (LBP) in buildings, ACM and LBP may still be present in older buildings. An ACM and LBP survey conducted in 2020 (VA CFM 2021e) determined that ACM and LBP are in all five buildings associated with the proposed seismic upgrades (Buildings 7, 8, 9, 81, and 111).

The American Lake campus requires contractors and staff to handle and dispose of solid wastes in such a manner that would prevent contamination of the environment, including

disposal of waste in compliance with federal, state, and local laws. The campus follows a Spill Prevention, Control, and Countermeasure Plan (VAPSHCS 2019) to prevent discharges of oil into receiving waters and the environment.

3.12.2 Environmental Consequences

3.12.2.1 Proposed Action

Based on recent surveys, ACM and LBP are present in all five buildings (VA CFM 2021e). Therefore, the construction contractor(s) would treat and abate all locations known to contain ACM and/or LBP in accordance with applicable USEPA, OSHA, and DOSH regulations and VA requirements. The construction contractor(s) would dispose of ACM and LBP at a permitted solid waste landfill that meets the standards of 40 CFR 258.

Through the construction contractor, VA would notify the Puget Sound Clean Air Agency and also provide DOSH with written notification at least 10 working days prior to commencing asbestos removal. A State of Washington-certified asbestos abatement contractor would remove ACM. Trained workers would handle all lead containing components in accordance with OSHA (29 CFR 1926.62) and DOSH (WAC 296-155) regulations.

The Proposed Action would require the use of hazardous materials (for example, fuels, oils, lubricants, solvents), which would be properly stored, handled, used, and disposed. Construction-related wastes would be subject to federal and state disposal requirements and local laws. Compliance with these requirements is mandatory and would minimize adverse environmental effects. The construction contractor(s) would manage hazardous materials and solid waste in accordance with all applicable regulations.

Workers would sort demolition debris into recyclable materials and waste materials, then store or stockpile them in a secured and controlled area before loading them into dumpsters or on trucks for off-site disposal at an appropriate facility.

Workers would handle any hazardous materials encountered in accordance with all applicable regulations. Though not anticipated based on the findings of the *Environmental Condition of Property Report* (VA CFM 2021e), if workers discover any soil contamination, the construction contractor(s) and VA would assess and treat/dispose of the contamination in accordance with all applicable regulations. The campus would continue to follow its existing Spill Prevention, Control, and Countermeasure Plan (VAPSHCS 2019) to minimize the potential for discharges of oil into receiving waters and the environment.

The campus would continue to manage its use of hazardous materials and wastes, in both patient care activities and maintenance activities, in accordance with all applicable state and federal regulations. There would be no change in the amount of medical waste generated, managed, and disposed of as there would be no change in operations or services. ACM and LBP would no longer be present in the renovated building systems, increasing the safety for Veterans, staff, and visitors. Therefore, the Proposed Action would result in a less than significant impact to solid waste and hazardous materials.

3.12.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. VA would continue to manage solid wastes and hazardous materials in accordance with all applicable regulations. Therefore, the No Action Alternative would result in no impact to solid waste and hazardous materials.

3.13 TRANSPORTATION AND PARKING

Transportation and parking refers to the movement and parking of people, goods, and equipment on a local and regional transportation network, consisting of streets, railroads, transit facilities, bicycle lanes, and other modes of transportation, including walking.

The *Final Traffic Report, VA Puget Sound Health Care System – American Lake, WA* (VA CFM 2021f) provides detailed information on the discussion and analysis presented in the following assessment.

3.13.1 Affected Environment

Level of service (LOS) is a widely used and accepted method for characterizing the operating performance of numerous roadway facilities, such as roadway segments, freeway weaving sections, and intersections. LOS rates performance on a scale of A to F, with LOS A reflecting free flowing conditions and LOS F representing heavily congested conditions (Transportation Research Board 2016).

The Proposed Action is located within the boundaries of JBLM, which is situated in the unincorporated area of Pierce County, WA. A network of freeways, arterial highways, and collector roadways provide regional access to and from the American Lake campus. Veterans Drive is a two-lane roadway that provides direct access to the campus. A recent non-VA project improved Veterans Drive between the campus boundary and Washington Drive SW. Custis Boulevard, Engle Court, Engle Way, Musser Court, and Musser Avenue are the major internal roads that provide internal circulation within the American Lake campus.

Based on traffic counts completed by the City of Lakewood in December 2018, Veterans Drive operates at LOS C conditions during the morning peak hour. As indicated in the Transportation Element of the Pierce County Comprehensive Plan (Pierce County 2016), an LOS C condition is acceptable in both urbanized and rural areas of the County.

Pierce Transit has a bus stop with a shelter located along the north side of Veterans Drive adjacent to the main parking lot. The frequency of service is generally 30 minutes with 26 buses serving the campus every day. VAPSHCS-provided shuttle buses are available between the American Lake Division Campus and the Seattle Division Campus. There is a designated shuttle load/unload/parking area along the western edge of the southbound entrance to the main campus parking lot as well as a bus stop with shelter located along the west side of Custis Boulevard on the east side of Buildings 81 and 81AC.

The campus provides 1,164 parking spaces located in surface parking lots distributed throughout the campus. Approximately 91 spaces (or 7.8 percent) are designated ADA parking spaces. Observations made during recent site visits demonstrated that there is strong demand for parking, despite the fact that the observations occurred during widespread shelter in place orders in response to the COVID-19 pandemic.

The campus is very walkable for the staff. The older buildings along the east side of the campus adjacent to the lake are located fairly close together and served by sidewalks. Several of the curb ramps and sidewalks on campus are not compliant with ADA requirements, which presents an obstacle to some pedestrians and disabled persons.

3.13.2 Environmental Consequences

3.13.2.1 Proposed Action

Construction-related activities would involve the removal of construction and demolition debris, the delivery of construction materials and equipment, worker commuting, and the removal of equipment after construction concludes. Delivery and removal activities would be periodic and would occur outside of peak commuting periods. Construction worker travel would recur on a daily basis and may coincide with peak commuting periods. While worker trips would recur during the peak commuting periods, some of these trips would likely involve carpooling and/or transit, thus limiting effects on traffic.

The Proposed Action would not result in the expansion of any existing activity or the introduction of a new activity. However, VA would perform the following general campus-wide actions:

- Upgrading, installing, and/or improving existing campus roads and pathways for ADA compliance and National Fire Protection Association fire access standards.
- Replacing non-compliant curb ramps.
- Installing two new curb ramps at the existing crosswalk to the flagpole island.
- Installing an all-way stop control at the intersection of Veterans Drive and Engle Way.
- Repairing pavement on Veterans Drive from Custis Drive to Engle Way.

Cumulatively, the Building 201 project would re-route Veteran's Drive SW along the northern perimeter of the redesigned parking lot and create a net gain of 80 parking spots (refer to Figure 3-4, land use). The existing Veteran's Drive SW between Curtis Drive and Engle Way will become a pedestrian walkway. Rerouting Veteran's Drive SW (the "Ring Road" depicted in Figure 3-4) along the northern perimeter will allow patients, staff, and guests the ability to access the new Building 201, Building 81, and other campus locations without having to cross a roadway. The pedestrian walkway will also eliminate the potential trip and slip hazards currently existing due to the extruded curb adjacent to Veteran's Drive SW (VA 2011b).

All of the above improvements would result in a beneficial effect on pedestrian and traffic circulation within the campus. LOS levels would continue to operate at LOC C conditions or better. In particular, the proposed all-way stop control at Veterans Drive/Engle Way would regulate traffic movements through this intersection and would resolve any right-of-way dilemmas at this currently uncontrolled intersection. Therefore, the Proposed Action would result in a long-term beneficial impact to transportation and parking, after a short-term less than significant impact during construction.

3.13.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. VA would continue to have non-ADA compliant curb ramps, damaged pavement, and possible right-of-way conflicts at Veterans Way/Engle Way. Therefore, the No Action Alternative would not change an existing less than significant impact to transportation and parking.

3.14 UTILITIES

Utilities are the services that support the efficient and comfortable operation of a facility or location. Utilities typically considered include electricity, natural gas, steam, telecommunications, water, and wastewater. Because the Proposed Action would have no impact on natural gas, steam, or telecommunications, this section does not discuss these utilities further.

The *Final Utilities Report, VA Puget Sound Health Care System –American Lake, WA* (VA CFM 2021g) provides detailed information on the discussion and analysis presented in the following assessment.

3.14.1 Affected Environment

Local utility companies provide the campus with most of its utilities, including electricity, natural gas, water, and wastewater. VA staff regularly communicate, plan, and coordinate utility service and maintenance with their respective providers.

An overhead service from Puget Sound Energy, consisting of a 13.8 kilovolt ariel feeder from the JBLM primary distribution system, delivers electricity to the American Lake campus. The campus also has two 5-kilovolt diesel generators located in the electrical service yard (Building 121), which provide emergency power to the campus in the event of a power outage (VA CFM 2021g).

JBLM provides water service to the campus via a 12-inch main and one 8-inch main from the JBLM Pumping Station. JBLM obtains their water from a spring at the Sequelitchew Springs and eight wells within the base. The campus also has a back-up water supply available via an 8-inch line from the Lakewood Water District (VA CFM 2021g).

The campus pumps their wastewater to the Solo Point Wastewater Treatment Plant operated by JBLM. The plant filters and treats the wastewater before the plant discharges to Puget Sound (VA CFM 2021g).

JBLM recently upgraded the Solo Point Wastewater Treatment Plant to account for future development. The treatment plant operates at about 60 percent of average design flow and 25 percent of maximum design flow. The upgraded plant at Solo Point ensures JBLM meets current and future water quality requirements for Puget Sound. The facility serves JBLM, Camp Murray, and the American Lake campus. JBLM constructed the facility to ensure that the plant meets current and future discharge requirements to protect the Puget Sound water quality. It can treat effluent to Class A drinking water standards, thus setting the stage for reclaimed water usage in the future (VA CFM 2021g).

3.14.2 Environmental Consequences

3.14.2.1 Proposed Action

The Proposed Action would require the use of utilities, primarily electricity, to perform the identified actions. During the proposed seismic upgrades, some buildings/users would be subject to temporary utility outages. The construction contractor(s) would coordinate the outages in advance to minimize the potential for impacts to operations.

Under the Proposed Action, VA would improve existing wastewater and sewer infrastructure at each building to address existing deteriorated pipes. These improvements would enhance the effectiveness of these utilities and reduce potential impacts to other resources.

The Proposed Action would not substantially alter utility demand because there would be little to no change in the volume of operations currently occurring at the campus. The upgraded buildings and facilities would be more efficient in their use of utilities as compared to existing conditions. The upgraded buildings would incorporate sustainable design such as installing LED lighting, maximizing energy performance, installing advanced utility meters, and employing total building commissioning practices. Therefore, the Proposed Action would result in a beneficial impact to utilities.

3.14.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. The campus would use utilities at current demand. Existing water and wastewater system pipe deterioration would persist at the areas near the five buildings. Therefore, the No Action Alternative would result in a less than significant impact to utilities.

3.15 ENVIRONMENTAL JUSTICE

EO 12898, *Environmental Justice in Minority Populations*, requires federal agencies to consider any potentially disproportionate human health or environmental risks their activities, policies, or programs may pose to minority or low-income populations.

Minorities are individuals who are members of the following population groups: American Indian, or Alaskan Native; Asian, or Pacific Islander; Black, not of Hispanic origin; or Hispanic. CEQ requires identification of minority populations where either: (a) the minority population of the affected area exceeds 50 percent; or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population other appropriate unit of geographic analysis.

A low-income person is a person whose household income is at or below the income level. In 2019, the U.S. Census Bureau data identified this level as \$26,370 for a family of four (U.S. Census Bureau 2020a). Poverty areas are census tracts or blocks numbering areas where at least 20 percent of residents are below the poverty level.

EO 13045, *Protection of Children for Environmental Health Risks and Safety Risks*, requires federal agencies to identify and assess health risks and safety risks that may disproportionately affect children. Agencies must ensure that its policies, programs, activities, and standards address disproportionate risks to children that results from environmental health or safety risks.

3.15.1 Affected Environment

Table 3-6 presents environmental justice statistics for an area within a three-mile radius of the American Lake campus. As demonstrated by recent census data, the percent of minority or low-income communities is below the threshold for defining an environmental justice community.

Table 3-6. Environmental Justice Data for the Broader Project Area

Area	Minority Population	Low-Income Population	Median Household Income
Lake City/Pierce County	43%	8%	\$72,113

Sources: (USEPA 2021b, U.S. Census Bureau 2020b)

The project area is located on government property with restricted access. While children may be present at the American Lake campus when with family members, no permanent population of children is located within the campus. Private residences are located along the approach to the campus and adjacent to the campus on JBLM in military family housing.

3.15.2 Environmental Consequences

3.15.2.1 Proposed Action

As displayed in Table 3-6, the population within the affected area does not exceed the 50 percent minority or the 20 percent poverty thresholds. Temporary construction activities would be localized at individual buildings and portions of the campus. There would be no change in operations that might introduce a new source of concern to the community (for example, loud noises or noxious emissions). Therefore, the Proposed Action would result in no disproportionate effect on minority or low-income populations.

The Proposed Action would occur on government property, where VA controls access. Children are not typically present and fencing and controlled access separates the campus from nearby residential housing. The construction contractor(s) would implement standard job site safety measures, which include securing equipment, materials, and vehicles, and neutralizing safety hazards during construction. There would be no change in operations that might introduce a new hazard/attractant for children. Therefore, the Proposed Action would result in no impact to the health and safety of children.

3.15.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions. Existing population demographic characteristics would likely continue. Therefore, the No Action Alternative would result in no impact to minority or low-income populations or the health and safety of children.

3.16 CUMULATIVE IMPACTS

A cumulative effect is an impact on the environment that results from the incremental impact of a proposed action when added to the impacts of other past, present, and reasonably foreseeable future actions. The cumulative impacts analysis considers other actions regardless of which agency (local, state, or federal) or person undertakes the actions.

The goal of a cumulative effects analysis is to help VA decision makers and the public understand the “big picture” view of the cumulative effects of each proposed action, when added to the effects of other projects, on the future sustainability of the resources considered in detail in this EA.

Cumulative impacts are most likely to arise when a relationship or synergism exists between a proposed action and other actions expected to occur in a similar location or during a similar period. Actions overlapping with or near a proposed action have more potential for a relationship than those more geographically separated. Similarly, relatively concurrent actions would tend to offer a higher potential for cumulative impacts.

VA conducts non-recurring maintenance and minor construction projects (for example, steam line repair and installation of new telecommunications cable). In addition, VA will soon start work on a major project – the construction of the new Building 201.

Based on the analyses and nature of potential impacts identified in Sections 3.1 to 3.15, the cumulative impact analysis focuses on the following resources:

- Air Quality and Climate Change
- Cultural Resources
- Geology and Soils
- Noise and Vibration
- Transportation and Parking

3.16.1 Air Quality and Climate Change

As shown in Table 3-2, in any given year, the average annual emissions from the Proposed Action would be below the GHG threshold identified by CEQ in draft guidance for evaluating the significance of GHG emissions. Present and future projects at the American Lake campus and throughout the Puget Sound Intrastate Air Quality Control Region would contribute criteria pollutant and GHG emissions. As demonstrated by the current attainment status of Washington State for the NAAQS, regional emissions have not resulted in an exceedance of the NAAQS. Therefore, the Proposed Action would have a less than significant cumulative impact to air quality and climate change.

3.16.2 Cultural Resources

VA consults with the SHPO, tribes, and stakeholders for projects at the campus to avoid or minimize potential impacts to cultural resources. In addition to implementing project-specific measures and mitigation as identified through Section 106 consultation, VA also follows the American Lake Veterans Hospital Preservation Plan recommendations regarding adaptive reuse and the introduction of new buildings into the historic district, as well as suggestions

regarding strengthening the overall historic preservation program, to holistically retain the significance of the historic district. Therefore, the Proposed Action would have a less than significant cumulative impact to cultural resources.

3.16.3 Geology and Soils

The Proposed Action would decrease the seismic risk to people and buildings at the American Lake campus. The separate new Building 201 project would also reduce the seismic risk to the campus. At the conclusion of the Proposed Action and the new Building 201 project, VA will have reduced the seismic risk at the American Lake campus. Therefore, the Proposed Action would result in a beneficial cumulative impact to seismic conditions.

3.16.4 Noise and Vibration

Identified sensitive noise receptors would likely detect noise and vibrations generated by the Proposed Action. Noise generated by past and ongoing maintenance and construction activities, and operational noise generated by JBLM training, has affected sensitive noise receptors at the American Lake campus. As construction activity continues over the next few years, the overall noise environment will increase. But, with the conclusion of the major construction projects, the overall noise and vibration environment will improve. Therefore, the Proposed Action would result in a less than significant cumulative impact from noise and vibration.

3.16.5 Transportation and Parking

As shown in Figure 2-2, the anticipated construction timeline for the upgrades of Buildings 7, 9, and 111 overlap with the separate project for the construction of the new Building 201. Cumulatively, construction-related traffic would increase the volume of traffic and potentially lead to congestion during peak commute periods. In addition, parking at the campus has been an ongoing issue. There may be a temporary loss of a handful of parking spaces around the perimeter of each building and the campus during the building-specific upgrade and renovation activity and the construction of Building 201.

Cumulatively, the Building 201 project would re-route Veteran's Drive SW along the northern perimeter of the redesigned parking lot and create a net gain of 80 parking spots (refer to Figure 3-4). Rerouting Veteran's Drive SW (the "Ring Road" depicted in Figure 3-4) along the northern perimeter will allow patients, staff, and guests the ability to access the new Building 201, Building 81, and other campus locations without having to cross a roadway. The pedestrian walkway will also eliminate the potential trip and slip hazards currently existing due to the extruded curb adjacent to Veteran's Drive SW.

While short-term adverse cumulative impacts would occur to transportation and parking, all of these improvements would result in a long-term cumulative beneficial effect on transportation and parking. Therefore, the Proposed Action would result in a beneficial cumulative impact to transportation and parking.

CHAPTER 4 MITIGATION AND MINIMIZATION MEASURES

This chapter summarizes the measures VA would implement as part of the Proposed Action to avoid or minimize impacts to resources. For resources not listed, no measures are necessary.

BMPs are routine actions that construction contractors regularly implement. In accordance with established regulations, protocols, procedures, and permits, construction contractors would implement applicable BMPs before, during, and after construction. BMPs are distinct from mitigation and minimization measures, which are project-specific actions that offset impacts from a proposed action and, in some instances, avoid the potential for a proposed action to result in significant impacts. In addition to these project-specific measures, the BMPs identified throughout Chapter 3 are routinely implemented in VA construction projects.

The following three mitigation measures address potential impacts to cultural resources:

- A. VAPSHCS would draft a project-related inadvertent discovery plan for the project outlining procedures on what to do and who to contact if there is an inadvertent discovery as a result of the project-related minor earthwork activities. If an inadvertent discovery of cultural materials (for example, unusual amounts of shell, animal bone, bottle glass, ceramics, and structural/building remains) or human remains occurs during construction activities associated with the Proposed Action, VA would halt ground disturbances in the area of the find and a qualified professional archaeologist would assess the discovery. The archaeologist would determine whether the identified archaeological resources are eligible for listing on the NRHP, including the rationale for their conclusions. Such recommendations will cite and follow 36 CFR Part 60 and any relevant National Register Bulletin(s) (see <http://www.nps.gov/nr/publications/index.htm>).
- B. If workers encounter human remains, VA would notify the local county coroner's office immediately upon discovery. If the coroner determines that the remains are not of recent history and potentially of Native American origin, the provisions of the Native American Graves Protection and Repatriation Act would apply (25 U.S.C. Chapter 32), and VA would notify the appropriate tribes.
- C. VA is initiating Section 106 consultation for the undertaking. It is likely the outcome of consultation would result in a Programmatic Agreement. The Programmatic Agreement would be consistent with the guidelines listed in the American Lake Preservation Plan. The outcome of Section 106 consultation will be included in the Final EA.

CHAPTER 5 PUBLIC PARTICIPATION, COORDINATION, AND CONSULTATION

5.1 PUBLIC INVOLVEMENT

VA published a NEPA scoping notice in the Tacoma News Tribune on June 27th and 28th, 2021, and posted the scoping notice to the VA CFM website (www.cfm.va.gov/environmental/) (Appendix C). VA did not receive any substantive scoping comments.

VA published this Draft EA for public review. VA published a notice of availability of the Draft EA in the Tacoma News Tribune, posted the notice of availability to the VA CFM website (www.cfm.va.gov/environmental/index.asp), and notified stakeholders via email. VA will summarize and address the public comments on this Draft EA in the Final EA.

5.2 CONSULTATION AND STAKEHOLDER COORDINATION

5.2.1 Consultation

VA is initiating consultation with the Washington SHPO, tribes, and the certified local government (Pierce County) in accordance with Section 106 of the NHPA. VA will update the Final EA to reflect the outcome of Section 106 consultation.

5.2.2 Stakeholder Coordination

VA sent stakeholder scoping notification letters (Appendix B) to the entities listed below. VA has incorporated all substantive responses and information into this EA. Appendix B also contains copies of the correspondence VA received from stakeholders.

Federal Agencies

- U.S. Army Corps of Engineers, Seattle District
- USEPA Region 10
- U.S. Fish & Wildlife Service, Columbia Pacific Northwest and Pacific Islands Regions
- JBLM

State Agencies

- Washington Department of Ecology (Southwest Regional Office)
- Washington Department of Fish and Wildlife
- SHPO

Local Agencies

- Pierce County Environmental Services, Sewer
- Pierce County Planning & Public Works
- City of Lakewood
- City of Tacoma
- West Pierce Fire District

Federal Elected Officials

- Patty Murray, U.S. Senator – Washington
- Maria Cantwell, U.S. Senator – Washington
- Ron Wyden, U.S. Senator – Oregon
- Jeff Merkley, U.S. Senator – Oregon
- Marilyn Strickland, U.S. Congresswoman Washington District 10
- Kim Schrier, U.S. Congresswoman Washington District 8
- Susan DelBene, U.S. Congresswoman Washington District 1
- Rick Larsen, U.S. Congressman Washington District 2
- Jaime Herrera, U.S. Congresswoman Washington District 3
- Dan Newhouse, U.S. Congressman Washington District 4
- Derek Kilmer, U.S. Congressman Washington District 6
- Pramila Jayapal, U.S. Congresswoman Washington District 7
- Adam Smith, U.S. Congressman Washington District 9
- Suzanne Bonamici, U.S. Congresswoman Oregon District 1
- Cliff Bentz, U.S. Congressman Oregon District 2
- Earl Blumenauer, U.S. Congressman Oregon District 3

State Elected Officials

- Dan Bronoske, Washington State Representative
- Mari Leavitt, Washington State Representative District 28
- T'wina Nobles, Washington State Senator 28th Legislative District

Federally Recognized Tribes with Interests in Pierce County, Washington

- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Cowlitz Indian Tribe
- Muckleshoot Indian Tribe
- Nisqually Indian Tribe
- Puyallup Tribe of Indians
- Suquamish Tribe

Other Regional Tribes

- Squaxin Island Tribe
- Snoqualmie Indian Tribe
- Samish Indian Nation

Other Stakeholders

- Friends of American Lake Golf Course

CHAPTER 6 LIST OF PREPARERS

The following professionals contributed to the preparation of this EA.

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Roxanne Beasley, Document Production

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APPENDIX A ENVIRONMENTAL PERMIT AND COMPLIANCE REQUIREMENTS

Based on the analysis contained in this environmental assessment and a review against applicable regulatory thresholds, no permits are required for the Proposed Action.

Table A-1 identifies the principal federal, state, and local laws and regulations that are applicable to the Proposed Action and describes briefly how VA would comply with the applicable requirements.

Table A-1. Permit and Compliance Requirements Applicable to the Proposed Action

Requirement	Status of Compliance
National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code [U.S.C.] 4321-4370h), as implemented by the Council on Environmental Quality regulations (40 Code of Federal Regulations [CFR] 1500-1508); <i>Environmental Effects of the Department of Veterans Affairs Actions</i> (38 CFR Part 26); and VA's <i>NEPA Interim Guidance for Projects</i> .	VA has prepared this environmental assessment in compliance with NEPA, Council on Environmental Quality regulations implementing NEPA, and VA NEPA procedures.
Clean Air Act (42 U.S.C. section 7401 et seq.)	Because the project is in an attainment area, VA does not need to prepare a Record of Non-Applicability. Less than significant impacts to air quality would occur and thus the project would comply with the Clean Air Act.
National Historic Preservation Act (NHPA) (section 6, 54 U.S.C. section 3001 et seq.)	VA is initiating consultation with the Washington State Historic Preservation Office, tribes, and the certified local government (Pierce County) in accordance with Section 106 of the NHPA. It is likely the outcome of consultation would be a Programmatic Agreement that would resolve the effects of the Proposed Action. The Programmatic Agreement would be consistent with the guidelines listed in the American Lake Preservation Plan.
Native American Graves Protection and Repatriation Act (25 U.S.C. Chapter 32)	If workers encounter human remains, VA would notify the local county coroner's office immediately upon discovery. If the coroner determines that the remains are not of recent history and potentially of Native American origin, VA would inform tribes and the Washington SHPO and consult on their disposition.
Executive Order (EO) 13175, <i>Consultation and Coordination with Indian Tribal Governments</i>	Through the Section 106 process, VA is conducting meaningful consultation and collaboration with Indian tribal officials.
EO 13717, <i>Establishing a Federal Earthquake Risk Management Standard</i> , and Title 38 U.S.C. section 8105, <i>Structural Requirements</i>	The Proposed Action would address current seismic deficiencies, comply with VA seismic design requirements and regulatory and policy requirements that define VA requirements and policy regarding seismic safety of buildings (VA Handbook H-18-8, <i>Seismic Design Requirements</i> ; VA Directive 7512, <i>Seismic Safety of VA Buildings</i>), and decrease the risk of seismic-related impacts to people and property.
Clean Water Act (33 U.S.C. section 1251 et seq.)	Proposed construction activities would follow best management practices to limit potential water quality impacts and comply with the Clean Water Act. The Proposed Action would result in minimal disturbed soil area (less than one acre) and would thus be exempt from the requirements of the Construction General Permit.

Requirement	Status of Compliance
Endangered Species Act (16 U.S.C. section 1531 et seq.)	No habitat for federally listed endangered or threatened species are known to occur in the project area; thus no impacts would occur to Endangered Species Act listed species.
Migratory Bird Treaty Act (16 U.S.C. Sections 703-712)	No impact to migratory birds or their habitat would occur.
Noise Pollution and Abatement Act of 1972 and Washington Administrative Code (WAC) 173-60 (WAC 2019)	The Proposed Action would generate temporary noise at levels below those that could impact human health. Construction noise at temporary construction sites is exempt from WAC 173-60.
EO 11988, <i>Floodplain Management</i>	No impact to floodplains would occur because no floodplains are located in the project area.
Coastal Zone Management Act (16 U.S.C. section 1451 et seq.)	VA has determined that the Proposed Action is not a development project and would have no effect on any coastal use or resource. As such, VA does not need to prepare a consistency determination; however, VA has notified Ecology of the availability of the Draft EA for review and comment.
EO 12898, <i>Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations</i>	The Proposed Action would not result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.
EO 13045, <i>Protection of Children from Environmental Health Risks and Safety Risks</i>	The Proposed Action would not result in environmental health risks and safety risks that may affect children.
Asbestos National Emission Standards for Hazardous Air Pollutants and Washington Administrative Code 173-400-075.	Through the construction contractor, VA would notify the Puget Sound Clean Air Agency and provide Washington State Department of Occupational Safety and Health with written notification at least 10 working days prior to the commencement of asbestos removal projects. A State of Washington-certified asbestos abatement contractor would conduct the removal of ACM.
Occupational Safety and Health Administration and Washington State Department of Occupational Safety and Health regulations (29 CFR 1926.62; Washington Administrative Code 296-62-176).	Workers would handle all lead containing components in accordance with Occupational Safety and Health Administration and Washington State Department of Occupational Safety and Health regulations.
Transportation Element of the Pierce County Comprehensive Plan	The Proposed Action would result in a level of service condition rating of "C" or higher and thereby be consistent with this Plan.

APPENDIX B AIR QUALITY EMISSIONS ESTIMATES

Emissions Summary

VAPSHCS Seismic Retrofit and Renovations Buildings 7, 8, 9, 81, and 111 and Additional Site Work

Year and Activity	Emissions (tons/year)						CO ₂ e (metric tons/year)
	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}	
Year 1 Heavy Equipment Construction + Fugitive Dust	24.0	4.9	28.8	0.0	2.0	1.6	35,544.5
Year 1 On-road Vehicles and Worker Commutes	8.9	0.6	1.7	0.0	0.1	0.1	601.4
Total Year 1	32.9	5.4	30.5	0.0	2.1	1.7	36,145.9
de minimis Threshold for GCR (per year)	100	50	100	100	100	100	--
Exceeds de minimis in any year?	No	No	No	No	No	No	--
Draft NEPA Greenhouse Gases (GHG) Threshold (mtpy)							25,000
GHG exceeds threshold in any year?							No

Numbers may not add precisely by hand if calculated from this table due to rounding and decimal values not shown. Values are shown in the table rounded to the nearest 10th. The actual calculation result may include values in the 1000th place, and may summarize to a value with a result in the

Construction Assumptions

VAPSHCS Seismic Retrofit and Renovations Buildings 7, 8, 9, 81, and 111 and Additional Site Work

- Assume construction starts in 2021 and continues to the end of the year. As a worst-case scenario, all buildings will be simultaneously modified and will not share construction resources.
- Assume dump trucks are highway licensed and worthy vehicles due to distance of fill haul, not quarry-type dump trucks.
- Assume a crew of 20 for each facility, totalling 80 during construction in 2021 and that all workers drive independently to site.
- For vehicle trips for workers, a light-duty pick up truck is the assumed most common vehicle. Actual worker vehicle usage will vary.
- Emissions calculated based on methodology and data published in U.S. Environmental Protection Agency's (EPA) Motor Vehicle Emission Simulator, 2014b, CALEE MOD, an emissions modeling software published by the California Air Resources Board and San Diego County Air Pollution Control District, and the International Council on Clean Transportation's Working Paper 16-4, Non-road emission inventory model methodology.
- Fugitive emissions of dust are calculated assuming no control measures (such as watering) are used. Actual emissions would be lower if dust suppression best management practices, like watering down a site, are used.
- The additional following projects are included within the one-year worst case scenario construction timeframe.
 - Upgrading, installing, and/or improving existing campus roads and pathways for ADA compliance and National Fire Protection Association fire access standards.
 - Replacing non-compliant curb ramps.
 - Installing two new curb ramps at the existing crosswalk to the flagpole island.
 - Installing an all-way stop control at the intersection of Veterans Drive and Engle Way.
 - Repairing pavement on Veterans Drive from Custis Drive to Engle Way.

Heavy Construction Emissions Estimates

VAPSHCS Seismic Retrofit and Renovations Buildings 7, 8, 9, 81, and 111 and Additional Site Work

Nonroad Equipment Emissions

Year	Phase/Element	Equipment			Equipment Operations			Emissions (lbs/day)										Emissions								
		Equipment	Fuel Type	Horsepower (hp)	Load Factor	Pieces of Equipment	Hours per day	Days in Service	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	CH4	N2O	CO (tpy)	VOC (tpy)	NOx (tpy)	SOx (tpy)	PM10 (tpy)	PM2.5 (tpy)	CO2 (mtpy)	CH4 (mtpy)	N2O (mtpy)
2021	Seismic Retrofits & Site Work	Concrete Truck	Diesel	210	20	8	4	30	8.0	2.0	24.2	0.0	1.1	1.0	150,528.0	15.1	158.6	0.1	0.0	0.4	0.0	0.0	0.0	2,048.4	0.2	2.2
2021	Seismic Retrofits & Site Work	Generator - 50 KW	Diesel	30	74	8	8	160	15.6	5.6	21.6	0.0	0.0	0.0	43,476.5	14.4	41.5	1.3	0.5	1.7	0.0	0.0	0.0	3,153.3	1.0	3.0
2021	Seismic Retrofits & Site Work	Fork Lift	Diesel	83	30	8	4	160	6.1	1.7	15.4	0.0	1.2	1.1	58,644.5	10.0	63.6	0.5	0.1	1.2	0.0	0.1	0.1	4,256.1	0.7	4.6
2021	Seismic Retrofits & Site Work	Crane - 150 Ton	Diesel	314	41	4	4	60	12.3	3.1	37.1	0.0	1.7	1.6	230,702.1	23.1	243.1	0.4	0.1	1.1	0.0	0.1	0.0	6,278.7	0.6	6.6
2021	Seismic Retrofits & Site Work	CAT 416 Rubber Tire Backhoe/Loader	Diesel	87	55	3	4	60	199.8	33.1	222.2	0.3	16.8	15.0	156,182.4	12.9	126.3	6.0	1.0	6.7	0.0	0.5	0.4	4,250.6	0.4	3.4
2021	Seismic Retrofits & Site Work	Trencher	Diesel	69	75	2	4	30	190.4	47.4	292.3	0.3	24.4	23.4	26,868.6	4.3	27.8	2.9	0.7	4.4	0.0	0.4	0.4	365.6	0.1	0.4
2021	Seismic Retrofits & Site Work	Skid Steer Loader	Diesel	37	55	8	4	160	139.2	24.6	133.6	0.2	7.4	6.6	16,605.6	2.2	12.7	11.1	2.0	10.7	0.0	0.6	0.5	1,205.1	0.2	0.9
2021	Detail Construction	Skid Steer Loader	Diesel	37	55	4	4	20	69.6	12.3	66.8	0.1	3.7	3.3	8,302.8	1.1	6.5	0.7	0.1	0.7	0.0	0.0	0.0	75.3	0.0	0.1
2021	Detail Construction	Generator - 50 KW	Diesel	30	74	8	4	150	7.8	2.8	10.8	0.0	0.0	0.0	21,738.2	7.2	20.7	0.6	0.2	0.8	0.0	0.0	0.0	1,479.0	0.5	1.4
2021	Detail Construction	Fork Lift	Diesel	83	30	8	4	150	6.1	1.7	15.4	0.0	1.2	1.1	58,644.5	10.0	63.6	0.5	0.1	1.2	0.0	0.1	0.1	3,990.1	0.7	4.3
Total 2021									655.1	134.5	839.4	1.0	57.6	53.1	771,693.2	100.2	764.2	24.0	4.9	28.8	0.0	1.8	1.6	27,104.3	4.4	26.9

Notes:

tpy = tons per year

mtpy =

tons per

Conversion to metric tons = 1 short ton (2000 lbs) =

0.90718 metric tons

Emissions Factors:

Equipment	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	CH4	N2O
Excavator - Large (250 hp)	6.0E-03	1.5E-03	1.8E-02	1.1E-05	8.4E-04	7.5E-04	7.4E+01	1.3E-02	8.0E-02
Water Truck - 4000 Gallon	4.7E-01	3.8E-02	3.7E-01	9.0E-04	1.6E-02	1.4E-02	7.7E+01	3.4E-03	3.6E-02
Grader	7.3E-01	1.3E-01	9.5E-01	1.4E-03	5.3E-02	4.7E-02	1.1E+02	1.1E-02	1.2E-01
Concrete Truck	6.0E-03	1.5E-03	1.8E-02	1.1E-05	8.4E-04	7.5E-04	1.1E+02	1.1E-02	1.2E-01
Generator - 50 KW	1.1E-02	4.0E-03	1.5E-02	1.1E-05	1.7E-05	1.5E-05	3.1E+01	1.0E-02	2.9E-02
Fork Lift	7.7E-03	2.2E-03	1.9E-02	1.1E-05	1.5E-03	1.4E-03	7.4E+01	1.3E-02	8.0E-02
CAT 416 Rubber Tire Backhoe/Loader	3.5E-01	5.8E-02	3.9E-01	6.0E-04	2.9E-02	2.6E-02	2.7E+02	2.3E-02	2.2E-01
Trencher	4.6E-01	1.1E-01	7.1E-01	8.0E-04	5.9E-02	5.7E-02	6.5E+01	1.0E-02	6.7E-02
Crane - 150 Ton	6.0E-03	1.5E-03	1.8E-02	1.1E-05	8.4E-04	7.5E-04	1.1E+02	1.1E-02	1.2E-01
Skid Steer Loader	2.1E-01	3.8E-02	2.1E-01	3.0E-04	1.1E-02	1.0E-02	2.6E+01	3.4E-03	2.0E-02

Fugitive Dust - Particulate Emissions

Year	Phase/Element	Cubic Yard of Material Moved (in 1000 CY)	Acres	Months	PM10 Emissions ton/acre-month	PM10 Emissions ton/1000 cubic yards off-site fill	PM10 (tpy)
2021	Grading and Fill Placement	1	0.5	1	0.011	0.22	0.2255

Emission Factor Sources:

United States Environmental Protection Agency (USEPA). 2018. Exhaust and Crankcase Emissions Factors for Nonroad Compression-Ignition Engines in MOVES2014b.

USEPA MOVES2014b Motor Vehicle Emissions Simulator

Western Governor's Association. 2006. Western Regional Air Partnership Fugitive Dust Handbook. September 7.

Emissions Summary Onroad Vehicles Trips
VAPSHCS Seismic Retrofit and Renovations Buildings 7, 8, 9, 81, and 111 and Additional Site Work

Year	Phase	Vehicle Class	No. of Vehicles Trips (per day)	Average Speed (mph)	VMT (mi/vehicle trip-day)	Hours per day per trip	Total Hours Per day per Vehicle Type	Emissions (lbs/day)										Days of Work	Emissions							
								CO	VOC	NOx	SOx	PM10	PM2.5	CO2	CH4	N2O	CO (tpy)		VOC (tpy)	NOx (tpy)	SOx (tpy)	PM10 (tpy)	PM2.5 (tpy)	CO2 (Mtpy)	CH4 (Mtpy)	N2O (Mtpy)
2021	Transport Trucks	Heavy-duty truck, diesel, GVWR 33,000 and up, 2003 and up	6	40	60	3	18	1.5	2.7	5.4	0.0	0.3	0.3	1,680.8	0.0	0.0	160	0.1	0.2	0.4	0.0	0.0	0.0	122.0	0.0	0.0
2021	Moving Trucks	Light-duty truck (gasoline) with catalyst	10	15	10	1	10	28.4	1.2	4.1	0.0	0.2	0.2	107.8	0.0	0.0	310	4.4	0.2	0.6	0.0	0.0	0.0	15.2	0.0	0.0
2021	Worker Vehicle Trips	Light-duty truck (gasoline) with catalyst	80	55	40	2	160	28.4	1.2	4.1	0.0	0.2	0.2	3,232.5	0.2	0.2	310	4.4	0.2	0.6	0.0	0.0	0.0	454.5	0.0	0.0
Total 2021								58.2	5.2	13.7	0.1	0.8	0.7	5,021.0	0.2	0.2	--	8.9	0.6	1.7	0.0	0.1	0.1	591.7	0.0	0.0

mph = miles per hour
 VMT = Vehicle Miles Traveled
 tpy = Tons per year
 mtpy = metric tons per year
 Conversion of grams to pounds (lb)
 - Conversion to metric tons = 1 short ton (2000 lbs) =

453.6
 0.907 metric tons

Emissions Factors:

Equipment	CO		VOCs					NOx		SOx	PM10			CO2		CH4		N2O				
	Running Exhaust (g/mi)	Start-up (g/start)	Running Exhaust (g/mi)	Start-up (g/start)	Hot-Soak (g/trip)	Resting Loss (g/hr)	Running Evaporative (g/mi)	Diurnal Evaporative (g/hr)	Running Exhaust (g/mi)	Start-up (g/start)	Running Exhaust (g/mi)	Start-up (g/start)	Tire Wear (g/mi)	Brake Wear (g/mi)	Running Exhaust (g/mi)	Start-up (g/start)	Running Exhaust (g/mi)	Start-up (g/start)	Running Exhaust (g/mi)	Start-up (g/start)		
Heavy-duty truck, diesel, GVWR 33,000 and up, 2003 and up	1.83		3.44						6.76	0.02		0.36		0.04	0.01	2,117.80		0.04		0.00		
Light-duty truck (gasoline) with catalyst	3.44	11.79	0.06	0.87	0.08	0.05	0.07	0.02	0.56	0.59	0.01	0.00	0.01	0.02	0.01	0.01	448.00	203.87	0.03	0.05	0.03	0.06

Emission Factor Sources:
 United States Environmental Protection Agency. 2015. Exhaust Emission Rates for Heavy Duty On-road Vehicles in MOVES2014. November.
 USEPA 2016. Air Toxic Emissions from On-road Vehicles in MOVES2014
 USEPA MOVES2014b Motor Vehicle Emissions Simulator

APPENDIX C AGENCY AND STAKEHOLDER CORRESPONDENCE



DEPARTMENT OF VETERANS AFFAIRS
VA Puget Sound Health Care System
1660 South Columbian Way
Seattle, WA 98108-1597

June 28, 2021

American Lake Division
Tacoma WA 98493-5000

In Reply Refer To: 663/S-00

Seattle Division
Seattle WA 98108-1597

Dear Valued Stakeholder,

The U.S. Department of Veterans Affairs (VA), Office of Construction and Facilities Management is proposing to address seismic deficiencies at the VA Puget Sound Health Care System (VAPSHCS), American Lake Division Campus located at 9600 Veterans Drive Southwest, Tacoma, WA (Figure 1). The purpose of the Proposed Action is to address existing seismic deficiencies. The Proposed Action is needed to improve safety for Veterans, staff and visitors, and to ensure the continuity of health care services to Veterans. The VA proposes to implement the Proposed Action in a phased program consisting of seismic upgrades to five buildings (Figure 2). This scoping notice is also available online at <https://www.cfm.va.gov/environmental/>.

VA is preparing an Environmental Assessment (EA) to assess the potential environmental impacts associated with implementing the potential seismic upgrades at the campus. VA will prepare the EA in accordance with the regulations implementing the procedural provisions of the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code 4321-4370h), as implemented by the Council on Environmental Quality regulations (40 Code of Federal Regulations [CFR] 1500-1508), and VA Implementing Regulations (38 CFR Part 26). The EA will evaluate the potential direct and indirect impacts on the human environment resulting from the Proposed Action.

If you have comments on the scope of issues for analysis, or input on potential alternatives or information/analyses relevant to the Proposed Action, please submit your comments/input via email to vacoenvironment@va.gov with the subject line "American Lake Seismic Upgrades EA" by July 31, 2021. For additional information or questions, please contact Ms. Christine Modovsky, VA Environmental Engineer, at Christine.Modovsky@va.gov or (202) 632-5352. Reference "American Lake Seismic Upgrades EA" in your correspondence.

VA anticipates releasing the Draft EA for a 30-day public review and comment period in Fall 2021. VA will notify stakeholders via email/mail, publish a notice of availability of the Draft EA in the *News Tribune*, and solicit comments at that time. The Draft EA will be available for review at the Tillicum Pierce County Library (located at 14916 Washington Ave SW, Lakewood) and via the VA website: <https://www.cfm.va.gov/environmental/>.

Respectfully,

A handwritten signature in blue ink, appearing to read "Michael C. Tadych".

Michael C. Tadych
Director

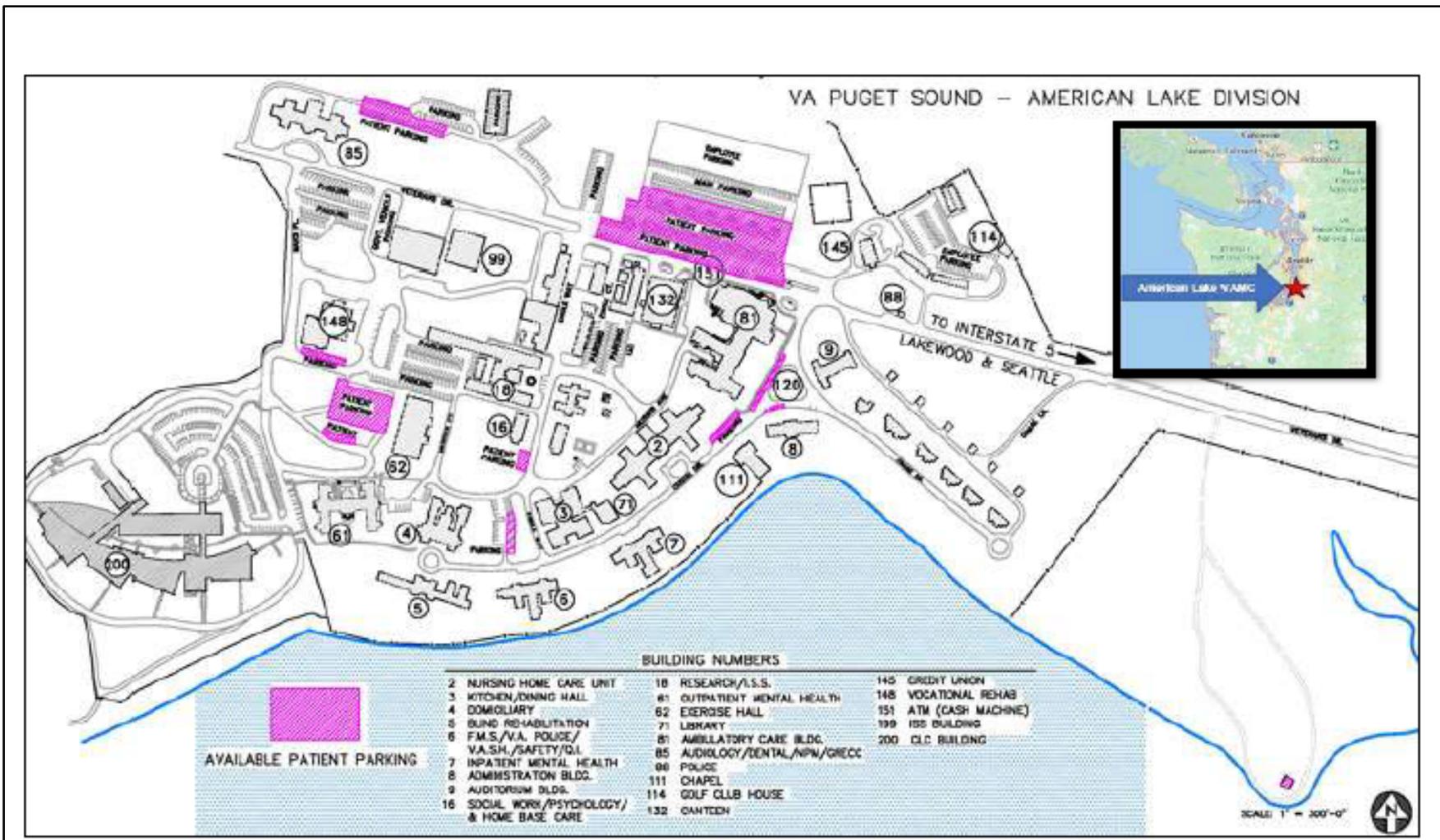


Figure 1. Location of VAPSHCS American Lake Division Campus, Tacoma, WA



Figure 2. Location of Proposed Building Seismic Upgrades, American Lake Division Campus, Tacoma, WA

From: Joseph Zukauskas <joseph.zukauskas@piercecounitywa.gov>
Sent: Tuesday, June 29, 2021 8:34:14 PM
To: Elliott, Glenn (CFM) <Glenn.Elliott@va.gov>
Cc: Rance Smith <rance.smith@piercecounitywa.gov>
Subject: [EXTERNAL] Scoping Notice for Veterans Affairs Seismic Upgrades Environmental

Dear Glenn,

As Sewer Engineer of the Day at Pierce County Department of Planning & Public Works I reviewed your request for information and attached letter. Preparing a formal response regarding potential impacts to sanitary sewers for the proposed seismic upgrades project will require more time and resources than we have available today. I have forwarded your request for our input to my supervisor. We will send you an Email by close of business Friday, July 2, with at least general information regarding the seismic upgrades project, any required sewer applications or permits, and possibly a request for additional information.

Sincerely,

Joe Zukauskas
Civil Engineer 2
Pierce County Planning & Public Works
(253) 798-3076 | Joseph.Zukauskas@piercecounitywa.gov

Please visit <https://www.co.pierce.wa.us/1654/Forms-Plans-Residential-Commercial> for sewer forms, details, checklists, standard plans, and specifications.

From: Rhonda Foster <rfoster@squaxin.us>
Sent: Tuesday, June 29, 2021 1:41 PM
To: Elliott, Glenn (CFM); Shaun Dinubilo
Cc: Rhonda Foster
Subject: [EXTERNAL] RE: Scoping Notice for Veterans Affairs Seismic Upgrades Environmental Assessment, Tacoma, WA

Starting August 6th, 2019 our new archaeologist, Shaun Dinubilo will be reviewing and commenting on all projects for the Cultural Resources Department at the Squaxin Island Tribe. Please send all project review requests to him in the future. I am forwarding this to him now.

Thank you

Email is my preferred method of communication

D 360-432-3850
rfoster@squaxin.us



Rhonda Foster
CR Director, THPO
CR Department

Squaxin Island Tribe
200 S.E. Billy Frank Jr. Way
Shelton, WA 98584

From: Dennis Lewarch <dlewarch@Suquamish.nsn.us>
Sent: Tuesday, June 29, 2021 1:20 PM
To: VACO Environment <VACOEnvironment@va.gov>
Subject: [EXTERNAL] American Lake Seismic Upgrades EA

Department of Veterans Affairs, Environmental Program Office:

The Suquamish Tribe does not have comments or concerns regarding cultural resources for the proposed seismic upgrade of VA facilities at the American Lake Division Campus. Thank you for consulting the Suquamish Tribe.

Best,

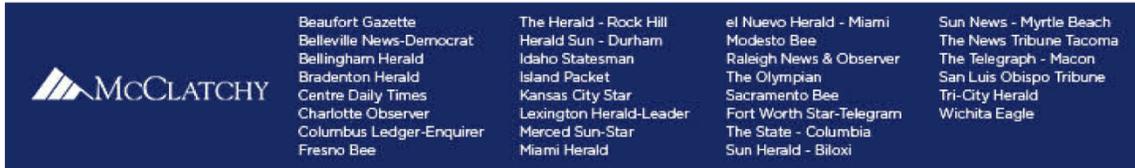
Dennis

Dennis E. Lewarch
Tribal Historic Preservation Officer
Archaeology and Historic Preservation Department
Suquamish Tribe

THE SUQUAMISH TRIBE Office Telephone:360-394-8529 Cell:360-509-1321 FAX:360-598-4666

<i>Mailing Address:</i>	<i>Suquamish Tribe Administration Building Street Address:</i>
P.O. Box 498	18490 Suquamish Way
Suquamish, WA 98392	Suquamish, WA 98392

APPENDIX D PUBLIC INVOLVEMENT



AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
58880	88540	Print Legal Ad - IPL0029609		\$800.53	2	3.31

Attention: SCOUT ENVIRONMENTAL,
SCOUT ENVIRONMENTAL, INC. IP
169 Saxony Road Suite 214
Encinitas, CA 92024

**PUBLIC NOTICE
SCOPING FOR AN ENVIRONMENTAL ASSESSMENT
U.S. DEPARTMENT OF VETERANS AFFAIRS
VA Puget Sound Health Care System
Proposed Seismic Upgrades at VA Puget Sound American Lake
Campus Tacoma, WA**

The U.S. Department of Veterans Affairs (VA) requests scoping input for the preparation of an Environmental Assessment (EA) for proposed seismic upgrades at the VA Puget Sound Health Care System (VAPSHCS) American Lake Campus, located in Tacoma, WA. VA proposes to implement a phased program of seismic upgrades to five buildings over several years. The purpose of the Proposed Action is to address existing seismic deficiencies. The Proposed Action is needed to improve safety for Veterans, staff, and visitors, and to ensure the continuity of health care services to Veterans. Additional project details are available in the scoping notice at <https://www.cfm.va.gov/environmental/>.

If you have comments on the scope of issues for analysis, or input on potential alternatives or information/analyses relevant to the Proposed Action, please submit your comments/input via email by July 31, 2021 to vacoenvironment@va.gov with the subject line "American Lake Seismic Upgrades EA." For additional information or questions please contact Ms. Christine Modovsky, VA Environmental Engineer, at Christine.Modovsky@va.gov or (202) 632-5352. Reference "American Lake Seismic Upgrades EA" in your correspondence.

VA anticipates releasing the Draft EA for a 30-day public review and comment period in Fall 2021. VA will publish a notice of availability of the Draft EA in the News Tribune and solicit public comments at that time. The Draft EA will be available for public review at the Tillicum Pierce County Library (located at 14916 Washington Ave SW, Lakewood) and via the VA website: <https://www.cfm.va.gov/environmental/>.
IPL0029609
Jun 27-28 2021

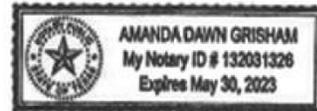
Calandra Daniels, being duly sworn, deposes and says: That he/she is the Principal Clerk of the publication; The News Tribune, printed and published in Tacoma, Pierce County, State of Washington, and having a general circulation therein, and which said newspaper(s) have been continuously and uninterruptedly published in said County during a period of six months prior to the first publication of the notice, a copy of which is attached hereto: that said notice was published in The News Tribune, as amended, for:

No. of Insertions: 2
Beginning Issue of: 06/27/2021
Ending Issue of: 06/28/2021

Principal Clerk

Sworn to and subscribed before me this 28th day of June in the year of 2021 before me, a Notary Public, personally appeared before me Calandra Daniels known or identified to me to be the person whose name subscribed to the within instrument, and being by first duly sworn, declared that the statements therein are true, and acknowledged to me that he/she executed the same.

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!