Prologis Park Edgewood
Draft Environmental Impact Statement

July 18, 2025

EDGEWOOD
Washington

Draft Environmental Impact Statement

Prologis Park Edgewood

Prepared for

City of Edgewood
Community and Economic Development Department
10440 Dom Calata Way East, Edgewood, WA 98372

Prepared by

AHBL, Inc.
2215 North 30th Street, Tacoma, WA 98403

Prepared in compliance with the State Environmental Policy Act, Revised Code of Washington 43.21C as amended, and its implementing rules, Washington Administrative Code 197

Edgewood City Hall
10440 Dom Calata Way E | Edgewood, WA 98372
(253) 952-3299 | cityhall@cityofedgewood.org
www.cityofedgewood.org

ProLogis Park DEIS Cover Letter

July 18, 2025

Dear Interested Parties, Tribes, Jurisdictions, and Agencies,

The City of Edgewood is issuing the following Draft Environmental Impact Statement (DEIS) for the proposed Prologis Park Edgewood project. Prologis, Inc. (the Applicant) proposes to develop the site with up to approximately 986,000 SF of warehouse buildings on an approximately 87.7-acre site located in Edgewood, Washington. This Draft EIS has been prepared to satisfy the requirements of the Washington State Environmental Policy Act. This DEIS analyzes the probable adverse environmental impacts associated with the development of two (2) Action Alternatives and the No Action Alternative. The analysis and DEIS address the following elements of the environment, which were identified during scoping:

- Earth
- Cultural Resources
- Surface Water
- Groundwater
- Plants and Animals
- Noise
- Land Use
- Economic and Social Policy
- Transportation
- Public Services and Utilities

This DEIS proposes mitigation to address adverse environmental impacts of the proposed project identified in the review. In some cases, implementation of mitigation measures would reduce but not significantly avoid, minimize, or reduce the environmental impact. The proposed project under both Action Alternatives will likely result in significant adverse impacts to plants and animals and surface water. Mitigation measures have been proposed by the Applicant to reduce the significant adverse impacts related to both plants and animals and surface water; however, to date, there is no information available that would reduce the level of impact to less than significant. Impacts and required mitigation measures related to plants and animals and surface water will continue to be determined through ongoing consultation.

The 45-day public comment period for this DEIS will open on July 18, 2025 and close on September 1, 2025, at 5pm. Agencies, tribes, organizations, and members of the public are invited to comment on the DEIS. Comments should focus on the substance of the DEIS and be as specific as possible. Comments may be submitted in the following ways:

- Email: comdev@cityofedgewood.org;
- Phone: call (253) 300-5354 and leave a voicemail; or
- Mail or drop-off:
  Edgewood City Hall
  RE: ProLogis Park DEIS
  10440 Dom Calata Way E
  Edgewood, WA 98372-0101
- In person at the DEIS Public Meeting on August 20, 2025 at 5:00 pm
  Edgewood City Hall, Council Chambers

The Draft EIS and appendices are available for review electronically on the City's website at https://cityofedgewood.org/387/. The Draft EIS is also available for review upon request at Edgewood City Hall, 10440 Dom Calata Way E, Edgewood, WA 98372, and at Milton/Edgewood Public Library , 900 Meridian Ave E, Suite 29, Milton, WA 98354, during regular business hours. Printed copies can be provided by request, at cost.

Following the DEIS comment period, the City of Edgewood will prepare a Final EIS (FEIS). Comments received during the public comment period will be considered in the preparation of the FEIS. The FEIS is anticipated to be published in Winter 2025. The FEIS may be used by agencies to inform permit decisions for the proposed project.

Sincerely,

Jeremy Metzler
Community Development Director
(253) 300-5354 | comdev@cityofedgewood.org

Fact Sheet

Project Title

Prologis Park Edgewood

General Description of Proposed Project

Prologis, Inc. (the Applicant) proposes to develop the site with warehouse buildings and associated truck docks, trailer parking, vehicle parking, landscaping, and utilities, as well as off-site improvements, but does not include specific tenants at this time. The proposed Prologis Park Edgewood project includes the development of up to approximately 986,000 square feet (SF) of new building area designated for either high cube/fulfillment center or industrial park users, or a combination of both.

Description of Alternatives

This Draft Environmental Impact Statement (EIS) evaluates three (3) alternatives, including a No Action Alternative and two (2) Action Alternatives.

The **No Action Alternative** represents the most likely future conditions if there is no development of the site. Under the No Action Alternative none of the proposed project facilities would be constructed and the site would remain unchanged.

Action Alternative 1 proposes industrial redevelopment of the project site with the construction of three (3) warehouse buildings and the realignment of Wapato Creek. The three (3) warehouse buildings included in Action Alternative 1 total 986,032 SF of building area:

- Building A: 160,476 SF
- Building B: 349,340 SF
- Building C: 476,216 SF

Action Alternative 1 proposes realignment of Wapato Creek that includes 77,194 SF of wetland impact, 3,002 linear feet of streams impact, and 99,709 SF of wetland and stream buffer impact.

Action Alternative 2 proposes industrial redevelopment of the project site with the construction of four (4) warehouse buildings. Realignment of Wapato Creek is not included in this Action Alternative. The four (4) warehouse buildings included in Action Alternative 2 total 963,098 SF of building area:

- Building A: 333,315 SF
- Building B: 240,715 SF
- Building C: 188,352 SF
- Building D: 200,716 SF

Action Alternative 2 is designed to avoid direct impacts to onsite critical areas by utilizing all developable upland areas onsite primarily between Wapato Creek and Simons Creek. Avoidance of all environmental impacts however is not possible due to encumbrance of several onsite wetlands and straightened stream and associated buffers that bisects the majority of the project site.

Location/Background Information

The project site consists of an approximately 87.7-acre site located at 4309, 4321, 4119, 4211, 4223, 4120, 3926, and 4411 90th Avenue East; 9007, 9019, and 9105 43rd Street Court East; 3907 84th Avenue Court East; XXXX 38th Street East; 8719 and XXXX 42nd Street Court East; XXXX 40th Street East; and XXXX Valley Avenue East in the City of Edgewood, Washington. The project site consists of 15 parcels situated in the Northeast Quarter of Section 17 and the Southwest Quarter of Section 16, Township 20 North, Range 04 East, W.M. The following are the project site the parcel numbers:

- 042016-3003
- 042016-3074
- 042016-7705
- 042017-5004
- 042016-3026
- 042016-3023
- 042016-3051
- 042016-3076
- 042016-7706
- 042017-5015
- 042016-3047
- 042016-3052
- 042016-7704
- 042016-3055
- 042016-7703

The project site is within the 1873 surveyed boundary of the Puyallup Tribal Reservation. Since the late 17th century, the project site has been primarily used for agricultural and associated residential uses. The project site is currently vacant, and all agricultural uses have been discontinued.

Applicant (Proponent)

Prologis, Inc.

Proposed Date of Implementation

The Applicant plans to begin clearing and grading activities upon the issuance of the Final Environmental Impact Statement.

Lead Agency

City of Edgewood

Lead Agency Responsible Official

Jeremy Metzler, P.E., Community Development Director
City of Edgewood

Lead Agency Contact Person

Josh Kubitza, AICP, Planning Manager
City of Edgewood
10440 Dom Calata Way East, Edgewood, WA 98372
253-392-3299
josh@cityofedgewood.org

Potentially Required Permits and Approvals

The following local, state, and federal permits may be required for development of either of the Action Alternatives. Additional permits beyond those listed below may be required for site development.

City of Edgewood

- State Environmental Policy Act (SEPA)
- Site Plan Review Permit
- Critical Areas Approval
- Tree Retention Plan Approval
- Master Sign Plan Approval
- Boundary Line Adjustment
- Traffic Concurrency Certificate
- Site Development Permit
- Right-of-Way Permit(s)
- Building, Fire, Mechanical, and Plumbing Permits

Washington State Department of Ecology

- Construction Stormwater General Permit
- Ecology Section 401 Individual Water Quality Certification
- National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater General Permit (ISGP)
- Dam Safety Construction Permit – if applicable

City of Fife

- Certificate of Water Availability
- Water Service Boundary Amendment
- Right-of-Way Permit(s)

City of Puyallup

- Letter of Sewer Availability
- Right-of-Way Permit(s)

Tacoma Pierce County Health Department (TPCHD)

- Solid Waste Permit(s)
- Septic Decommissioning
- Well Decommissioning

Washington State Department of Fish and Wildlife

- Hydraulic Project Approval (HPA)

Washington State Department of Labor and Industries

- Electrical Permits

Federal Emergency Management Agency (FEMA)

- Conditional Letter of Map Revision Based on Fill (CLOMR-F)
- Letter of Map Revisions Based on Fill (LOMR-F)

US Army Corps of Engineers

- Section 404(b)(1) of the Clean Water Act (CWA)

Authors and Principal Contributors

Authors

- AHBL, Inc.
- City of Edgewood

Contributors

- Barghausen Consulting Engineers
- Cultural Resource Consultants, LLC
- Herrera Environmental Consultants
- HWA GeoSciences, Inc.
- Johnson Economics, LLC
- Landau Associates, Inc.
- Raedeke Associates, Inc.
- SSA Acoustics
- Soundview Consultants
- Terra Associates, Inc.
- Transpo Group

Date of Draft Environmental Impact Statement Issuance

July 18, 2025

Draft Environmental Impact Statement Comments Deadline

September 1, 2025

Public Comment on the Draft EIS

- Email: comdev@cityofedgewood.org;
- Phone: call (253) 300-5354 and leave a voicemail; or
- Mail or drop-off:
  City of Edgewood
  Attn: Planning Division
  10440 Dom Calata Way East
  Edgewood, WA 98372

Document Availability

The Draft EIS has been distributed to the agencies, organizations, and individuals listed in Appendix B. The Draft EIS and appendices are available for review electronically on the City's website at https://cityofedgewood.org/387/Prologis-Industrial-Park-Edgewood. The Draft EIS is also available for review upon request at Edgewood City Hall, 10440 Dom Calata Way East, Edgewood, WA 98372 between 8:30 a.m. and 5:00 p.m., Monday through Friday.

Date of Final Action

A Final EIS is estimated to be completed in Winter 2025.

Location of Background Materials

Background information and all documents incorporated by reference in this Draft EIS are available for review on the City's website at https://cityofedgewood.org/387/Prologis-Industrial-Park-Edgewood and in person at Edgewood City Hall.

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Acronyms and Abbreviations

6PPD-q	6PPD-quinone
Applicant	Prologis, Inc.
AMSL	Above Mean Sea Level
BFE	Base Flood Elevations
BMPs	Best Management Practices
CARA	Critical Aquifer Recharge Area
City	City of Edgewood
CLOMR-F	Conditional Letter of Map Revision based on Fill
CPT	Cone Penetration Test
CWA	Clean Water Act
DAHP	Department of Archaeology and Historic Preservation
dB	Decibels
dBA	A-weighted decibels
DEIS	Draft Environmental Impact Statement
DDI	Diverging Diamond Interchange
DNR	Department of Natural Resources
DPS	Distinct Population Segment
DPU	Distinct Population Unit
DRASTIC	Depth, Recharge, Aquifer, Soil, Topography, Impact, and Conductivity
DS	Determination of Significance
Ecology	Washington Department of Ecology
EDNA	Environmental Designation for Noise Abatement
EIS	Environmental Impact Statement

EMC	Edgewood Municipal Code
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESAL	Equivalent Single-Axle Loads
ESU	Evolutionarily Significant Unit
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FWHCA	Fish and Wildlife Habitat Conservation Area
FWD	Falling Weight Deflectometer
GIS	Geographic Information System
GMA	Growth Management Act
GULD	General Use Level Designation
HPA	Hydraulic Project Approval
ISGP	Industrial Stormwater General Permit
ITE	Institute of Transportation Engineers
LID	Low Impact Development
LOMR-F	Letter of Map Revisions based on Fill
LOS	Level of Service
LUC	Land Use Code
MIC	Manufacturing/Industrial Center
MIDP	Monitoring and Inadvertent Discovery Plan
NMFS	National Marine Fisheries Service
NOA	Notice of Application
NOAA	National Oceanic Atmospheric Administration

NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PHS	Priority Habitat and Species
PMC	Puyallup Municipal Code
Prologis	Prologis, Limited Partnership
PSE	Puget Sound Energy
PSRC	Puget Sound Regional Council
PVC	Polyvinyl Chloride
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SF	Square Feet
SFHA	Special Flood Hazard Area
SSD	Stopping Sight Distance
SWMP	Stormwater Management Program
TESC	Temporary Erosion and Sediment Control
TIP	Traffic Improvement Plan
TP	Test Pit
TPCHD	Tacoma Pierce County Health Department
TWSC	Two Way Stop Controlled
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife

WDOE	Washington State Department of Ecology
WHR	Washington Heritage Register
WISAARD	Washington Information System for Architectural and Archaeological Records Database
WNHP	Washington Natural Heritage Program
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation

Executive Summary

This section provides a summary of the topics addressed in this Draft EIS as required under Washington Administrative Code (WAC) 197-11-440(4).

Introduction and Background

Prologis, Inc. (hereinafter "Prologis") (the "Applicant") is proposing to develop the project site as a high cube/fulfillment center or an industrial park with warehouse facilities, or a combination of both, depending on market conditions. The proposal does not include specific tenants at this time. The proposal includes up to four (4) new buildings that total up to approximately 986,000 square feet (SF) on approximately 87.7 acres of property across 15 parcels within the City of Edgewood. The project site is located near the southwestern border of the Edgewood city limits near the intersection of Valley Avenue East and 90th Avenue East. Throughout this Draft EIS, the Applicant's proposal will be referred to as the "proposed project." See Chapter 1, Introduction and Background for further details.

All of the parcels on the project site are zoned Industrial, but prior to September 2019, all parcels on the project site were zoned as Single-Family Moderate (SF-3). The majority of the project site was previously used for agricultural production and consisted of several managed agricultural fields, associated buildings and infrastructure, and single-family residences. All previous residential, industrial, and agricultural structures have been demolished and the site is currently vacant.

The project site and its immediate vicinity contain 13 wetlands and three (3) Type F (fish-bearing) streams: Wapato Creek, Simons Creek, and an unnamed Stream X.

Project Objectives

Applicant's Statement of Need

The Applicant provided the following statement of need:

The Puget Sound region population is projected to grow to five (5) million people by 2040. Long-term growth management planning for the region is provided by the Puget Sound Regional Council (PSRC) which covers Snohomish, King, Pierce, and Kitsap counties. Substantial growth within the City of Edgewood has caused available industrial tenancy to be limited, with industrial lands accounting for 0.3 percent of the City's acreage1. Additionally, projected growth for Port of Tacoma operations will necessitate the development of 2.1 to six (6) million square feet of additional industrial space, with proximity to the Port being critical for the efficient movement of goods, reducing congestion and carbon emissions, and providing jobs near housing (Johnson Economics, 2024).

According to the economics study completed by Johnson Economics, planning goals related to the efficient movement of goods require large facilities with easy access to the freeway network, spacious truck courts, and a large number of dock-high doors (Johnson Economics, 2024; Appendix X). Industrial development of these scale requires large, flat sites buffered by non-residential areas, and there is a growing shortage of such land within the Puget Sound region and especially in the Tacoma-Puyallup industrial subarea that meets 1) this criteria, and 2) is not under contract for other development proposals or use. There is also a shortage of such land in close proximity to the Port of Tacoma, which is a

[1] Note: At time of publication of the DEIS, the Industrial Land Use designation represents 3.2 percent of the total city acreage.

key factor in the current proposal based on the need to provide efficient and timely movement and shipment of goods. As such, redevelopment and development of vacant sites within this Tacoma-Puyallup industrial subarea is desired to support the local workforce and regional economy.

The Tacoma-Puyallup industrial subarea examined for the current proposal excludes the City of Lacey and vicinity in Thurston County as this area is located too far (approximately 30 miles, or 40 minutes travel time) from the Port of Tacoma. Trends over the past five (5) to 10 years for larger companies preferring Pierce County locations for several reasons: 1) close proximity access to the Port of Tacoma, specifically the WA-167 and I-5 interchange completion, 2) access and closer proximity to a larger labor pool with lower cost of living requirements, and 3) a majority of industrial employers in South King County show employees are living in Pierce County or Thurston County. The Pierce County workforce has a lower median household income than King County, (approximately $97,000 compared to $122,000 for 2019 through 2023, according to the US Census Bureau (US Census, n.d.) with a lower cost of living. This creates a preferred opportunity for employees, where work becomes available closer to their location, and employers, where labor is more abundant. While public transportation, including limited commuter trains and public buses, may service employees, larger scale public transportation projects such as the Sound Transit Light Rail are still ongoing. As a result, employee commuting often relies heavily on personal vehicles. Long commutes due to distance and/or time spent in traffic, as well as associated costs, are a deterrent to many potential employees, therefore location of a facility in relatively close proximity to the workforce is preferable. Furthermore, while it may not be a factor most employees consider directly in their choice of employment, shorter commutes aid in the overall reduction of carbon emissions. The proposed location of Prologis Park Edgewood is ideally situated in a geographically and economically advantageous location in proximity to a well-established labor pool while simultaneously providing reasonable commutes and family wage jobs.

Currently, the City of Edgewood's economic base in particular is constrained by a lack of industrial land, which represents a mere 0.3 percent [2] of the City's total land area (BCE, 2018). The City of Edgewood has specified the need to increase industrial development while also focusing on environmental goals that will benefit both residents and fish and wildlife (City of Edgewood, 2015). Whether the planned industrial development occurs within the City of Edgewood or neighboring cities, such development will be considered as part of a regional growth focus by complementing existing plans/projects designed to support job growth in manufacturing industrial centers in neighboring communities and regional growth centers on a scale outlined in the PSRC's long-range plan – Vision 2040[3] (BCE, 2018).

Public planning for industrial growth in the area recognizes potential development impacts on the natural environment, including Wapato Creek and other natural areas. The City of Edgewood's 2015 Comprehensive Plan[4] has identified several environmental goals important to both residents and fish and wildlife habitat: 1) Protect and enhance the natural environment for the benefit of current and future generations; 2) Protect and enhance water quality; 3) Protect and enhance air quality, including addressing climate change; 4) Protect and enhance fish and wildlife habitat, and 5) Minimize risks to people, property and the environment posed by geologic and flood hazard areas. The potential restoration and relocation of Wapato Creek (and additional onsite mitigation actions) would create a

[2] Note: At time of publication of the DEIS, the Industrial Land Use designation represents 3.2 percent of the total city acreage.
[3] Note: PSRC has updated VISION 2040 with the publication of VISION 2050 in October 2020.
[4] Note: This plan was recently updated and is now replaced with the 2024 City of Edgewood Comprehensive Plan.

more natural stream channel with a functioning riparian corridor that would provide much improved fish and wildlife habitat and ecological functions, thus meeting these environmental goals.

In addition to the local needs and goals established by the City of Edgewood, Washington State has prioritized and is currently in the process of extending WA-167 to connect to I-5 and the Port in order to improve the Port's supply chain and reduce congestion in the region. Johnson's Economics completed an alternatives analysis (Appendix DD) looking at sites within a geographic area that would have convenient and rapid access to the Port, emphasizing that proximity to the Port is important for reducing congestion, which in turn reduces commute times and improves quality of life for commuters, reduces fuel and labor costs, reduces carbon emissions, and reduces inflation, consistent with state and regional goals (Johnson Economics, 2024). This analysis was limited to areas within ½ mile of the WA-167/I-5 interchange based on correlations between proximity to such interchanges and the time it takes to lease up speculative distribution buildings, and market needs and planning goals. The study looked at conservative and moderate estimates of industry growth rates and existing industrial projects that are under construction, and estimated the need for 2.1 to six (6) million square feet of industrial space within the analysis area. Addressing this need in meaningful way would require a project that can supply industrial space on the order of one (1) million square feet, which translates to approximately 66 acres of developable land; however, for a three-building concept the minimum site size is considered 69 acres, not accounting for roads or parking (Johnson Economics, 2024).

The Applicant specializes in developing industrial parks that consist of contiguous planned industrial areas with two (2) or more single or multi-tenant buildings that serve a wide range of industries. As a developer, the Applicant begins project development prior to tenant identification and operates using a business model of owning, developing, and leasing sites. Strategic sites that provide value to a wide range of industries are critical to the developer industry, and developers rely on several criteria in identifying sites that will result in development that is suitable and valuable to several types of potential tenants. The proposed industrial park is anticipated to employ upwards of 600 people, leading to secondary growth in the nearby city's residential and retail sectors (BCE, 2018).

Applicant's Statement of Purpose

The Applicant provided the following statement of purpose:

Basic Purpose

The basic purpose of this project is to develop a modern, sustainable Class A industrial park to fulfill industrial tenant demand and support economic growth in the region. The basic purpose of this project is not water-dependent, and therefore, does not require location on or adjacent to a special aquatic site.

Overall Purpose

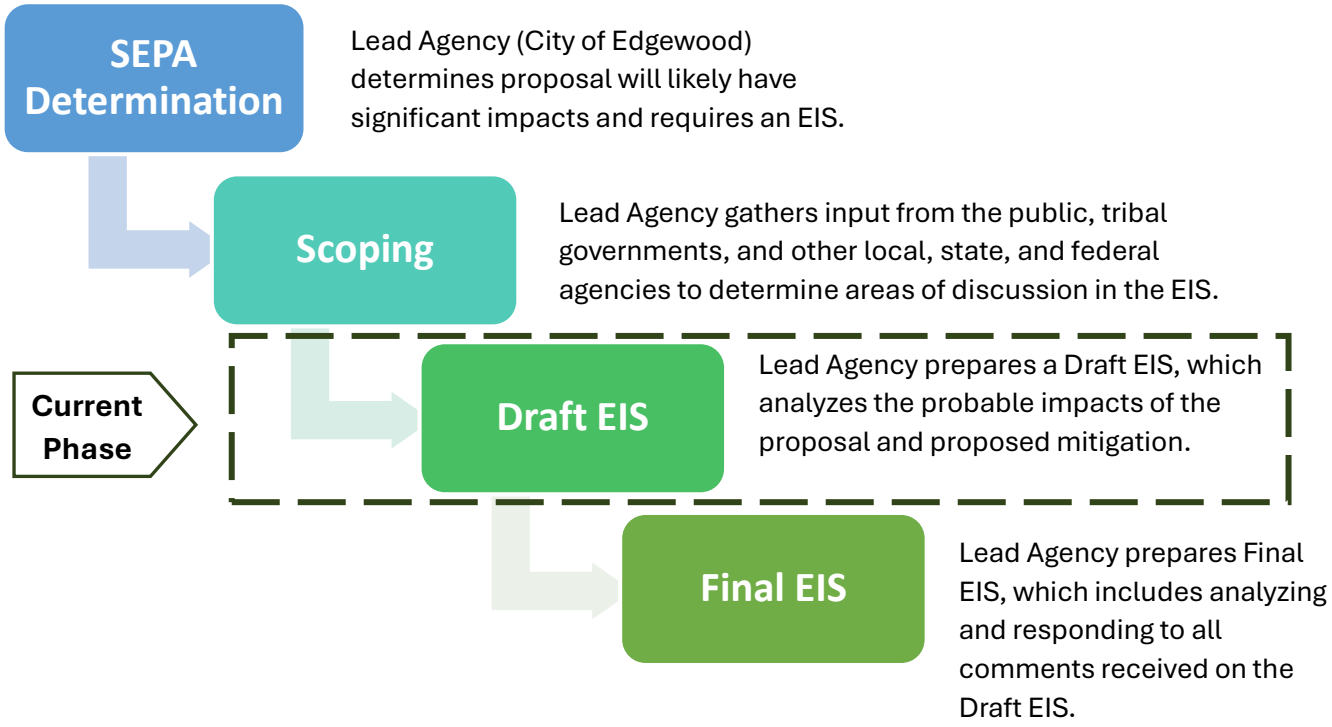
The overall purpose of this project is to develop an industrial park on a site that will meet local, state, and regional needs and goals and market demand where feasible. This purpose has been derived from the Applicant's internal project narrative and analysis in consideration of the zoning change of the site in response to market demand in the area (BCE, 2018) coupled with a regional industrial lands analysis (PSRC, 2015) and an economic study assessing industrial needs in proximity to the Port of Tacoma (Johnson Economics, 2024).

Economic growth within the Puget Sound region has led to development and absorption of most vacant and developable industrial-zoned parcels greater than five (5) acres in King and Pierce counties, and available industrial tenancy is virtually non-existent in the Edgewood/Puyallup/Fife area (BCE, 2018). Due to this identified market demand, the cities of Edgewood, Puyallup, and Fife responded with improvements designed to encourage economic development and improve transportation access which

indirectly support industrial growth. As such, these cities were selected as part of the geographic area to consider alternatives that meet the project need and criteria. More specifically in regard to regional industrial lands identified by the PSRC, this area is included within the Tacoma-Puyallup industrial subarea (PSRC, 2015) and outside of the existing designated MIC (Port of Tacoma). It is important to note that the Tacoma-Puyallup industrial subarea examined for the current proposal excludes the City of Lacey and vicinity in Thurston County as this area is located too far (approximately 30 miles, or 40 minutes travel time) from the Port of Tacoma; proximity to the Port of Tacoma is a key factor in the current proposal based on the need to provide efficient movement of goods. Notably, Johnson Economics has established that sites located within ½ mile of the WA-167/I-5 interchange are the most suitable for meeting marketing needs and planning goals (Johnson Economics, 2024).

Environmental Review Process

The State Environmental Policy Act (SEPA) Environmental Review Process for the EIS begins with a SEPA Determination followed by Scoping, a Draft EIS, and lastly the Final EIS. Details of each step in the process are summarized below.



SEPA Determination

Review of the Applicant's proposal by the City determined the proposed project is likely to have significant adverse impacts on the environment and therefore an EIS is required.

Scoping

On January 22, 2021, the City of Edgewood received a Site Plan Application from Prologis and issued a Notice of Application (NOA) on February 2, 2021, with a public comment period ending February 17, 2021. On September 2, 2021, the City received a Site Plan Application from Bridge Industrial (hereinafter "Bridge") and issued a NOA on September 8, 2021, with a public comment period ending September 22, 2021. On October 4, 2021, the City issued a Determination of Significance (DS) and Scoping Notice for the combined Prologis and Bridge Industrial Park projects, with a comment period ending on November

3, 2021, to assess the cumulative environmental impacts of both proposals based on their similar timing, geography, and project type.

The City of Edgewood initiated the EIS scoping process for the Prologis Industrial Park and Bridge Point Industrial Park by carrying out the following actions:

- On October 4, 2021, the City of Edgewood issued a SEPA DS and Request for Comments on the scope of the EIS. This included notification of a public scoping meeting on October 21, 2021, to provide the public with an opportunity to learn more about the proposals and to comment on the scope of the EIS. The DS/Scoping Notice included a 21-day scoping comment period, ending on November 3, 2021. The DS/Request for Comments is available for review at: www.cityofedgewood.org/387/Prologis-Industrial-Park. The DS/Scoping Notice was distributed via the following methods:
    - Emailed to federal, state, regional, and local agencies, Tribes, and parties of record, and mailed copies to property owners within 300 feet of the project site boundaries;
    - Published in the Washington State Department of Ecology's SEPA Register;
    - Posted on the City of Edgewood website;
    - Published in the Tacoma News Tribune on October 4, 2021; and
    - Physically posted at four (4) publicly visible locations around the project site, with one (1) additional notice posted at Edgewood City Hall.

    The City also scheduled ongoing monthly coordination meetings with the City of Fife, the City of Puyallup, and the Puyallup Tribe of Indians.

    The Scoping Notice identified the following preliminary discussion areas for the EIS:

    - Environment (Earth, Air, Water)
    - Plants and Animals
    - Energy and Natural Resources
    - Historic and Cultural Preservation
    - Transportation
    - Utilities

- On January 7, 2022, Bridge withdrew their Site Plan Application; therefore, their project is no longer included in the EIS. To formally notify the SEPA interested parties, a revised DS/Scoping Notice was issued on April 11, 2022, removing the Bridge proposal from the project scope. The revised DS/Scoping Notice was distributed via the following methods:
    - Emailed copies to federal, state, regional, and local agencies, Tribes, and parties of record;
    - Published on the Washington State Department of Ecology's SEPA Register;
    - Posted on the City of Edgewood website;
    - Published in the Tacoma News Tribune on April 11, 2022; and
    - Physically posted at the same four (4) locations around the project site as the initial Scoping Notice, and one (1) notice posted at Edgewood City Hall.

The revised Scoping Notice identified the following as preliminary discussion areas for the EIS:

- Environment (Earth, Air, Water)
- Plants and Animals
- Energy and Natural Resources
- Noise (addition since the initial Scoping Notice)
- Historic and Cultural Preservation
- Transportation
- Utilities

- On September 1, 2023, the City of Edgewood issued a second revised DS/Scoping Notice documenting clarification provided by the Applicant, indicating a specific land use for high-cube fulfillment center or industrial park with warehouse facilities in up to four (4) buildings. The Applicant provided additional information identifying the specific industrial land use as a high-cube fulfillment center warehouse, however, the proposal does not include a specific tenant at this time. Therefore, both high cube fulfillment center uses and industrial park with warehouse facilities uses are being evaluated for purposes of this EIS. Additional clarifications were also provided, along with updated tax parcel numbers resulting from a lot consolidation and boundary line adjustment under Pierce County Recording No. 202110255002 (see Section 1.2.2).

  The revised DS/Scoping Notice included the following methods of distribution:

  - Emailed copies to federal, state, regional, and local agencies, Tribes, and parties of record;
  - Published on the Washington State Department of Ecology's SEPA Register;
  - Posted on the City of Edgewood website;
  - Published in the Tacoma News Tribune on September 1, 2023; and
  - Physically posted at the same four (4) locations around the site as the two (2) previous Scoping Notices, and one (1) notice posted at Edgewood City Hall.

  The Lead Agency (City of Edgewood) also revised its preliminary discussion areas for the EIS, as follows:

  - Environment (Earth, Air, Water)
  - Plants and Animals
  - Energy and Natural Resources
  - Noise
  - Social Policy Analysis (addition since the previous Scoping Notice)
  - Historic and Cultural Preservation
  - Transportation
  - Utilities
  - Economy (addition since the previous Scoping Notice)
  - Cost-Benefit Analysis (addition since the previous Scoping Notice)

Comments Received

Prior to the EIS scoping period, a total of 16 comment letters were received, including eight (8) letters from agencies, Tribes, and other organizations and eight (8) letters from members of the public. During the EIS scoping period, a total of three (3) additional comment letters were received—one (1) from neighboring residents, one (1) from the Washington Department of Fish and Wildlife (WDFW), and one (1) from East Pierce Fire and Rescue. The scoping process and public comments that were received were further described in the Environmental Impact Statement (EIS) Scoping Report and Summary for Prologis Industrial Park (Appendix A). The key comment topics received during the scoping process were Earth, Surface Water and Groundwater, Plants and Animals, Air Quality/Greenhouse Gas Emissions, Noise, Land

Use, Aesthetics, Cultural Resources, Transportation, Public Services, Economic/Fiscal Impacts, and Utilities.

Draft EIS

The purpose of the Draft EIS is to identify and evaluate the potential significant adverse environmental impacts of the Action Alternatives for site development and compare these to the No Action Alternative. The Draft EIS also includes proposed mitigation measures to minimize identified impacts.

The City of Edgewood has prepared this Draft EIS to meet the SEPA requirements stipulated in the Washington Administrative Code (WAC), chapter 197-111 SEPA Rules and the Revised Code of Washington (RCW), Chapter 43.21C State Environmental Policy. The Draft EIS serves as the means of assessing the environmental impact of the Applicant's proposal and does not approve or deny the Applicant's proposal.

The topic areas covered in the Draft EIS are based on the feedback received during the Scoping Process and allow for an opportunity for further review and discussion of the proposed project by agencies, affected Tribes, and the public.

The City of Edgewood will utilize the Draft EIS to evaluate the proposed project. A comment period of 45 days (WAC 197-11-502(5)(b), 197-11-455(7)) will begin with the issuance of this Draft EIS, concluding September 1, 2025. The Draft EIS distribution list is provided in Appendix B. Comments may be submitted in the following ways:

- Email: comdev@cityofedgewood.org;
- Phone: (253) 300-5354 and leave a voicemail; or
- Mail or drop-off:
  City of Edgewood
  Attn: Planning Division
  10440 Dom Calata Way East
  Edgewood, WA 98372

The City of Edgewood will track all comments received during the comment period and respond to comments as part of the Final EIS.

For more information on the project status and associated documents, visit the project website at: https://cityofedgewood.org/387/Prologis-Industrial-Park-Edgewood.

Final EIS

Following the end of the Draft EIS comment period, a Final EIS will be prepared that may include modifications to the text of the Draft EIS based on the comments received on the Draft EIS. The Final EIS will include responses to all comments received on the Draft EIS.

Alternatives

This Draft EIS evaluates three (3) alternatives, including a No Action Alternative and two (2) action alternatives. The Applicant is proposing two (2) Action Alternatives that meet the proposed project's purpose and objectives outlined above. A full description of each Alternative is provided in Chapter 2, Alternatives.

No Action Alternative

The No Action Alternative represents the most likely future conditions if there is no development of the site. Under the No Action Alternative, none of the proposed project facilities would be constructed.

Action Alternative 1 - Prologis Park Project Area Industrial Development with Wapato Creek Realignment and Restoration

Action Alternative 1 proposes redevelopment of the project site with the construction of three (3) buildings to be used for a high cube/fulfillment center and/or industrial park with warehouse uses. Action Alternative 1 includes 180 truck loading docks, 168 trailer parking stalls, and 720 standard vehicle parking stalls. Additional improvements include associated grading, landscaping, utility improvements, new roadway access, a sewer and watermain extension, and other site improvements necessary for development. Vehicle entry to the site is proposed from a new 65-foot public roadway off Valley Avenue East that would run parallel to the southern boundary of the site.

Once construction is completed, Action Alternative 1 is anticipated to support 1,420 employees. An additional 646 jobs are expected to result from ancillary/indirect economic activities, resulting in a total increase of 2,066 full time equivalent employees.

Action Alternative 1 also includes the realignment of Wapato Creek, and a large-scale wetland and stream mitigation action associated with the realignment and restoration of Wapato Creek and associated wetlands. Action Alternative 1 proposes realignment of Wapato Creek that includes 77,194 SF of direct wetland impact area (76,745 SF of Category II wetland impact and 449 SF of Category IV wetland impact), 3,002 linear feet of direct stream impact, and 99,709 SF of direct wetland and stream buffer impact area. The proposal includes the creation of 252,589 SF of wetland area to mitigate for the direct wetland impacts, for a net wetland increase of 152,880 SF. In addition, the project will restore 178,123 SF of wetland and stream buffer and create 16,823 SF of wetland and stream buffer.

Action Alternative 2 - Prologis Park Project Area Industrial Development with no Wapato Creek Realignment and Restoration

Action Alternative 2 proposes redevelopment of the project site with the construction of four (4) buildings to be used for a high cube/fulfillment center and/or industrial park with warehouse uses. Action Alternative 2 includes the addition of 168 truck loading docks, 145 trailer parking stalls, and 750 standard vehicle parking stalls. Additional improvements include associated grading, landscaping, utility improvements, new roadway access, sewer and watermain extension, and other site improvements necessary for development of warehouse buildings. Vehicle entry to the site is proposed from a new 65-foot public roadway off Valley Avenue East that would cross through the site, between the proposed warehouses.

Once construction is completed, Action Alternative 2 is anticipated to support 1,287 employees. An additional 585 jobs are expected to result from associated ancillary indirect impacts, resulting in a total impact of 1,872 full time equivalent employees.

Realignment of Wapato Creek is not included in this Action Alternative and therefore no enhancements to Wapato Creek are proposed. Action Alternative 2 is designed to avoid direct environmental impacts to onsite critical areas by utilizing all developable areas onsite upland from these areas, primarily between Wapato Creek and Simons Creek. Avoidance of all impacts, however, is not possible due to extent and location of several onsite wetlands, a straightened stream, and associated buffers that bisect the majority of the project site.

Summary of Environmental Impacts and Mitigation Measures

This section highlights the potential environmental impacts, mitigation measures, and significant impact determination for each of the topic areas for the No Action Alternative and both Action Alternatives analyzed in this DEIS. This summary is not intended to be a substitute for the complete discussion of each environmental element that is further discussed throughout this DEIS. The following topic areas of this DEIS are discussed below.

Earth	Plants and Animals	Transportation
Cultural Resources	Noise	Public Services and Utilities
Surface Water	Land Use	
Ground Water	Economic and Social Policy	

Chapter 3 - Earth		
	Impacts	**Mitigation Measures Proposed**
No Action Alternative	***No significant adverse impacts.***	None proposed.
Both Action Alternatives	*Geological* • **Increased runoff and onsite erosion** - May lead to increased destabilization of existing steep slopes. • **Increased risk of slope failures** - Due to fill material adjacent to steeps slopes. • **Periodic shallow instability or sloughing** - Due to the construction of five (5) stormwater detention ponds. • **Potential soil liquefaction and lateral spreading** - From a seismic event, as the Washington State Department of Natural Resources (DNR) rates the site's liquefaction susceptibility as 'High.' *Soils Impacts* • **Disturbance to native soils.**	• Compliance with regulations in applicable sections of Edgewood Municipal Code (EMC) including: - Title 13 Surface Water - Title 14 Critical Areas - Title 15 Building and Construction • Raising floor grades with structural fill and permanent subgrade drainage. • Temporary dewatering measures to lower the groundwater table. • Site earthwork and grading should occur during the late summer to early fall months of the year. • Surcharging should be accomplished by raising grades to the planned floor elevations, placing an additional four (4) foot surcharge fill above the floor elevation, and then allowing settlement to occur under this load before building construction is initiated. • Cement amendment or excavation and replacement with imported gravel base material in paved areas to mitigate weak subgrade soils. o Dry native soils by aeration during the normally dry summer season to facilitate compaction as structural fill. Alternatively, stabilizing the moisture in native soil with cement or lime can be considered. During the winter

		season, the contractor should import clean granular material for use as structural fill and backfill. o A 3:1 gradient for interior side slopes of the stormwater ponds shall be utilized. Additionally, exterior berm slopes and interior slopes above the maximum water surface levels shall have a slope no steeper than 2:1. All finished slope faces shall be compacted and vegetated. o Perimeter foundation drains shall be installed adjacent to the perimeter foundations in the loading dock areas. i. Foundation drains should be tightlined separately from the roof drains with a gradient sufficient to promote positive flow to a controlled point of approved discharge. All drains should be provided with cleanouts at easily accessible locations. o Prior to placing fill or constructing footings, all exposed bearing surfaces should be observed to verify soil conditions are as expected and suitable for support of new fill or building elements.
Significant Impact Determination		
Environmental review has determined that adverse impacts to the earth environment that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures.		
Chapter 4 – Cultural Resources		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.***	None proposed.
Both Action Alternatives	**Impact to Archaeological Site** - Ground disturbing activities associated with the development will impact the archaeological site identified during field studies due to its location within areas proposed for development.	Development of a Monitoring and Inadvertent Discovery Plan (MIDP) will be required prior to any ground disturbing activities in the vicinity of the identified archaeological site.
Significant Impact Determination		
Environmental review has determined that adverse impacts to cultural resources that may arise during construction and operation of the project under both of the Action Alternatives are deemed to		

be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures.

Chapter 5 – Surface Water		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.*** • Existing low functioning wetland and stream buffer areas would remain. • Current levels of sedimentation and other water quality impacts (unauthorized water withdrawals, litter, etc.) to onsite wetlands and streams would remain. • Stormwater runoff would not be treated and best management practices to control and prevent sedimentation would not occur.	None proposed.
Both Action Alternatives	*Temporary* • **Increases in turbidity** - During construction activities and the rewatering of the new stream channel. *Long-term* • **Change in hydrologic dynamics, increase frequency and severity of flooding, increase in the amount of stormwater runoff into the streams and wetlands, and accelerated channel erosion and streambed substrate disturbance** - Due to increases in impervious surface areas. • **Increase in levels of 6PPD, impacting water quality in the restored riparian corridor** – Due to the increase in human activity and specifically traffic through the site.	• Removal and ongoing maintenance of invasive plant species, planting of native species and a dense vegetation screen, creating an herbaceous understory, retention of water and sediments. • Installing privacy fencing and critical area signage, storing all construction equipment and materials outside of the critical areas and associated buffers, directing exterior lights and excessive noise away from the wetlands and streams wherever possible. • Submittal of a Zero-Rise Analysis at final engineering submittal. • Implement best management practices during all phases of project development and Low Impact Development to address stormwater runoff impacts. • Compliance with EMC Title 14, Critical Areas.
Action Alternative 1	In addition to the impacts listed above under ***Both Action Alternatives***, Action Alternative 1 is anticipated to result in the following impacts: • 77,194 SF (1.77 acres) of wetland fill.	In addition to the mitigation measures listed above under ***Both Action Alternatives***, the following mitigation measures are proposed under Action Alternative 1:

	• 3,002 linear feet of direct impacts.to Wapato Creek and Stream X. • 99,709 SF (2.29 acres) of direct impact to wetlands.	*Wetland Mitigation* • Establishment of approximately 178,526 SF (4.1 acres) of wetland creation along Simons Creek and the relocated portion of Wapato Creek (2,711 linear feet). • Establishment of 255,053 SF (5.86 acres) of non-compensatory wetland creation along Simons and Wapato Creeks. • 38,566 SF of wetland and stream buffer creation along Wapato Creek and Simons Creek (approximately 0.88 acres) and 354,196 SF of perimeter buffer (approximately 8.13 acres). • Restoration of all remaining wetland and stream buffers on the project site (210,796 SF, approximately 4.84 acres). • A new 200-foot riparian corridor for Wapato Creek, providing additional shading and ultimately cooling water temperatures. • A media filter drain will be installed to treat runoff from the adjacent railroad. *Stormwater Mitigation* • Installation of five (5) detention facilities on site. • Compliance with the City of Edgewood Stormwater Management Program (SWMP). • Compliance with the 2024 Ecology Stormwater Management Manual for Western Washington Standards for the purpose of 6PPD and the utilization of Best Available Science. *Turbidity Mitigation* • Dewatering and rewatering in separate sections, reducing the amount of the channel being exposed at a time. *Floodplain Mitigation* • Compensatory flood storage will be provided at a ratio of one to one (1:1) for all work within the 100-year floodplain identified by FEMA.

Action Alternative 2	In addition to the impacts listed above under ***Both Action Alternatives***, Action Alternative 2 is anticipated to result in the following impact: • 404,526 SF (9.29 acres) of direct impacts to wetland and stream buffers.	In addition to the mitigation measures listed above under ***Both Action Alternatives***, the following mitigation measures are proposed under Action Alternative 2: <u>*Wetland Buffer Mitigation*</u> • Buffer creation of approximately 2.40 acres and restoration of approximately 22.72 acres on the project site. • Exceeding the one to one (1:1) required ratio for buffer impacts. • Removing and performing ongoing control and maintenance of non-native invasive species and planting native species. • Monitoring of the bottomless crossing installation and replacement for a five-year period as required by EMC 14.20.090(B)(4). • The bottomless crossing will be designed to meet or exceed the WDFW stream simulation design criteria per the 2013 Water Crossing Design Guidelines. <u>*Stormwater Mitigation*</u> • Match the natural drainage pattern to the extent feasible. Enhanced treatment will be provided through stormwater treatment wetlands and through an Ecology approved engineered treatment device.
Significant Impact Determination		
Environmental review determined that there could be **significant adverse impacts** to surface water under both Action Alternatives that might not be minimized, reduced, or eliminated with implementation of mitigation measures.		

Chapter 6 - Groundwater		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.***	None proposed.
Both Action Alternatives	<u>*Groundwater Storage Impacts*</u> **Periodic risk of shallow instability or sloughing** - Due to the fluctuating stored water levels of the stormwater detention pond which may impact soils that are above the dead storage elevation on the interior slopes within the sides of the stormwater ponds.	• Raising floor grades with structural fill and providing permanent subgrade drainage. • Temporary dewatering measures. • Site earthwork and grading should occur when groundwater levels are lowest (late summer or early fall).
Significant Impact Determination		
Environmental review has determined that any adverse impacts to groundwater that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures.		
Chapter 7 – Plants and Animals		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts to wildlife or vegetation.***	None proposed.
Both Action Alternatives	<u>*Impacts to wildlife*</u> *Temporary* • **Avoidance of nearby habitats, abandonment of nest sites, reduced breeding success, and increased mortality** - Due to increased noise, potential for erosion, and potential for vegetation disturbance which may temporarily disrupt animal behavior. • **Temporary increase in terrestrial noise levels above ambient levels** - Due to construction activities. *Long-Term* • **Effects on fish species ranging from avoidance to mortality** - Potential changes in hydrologic	• Mitigation measures for long-term impacts to critical areas shall be determined in accordance with the US Army Corps of Engineers mitigation hierarchy. • Enhanced water quality treatment for all pavement in accordance with the 2021 Pierce County Stormwater Management and Site Development Manual. • Compliance with EMC Title 14, Critical Areas.

	dynamics through decreases in infiltration and evapotranspiration and corresponding increases in surface water runoff. • **Increased frequency and severity of flooding and accelerated channel erosion and streambed substrate disturbance** - Due to increased impervious surface areas. • **Adverse effects to Steelhead trout and Chinook salmon** - Due to increases in the amount of 6PPD discharged or filtered into the restored riparian corridor from increases in traffic through the site. Sublethal exposures may potentially result in neurological damage in surviving juveniles and adult salmonids. • **Adverse effects to Puget Sound Steelhead trout critical habitat** - Surface stormwater discharge leaving the site may contain levels of 6PPD that can be detrimental to salmonid and the treated stormwater.	
Action Alternative 1	In addition to the impacts listed above under ***Both Action Alternatives***, Action Alternative 1 is anticipated to result in the following impacts: <u>*Wildlife impacts*</u> *Temporary:* • **Disturbance and mortality of individual fish species** - Due to dewatering activities associated with relocation and fill of Wapato Creek and Stream X. • **Increases in turbidity** - Due to construction and the rewatering of the new stream channel.	In addition to the mitigation measures listed above under ***Both Action Alternatives***, the following mitigation measures are proposed under Action Alternative 1: <u>*Stream Mitigation*</u> • A Water Quality Plan and Fish Protection Plan for the Wapato Creek relocation. • Stream relocation activities will occur during low stream flow conditions and fish capture and relocation efforts will be completed according to the Fish Protection Plan. • Biodegradable coir logs will be installed in the new stream to help capture sediments flowing downstream.

	• **Immediate loss of aquatic habitat** - Due to the fill of existing stream and wetland habitat.
	
	Long-term:
	• **Removal of habitat corridors and loss of habitat for waterfowl concentrations.**
	• **Animal movement patterns** - Increased fragmentation of native habitat, together with the expected increased human activity may cause animals to avoid these areas.
	
	<u>*Vegetation Impacts:*</u>
	• **Removal of 378 trees (including two (2) hazardous trees)** - Due to their location within the proposed development area.
		• The relocation of Wapato Creek and Stream X will result in approximately 2,900 linear feet of stream creation.
		• Stream restoration that will provide improvements in stream ecological functions as compared to the existing degraded stream channel, which will provide long-term benefits for salmonids and other fish including:
		  ○ Cool and clean water
		  ○ Stream shading
		  ○ Stormwater filtration
		  ○ Wood recruitment
		  ○ Decreased streambank erosion
		• Removal of nine (9) undersized culverts and installation of two (2) bottomless stream crossings may provide more accessible passage to the upstream reach of both Wapato Creek and Simons Creek.
		
		<u>*Wetland Creation Mitigation*</u>
		• Creation of approximately 252,600 SF (5.8 acres) of wetlands.
		• Treatment and removal of invasive vegetation, planting with native trees and shrubs, and an establishment of an herbaceous understory to allow the establishment of wetland areas, retention of water and sediments, and improvement in water quality.
		• Non-compensatory wetland creation, wetland enhancement, buffer restoration, and buffer creation are proposed.
		
		<u>*Vegetation Mitigation*</u>
		• A total of 838 trees are proposed to be replaced onsite, within the interior lot and buffer areas in accordance with EMC 18.90.180(C)(4).

Action Alternative 2	In addition to the impacts listed above under ***Both Action Alternatives***, Action Alternative 2 is anticipated to result in the following impacts: <u>*Wildlife impacts*</u> *Temporary:* • **Increases in turbidity** - Due to construction activities	In addition to the mitigation measures listed above under ***Both Action Alternatives***, the following mitigation measures are proposed under Action Alternative 2: <u>*Construction Mitigation*</u> • Construction activities will occur in the summer, during low-flow conditions that are expected to remain at low flow for the duration of the project construction.

	and buffer restorations. *Long term:* • **Waterfowl avoidance** - Due to wetland buffer impacts, increased traffic, and increased human activity resulting from the development. *Vegetation Impacts:* • **Removal of 207 trees (including two (2) hazardous trees)** - Due to their location within the proposed development area.	• Dewatering measures will occur in small sections of the stream at a time, reducing disturbed sediments exposed to flow into smaller areas. *Stream and Wetland Buffer Mitigation* • Approximately 105,500 SF (2.4 acres) of buffer creation and approximately 990,000 SF (22.7 acres) of buffer restoration. *Vegetation Mitigation* • A total of 444 trees are proposed to be replaced onsite, within the interior lot and buffer areas, in accordance with EMC 18.90.180(C)(4).
Significant Impact Determination		
Environmental review determined that there would be **significant adverse impacts** to Puget Sound Steelhead trout and Puget Sound Chinook salmon under both Action Alternatives that might not be minimized, reduced, or eliminated with implementation of mitigation measures. Environmental review determined that adverse impacts to vegetation that may arise during implementation of either of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures.		
Chapter 8 – Noise		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.***	None proposed.
Both Action Alternatives	*Construction Impacts* • **Temporary noise associated with construction.** *Operational Impacts* • **Noise level exceeding nighttime code limits** - In limited instances, noise levels from the project site are predicted to exceed the nighttime code limits during nighttime operations at the nearest Class A receiving properties. Truck idling noise is the primary source exceeding the limit, in addition to some contribution from truck transit in the LUC 130 scenario.	*During construction* • Construction activities may only occur between the hours of 7:00 am and 10:00 pm, or as otherwise authorized by the Edgewood Municipal Code. *During operations* • **Truck Transit** - Noise barriers will be provided between the loading dock and trailer stall areas and receiving properties. The noise barrier shall be constructed with a solid material that has a surface mass of at least 2.5 lbs/sq ft. • **Nighttime Idling** - Where nighttime idling is anticipated to occur, additional mitigation will be necessary to meet the code limits. A taller, 12-foot noise barrier wall will be utilized to mitigate noise impacts.

Significant Impact Determination		
This environmental review determined that any adverse impacts related to noise that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures.		
Chapter 9 – Land Use		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.***	None proposed.
Both Action Alternatives	***No significant adverse impacts.***	None proposed.
Significant Impact Determination		
Environmental review determined that there would be **no significant adverse impacts** to land use within the vicinity of the project site by either of the Action Alternatives.		
Chapter 10 – Economic and Social Policy		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.***	None proposed.
Both Action Alternatives	***No significant adverse impacts.***	None proposed.
Significant Impact Determination		
Environmental review determined that there would be **no significant adverse impacts** to economic and social policies within the vicinity of the project site by either of the Action Alternatives.		
Chapter 11 – Transportation		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.*** • *Freeman Road East/North Levee Road East* - Operates below acceptable level of service (LOS) standard under the 2026 conditions during the weekday AM and PM peak hours. • *Meridian Avenue North (SR 161)/North Levee Road East* - Operates below acceptable LOS standard under the 2026 conditions during the weekday AM and PM peak hours.	• *Meridian Avenue North (SR 161)/North Levee Road East* - No mitigation is proposed. However, with the planned SR 167 Stage 2 project, this intersection is integrated as part of interchange revision and is eliminated under 2030 conditions.

Both Action Alternatives	• *Meridian Avenue North (SR 161)/SR 167 Ramps* - This intersection is projected to operate below acceptable LOS standard in 2026 and 2030 during the AM peak hour. • *42nd Street Court East/Valley Avenue* - The site access intersection is projected to operate below acceptable LOS standard for both the AM and PM peak hours. • *Freeman Road East/Levee Road North* - Operates below acceptable LOS standard in current and 2026 conditions for the PM peak hour and improve to an acceptable LOS standard in the 2030 conditions. • *Meridian Avenue North (SR 161)/North Levee Road East* - Operates below acceptable LOS standard under the 2026 conditions during the weekday AM and PM peak hours.	The following mitigation measures are proposed assuming the SR 167 Stage 2 design is complete by 2030: • *Meridian Avenue North (SR 161)/SR 167 Ramps* - The project will be limited to development that does not generate more than 553 AM peak hour trips. • *42nd Street Court East/Valley Avenue East (site access)* - The addition of a traffic signal which would include a southbound left turn lane and a shared left/right turn lane, improving operations to LOS C or better under the Action Alternatives. • *Freeman Road East/Levee Road North* - The addition of an all-way stop at this location, which would allow the intersection to operate acceptably at LOS D under both Action Alternatives. • *Meridian Avenue North/North Levee Road East* - No mitigation is proposed; however, this intersection is eliminated by being incorporated into the adjacent SR 167 interchange in the 2030 conditions.
Action Alternative 1	In addition to the impacts listed above under ***Both Action Alternatives***, Action Alternative 1 is anticipated to result in the following impact: • *7th Street Northwest/Valley Avenue Northwest* - This intersection is projected to operate below acceptable LOS standard for Action Alternative 1 for the AM peak hour in 2026.	In addition to the mitigation measures listed above for ***Both Action Alternatives***, the following mitigation measure is proposed under Action Alternative 1: • *7th Street Northwest/Valley Avenue Northwest* - In 2026 with the limitation on trip generation described above under ***Both Action Alternatives*** this intersection will operate at acceptable LOS standards in the AM and PM peak hour.
Significant Impact Determination		
Environmental review has determined that any adverse impacts to transportation that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures.		

Chapter 12 – Public Services and Utilities		
	Impacts	**Mitigation**
No Action Alternative	***No significant adverse impacts.***	None proposed.

Both Action Alternatives	*Electricity and Natural Gas*
	• **Capacity in service area** - Potential impacts to Puget Sound Energy's overall capacity in the service area unless service upgrades are made to accommodate the increased demand.
	
	Water
	• **Increase in demand for water** - Requires extension of the City of Fife water main through the City of Puyallup right-of-way to the project site.
	
	Sewer
	• **Increase in demand for sanitary sewer.**
		Electricity and Natural Gas
		• Required electricity and gas improvements will be identified by PSE, including:
		  ○ Shifting existing loads to other substations in the area
		  ○ Feeder extension
		  ○ Pad mount switch
		  ○ Updating the RS-2750 that serves the area
		  ○ An approximately 2,500 feet main extension from the existing 8-inch IP main on Freeman Road East
		Water
		• Obtain all necessary water connection permits/approvals from the City of Fife.
		• Contribute a proportionate share to future upgrades of the 15-inch diameter gravity line project, which will increase conveyance capacity.
		
		Sewer
		• Sanitary sewer services will be provided through an Interlocal Agreement between the cities of Edgewood and Puyallup.

Significant Impact Determination		
Environmental review has determined that any adverse impacts to public services and utilities that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures.		

1. Introduction and Background

This chapter provides an introduction and background to the Draft Environmental Impact Statement (EIS) for the Prologis Park Edgewood proposal. This Draft EIS for Prologis Park Edgewood has been prepared by AHBL, Inc. for the City of Edgewood (Lead Agency) ("City").

1.1 Introduction

Prologis, Inc. (hereinafter "Prologis") (the "Applicant") is proposing to develop the project site as a high cube/fulfillment center or an industrial park with warehouse facilities, or a combination of both. The proposal includes up to four (4) new buildings that total up to approximately 986,000 square feet (SF) on approximately 87.7 acres of property within the City of Edgewood. The proposed project is spread across 15 parcels on the southwestern border of the Edgewood city limits near the intersection of Valley Avenue East and 90th Avenue East. The proposal includes truck docks, trailer parking, vehicle parking, landscaping, and utilities, as well as off-site improvements, but does not include specific tenants at this time. The proposed project could include either high cube/fulfillment center or industrial park users, or a combination of both, depending on market conditions. Throughout this Draft EIS, the Applicant's proposal will be referred to as the "proposed project."

1.2 Background

1.2.1 Site Location

The project site consists of an approximately 87.7-acre site located at 4309, 4321, 4119, 4211, 4223, 4120, 3926, and 4411 90th Avenue East; 9007, 9019, and 9105 43rd Street Court East; 3907 84th Avenue Court East; XXXX 38th Street East; 8719 and XXXX 42nd Street Court East; XXXX 40th Street East; and XXXX Valley Avenue East in the City of Edgewood, Washington. The project site consists of 15 parcels situated in the Northeast Quarter of Section 17 and the Southwest Quarter of Section 16, Township 20 North, Range 04 East, W.M. The following are the project site parcel numbers:

- 042016-3003
- 042016-3023
- 042016-3026
- 042016-3047
- 042016-3051
- 042016-3052
- 042016-3055
- 042016-3074
- 042016-3076
- 042016-7703
- 042016-7704
- 042016-7705
- 042016-7706
- 042017-5004
- 042017-5015

The project site and immediate vicinity contains 13 wetlands and three (3) Type F (fish-bearing) streams: Wapato Creek, Simons Creek, and an unnamed Stream X. The project site is bounded to the northwest by Cherrywood Mobile Manor, to the north by segments of Simons Creek and 40th Street East, to the east by farmland and residences, to the south by the Union Pacific Railroad tracks and Valley Avenue East, to the southwest by a segment of Wapato Creek and Creekside Apartments, and to the west by residences along 84th Avenue Court East. See ***Figure 1.1*** and ***Figure 1.2***, which illustrate the project site parcel numbers, and vicinity.

Figure 1.1: Parcel Map

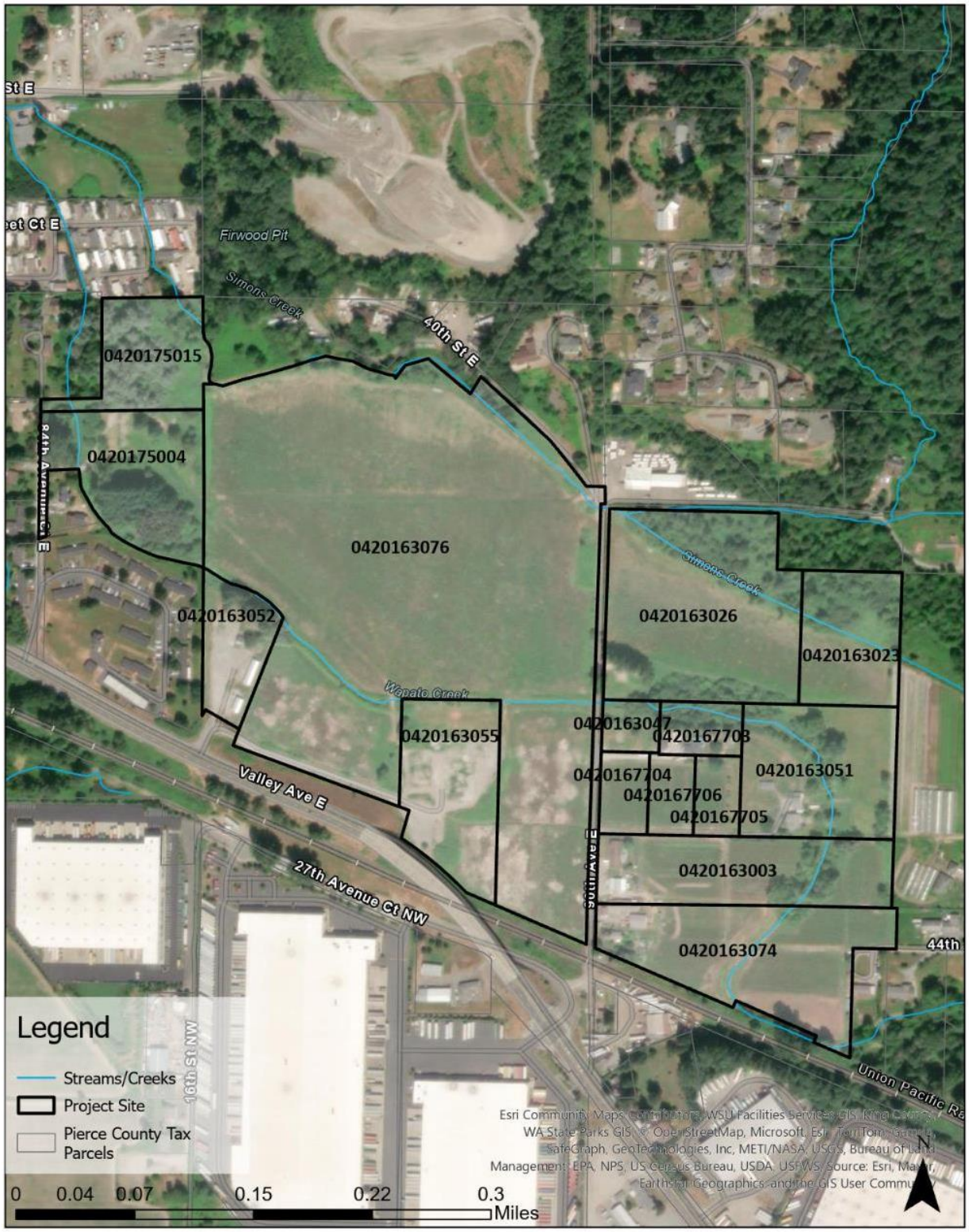
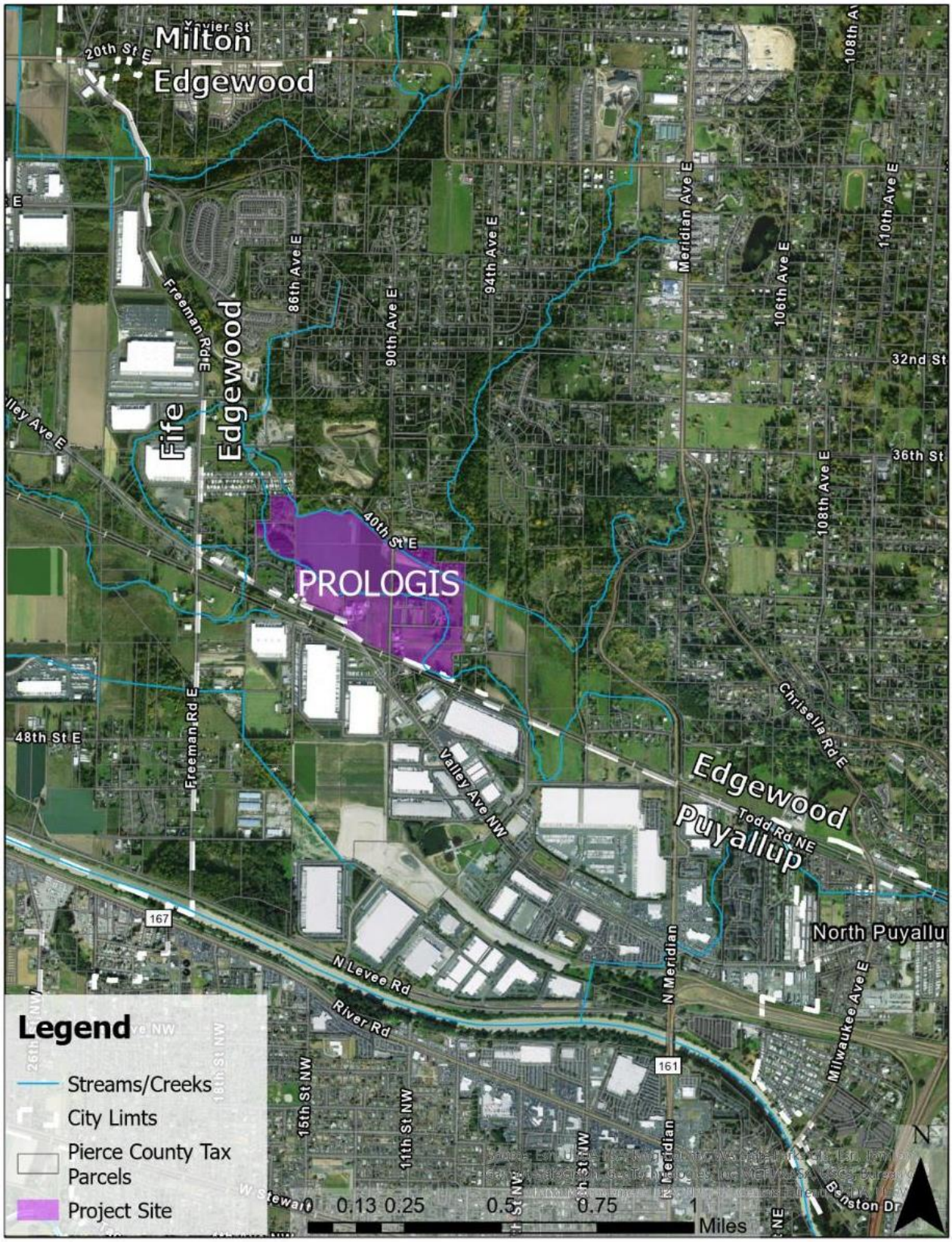


Figure 1.2: Vicinity Map



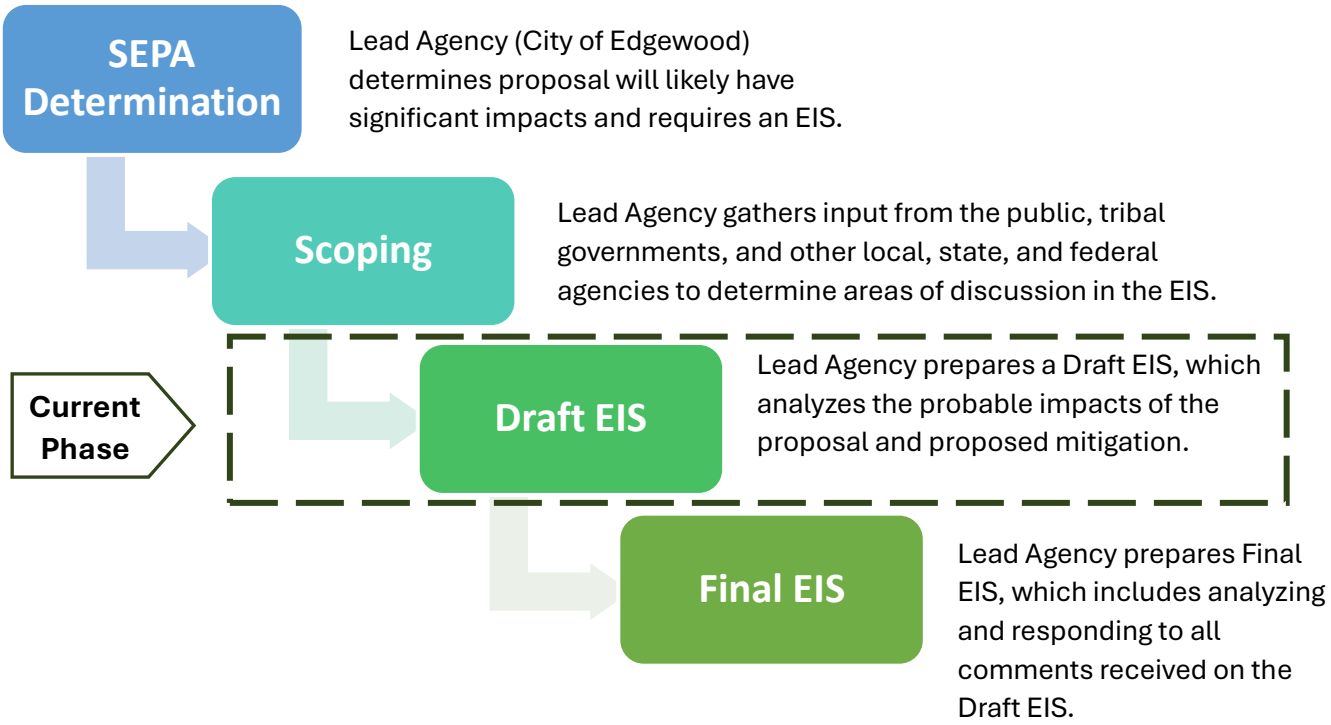
1.2.2 Site History

Prior to September 2019, all parcels on the project site were zoned as Single-Family Moderate (SF-3). Below is a brief overview of the Comprehensive Plan Amendment and rezoning applications related to the proposed project.

- On December 27, 2017, the City received a Comprehensive Plan Amendment application proposing to redesignate and rezone 11 Single-Family Moderate (SF-3) parcels to Industrial (I).
- On September 10, 2019, the Edgewood City Council passed Ordinance No. 19-0557 for the rezoning of 11 Pierce County parcels: Parcel Nos. 0420175005, 0420175004, 0420166003, 0420162700, 0420163054, 0420163052, 0420163702, 0420163055, 0420163026, 0420163047, and 0420163023.
- On February 1, 2021, Prologis, Inc. submitted a rezone application to change the zoning designation for seven (7) parcels located at 3311 90th Avenue East, Edgewood.
- On April 13, 2021, the Edgewood City Council passed Ordinance No. 21-0605 for the rezoning of seven (7) Pierce County parcels: Parcel Nos. 0420163074, 0420163003, 0420163051, 0420167703, 0420167704, 0420167705, and 0420167706 from Single-Family Moderate (SF-3) to Industrial (I).
- On April 30, 2021, the Pierce County Assessor – Treasurer approved a Lot Combination to restore parcels originally segregated for tax purposes, combining Pierce County Parcel Nos. 0420175005 and 0420166003 into Parcel No. 0420175015 (Auditor's Seg No. 2021-0430).
- On October 6, 2021, the City of Edgewood approved a boundary line adjustment that combined Pierce County Parcel Nos. 0420162700, 0420162010, 0420163702, and 0420163054 and created Parcel No. 0420163076 (City File No. 21-1144, Auditor's Fee No. 2021-10-25-5002).

At the time of application, the project site is vacant land.

1.3 SEPA Environmental Review Process



The State Environmental Policy Act (SEPA) Environmental Review Process for the EIS begins with a SEPA Determination followed by Scoping, a Draft EIS, and lastly the Final EIS. Details of each step in the process are summarized in the following sections.

1.3.1 SEPA Determination

Review of the Applicant's proposal by the City determined the proposed project is likely to have significant adverse impacts on the environment and therefore an EIS is required.

1.3.2 Scoping

On January 22, 2021, the City of Edgewood received a Site Plan Application from Prologis and issued a Notice of Application (NOA) on February 2, 2021, with a public comment period ending February 17, 2021. On September 2, 2021, the City received a Site Plan Application from Bridge Industrial (hereinafter "Bridge") and issued a NOA on September 8, 2021, with a public comment period ending September 22, 2021. On October 4, 2021, the City issued a Determination of Significance (DS) and Scoping Notice for the combined Prologis and Bridge Industrial Park projects, with a comment period ending on November 3, 2021, to assess the cumulative environmental impacts of both proposals based on their similar timing, geography, and project type.

The City of Edgewood initiated the EIS scoping process for the Prologis Industrial Park and Bridge Point Industrial Park by carrying out the following actions:

- On October 4, 2021, the City of Edgewood issued a SEPA DS and Request for Comments on the scope of the EIS. This included notification of a public scoping meeting on October 21, 2021, to provide the public with an opportunity to learn more about the proposals and to comment on

the scope of the EIS. The DS/Scoping Notice included a 21-day scoping comment period, ending on November 3, 2021. The DS/Request for Comments is available for review at: www.cityofedgewood.org/387/Prologis-Industrial-Park. The DS/Scoping Notice was distributed by the following methods:

- Emailed to federal, state, regional, and local agencies, Tribes, and parties of record, and mailed copies to property owners within 300 feet of the project site boundaries;
- Published in the Washington State Department of Ecology's SEPA Register;
- Posted on the City of Edgewood website;
- Published in the Tacoma News Tribune on October 4, 2021; and
- Physically posted at four (4) publicly visible locations around the project site, with one (1) additional notice posted at Edgewood City Hall.

The City also scheduled ongoing monthly coordination meetings with City of Fife, City of Puyallup, and the Puyallup Tribe of Indians.

The Scoping Notice identified the following preliminary discussion areas for the EIS:

- Environment (Earth, Air, Water)
- Plants and Animals
- Energy and Natural Resources
- Historic and Cultural Preservation
- Transportation
- Utilities

- On January 7, 2022, Bridge withdrew their Site Plan Application; therefore, their project is no longer included in the EIS. To formally notify the SEPA interested parties, a revised DS/Scoping Notice was issued on April 11, 2022, removing the Bridge proposal from the project scope. The revised DS/Scoping Notice included the following methods of distribution:
  - Emailed copies to federal, state, regional, and local agencies, Tribes, and parties of record;
  - Published on the Washington State Department of Ecology's SEPA Register;
  - Posted on the City of Edgewood website;
  - Published in the Tacoma News Tribune on April 11, 2022; and
  - Physically posted at the same four (4) locations around the project site as the initial Scoping Notice, and one (1) notice posted at Edgewood City Hall.

  The revised Scoping Notice identified the following as preliminary areas for discussion in the EIS:

  - Environment (Earth, Air, Water)
  - Plants and Animals
  - Energy and Natural Resources
  - Noise (addition since the initial Scoping Notice)
  - Historic and Cultural Preservation
  - Transportation
  - Utilities

- On September 1, 2023, the City of Edgewood issued a second revised DS/Scoping Notice documenting clarification provided by the Applicant, indicating a specific land use for high-cube fulfillment center or industrial park with warehouse facilities in up to four (4) buildings. The

Applicant provided additional information identifying the specific industrial land use as a high-cube fulfillment center warehouse, however, the proposal does not include a specific tenant at this time. Therefore, both high cube fulfillment center uses and industrial park with warehouse facilities uses are being evaluated for purposes of this EIS. Additional clarifications were also provided, along with updated tax parcel numbers resulting from a lot consolidation and boundary line adjustment under Pierce County Recording No. 202110255002 (see Section 1.2.2).

The revised DS/Scoping Notice included the following methods of distribution:

- Emailed copies to federal, state, regional, and local agencies, Tribes, and parties of record;
- Published on the Washington State Department of Ecology's SEPA Register;
- Posted on the City of Edgewood website;
- Published in the Tacoma News Tribune on September 1, 2023; and
- Physically posted at the same four (4) locations around the site as the two (2) previous Scoping Notices, and one (1) notice posted at Edgewood City Hall.

The Lead Agency (City of Edgewood) also revised its preliminary list of areas for discussion in the EIS, as follows:

- Environment (Earth, Air, Water)
- Plants and Animals
- Energy and Natural Resources
- Noise
- Social Policy Analysis (addition since the previous Scoping Notice)
- Historic and Cultural Preservation
- Transportation
- Utilities
- Economy (addition since the previous Scoping Notice)
- Cost-Benefit Analysis (addition since the previous Scoping Notice)

Comments Received

Prior to the EIS scoping period, a total of 16 comment letters were received, including eight (8) letters from agencies, Tribes, and other organizations and eight (8) letters from members of the public. During the EIS scoping period, a total of three (3) additional comment letters were received—one (1) from neighboring residents, one (1) from the Washington Department of Fish and Wildlife (WDFW), and one (1) from East Pierce Fire and Rescue. The scoping process and public comments that were received were further described in the Environmental Impact Statement (EIS) Scoping Report and Summary for Prologis Industrial Park (Appendix A). The key comment topics received during the scoping process were Earth, Surface Water and Groundwater, Plants and Animals, Air Quality/Greenhouse Gas Emissions, Noise, Land Use, Aesthetics, Cultural Resources, Transportation, Public Services, Economic/Fiscal Impacts, and Utilities.

1.3.3 Draft EIS

The purpose of the Draft EIS is to identify and evaluate the potential significant adverse environmental impacts of the Action Alternatives for site development and compare these to the No Action Alternative. The Draft EIS also includes proposed mitigation measures to minimize identified impacts.

The City of Edgewood has prepared this Draft EIS to meet the SEPA requirements stipulated in the Washington Administrative Code (WAC), Chapter 197-111 SEPA Rules and the Revised Code of Washington (RCW), Chapter 43.21C State Environmental Policy. The Draft EIS serves as the means of

assessing the environmental impact of the Applicant's proposal and does not approve or deny the Applicant's proposal.

The topic areas covered in the Draft EIS are based on the feedback received during the Scoping Process and allows for an opportunity for further review and discussion of the proposed project by agencies, affected Tribes, and the public.

The City of Edgewood will utilize the Draft EIS to evaluate the proposed project. A comment period of 45 days (WAC 197-11-502(5)(b), 197-11-455(7)) will begin with the issuance of this Draft EIS, concluding September 1, 2025. The Draft EIS distribution list is provided in Appendix B. Comments may be submitted in the following ways:

- Email: comdev@cityofedgewood.org;
- Phone: call (253) 300-5354 and leave a voicemail; or
- Mail or drop-off:
  City of Edgewood
  Attn: Planning Division
  10440 Dom Calata Way East
  Edgewood, WA 98372

The City of Edgewood will track all comments received during the comment period and respond to comments as part of the Final EIS.

For more information on the project status and associated documents, visit the project website at: https://cityofedgewood.org/387/Prologis-Industrial-Park-Edgewood.

1.3.4 Final EIS

Following the end of the Draft EIS comment period, a Final EIS will be prepared that may include modifications to the text of the Draft EIS based on the comments received on the Draft EIS. The Final EIS will include responses to all comments received on the Draft EIS.

1.4 Methodology

1.4.1 Significant Impact Determination

The EIS determines if a proposal is likely to have significant adverse environmental impacts. For this Draft EIS, the environmental impacts have been categorized into the three (3) threshold categories described below:

- **Significant Adverse Impacts:** The potential impacts are irrevocable and there are no known mitigation measures that would significantly avoid, minimize, or reduce the environmental impacts. Mitigation measures may be proposed in order to reduce environmental impacts but may not be able to address all impacts.
- **Mitigated Significant Adverse Impacts:** The potential impacts are substantial and adverse; however, impacts could be minimized, reduced, or eliminated with implementation of mitigation measures.
- **No Significant Adverse Impacts:** There are no identified significant adverse impacts to the environment.

1.4.2 EIS Reports

The impacts and mitigation measures described in this Draft EIS were determined based on analysis of professional reports, studies, and memos submitted by the Applicant, as well as third-party review of these reports initiated by the City. The following reports, studies, and memos were reviewed in the process of preparing this Draft EIS. Throughout this document, the three (3) alternatives are referred to as "No Action Alternative", "Action Alternative 1", and "Action Alternative 2". The order and names of the Action Alternatives and the No Action Alternatives may differ between the reports listed below.

- Addendum to Economic Analysis for Environmental Impact Statement, prepared by Johnson Economics, dated April 4, 2024 (Appendix Y)
- Alternative Site Plan Storm Memo Prologis Park Edgewood, prepared by Barghausen Consulting Engineers, dated September 21, 2022 and revised November 14, 2023 (Appendix R)
- Arborist Report and Tree Retention Plan Alternative 2 (Preferred), prepared by Soundview Consultants, dated August 23, 2024 (Appendix T)
- Arborist Report and Tree Retention Plan Alternative 3, prepared by Soundview Consultants, dated August 23, 2024 (Appendix U)
- Conceptual Mitigation Plan (Alternative 2- Preferred), prepared by Soundview Consultants, dated November 2020, revised January 2025 (Appendix L)
- Conceptual Mitigation Plan (Alternative 3), prepared by Soundview Consultants, dated December 2023, revised August 2024 (Appendix M)
- Cultural Resources Assessment for the Prologis Park Edgewood Project, Edgewood, Pierce County, Washington, prepared by Cultural Resource Consultants LLC, dated May 30, 2021 (Appendix F)
- Transportation Discipline Report (TDR), prepared by Transpo Group, dated July 2025 (Appendix Z)
- Economic Analysis for Environmental Impact Statement Under City of Edgewood Project, prepared by Johnson Economics LLC, dated December 2023 (Appendix X)
- Environmental Impact Statement (EIS) Scoping Report and Summary for Prologis Industrial Park, prepared by City of Edgewood, dated May 19, 2022 (Appendix A)
- FEMA Habitat and Biological Assessment (Alternative 2 – Preferred), prepared by Soundview Consultants, dated January 23, 2025 (Appendix J)
- FEMA Floodplain Habitat Impact Assessment – Alternative 3, prepared by Soundview Consultants, dated January 17, 2025 (Appendix K)
- Geotechnical Report, prepared by Terra Associates, Inc., dated May 28, 2021, and revised June 13, 2025 (Appendix C)
- Hydrologic and Hydraulic Study Prologis Park Edgewood, prepared by Barghausen Consulting Engineers, dated February 9, 2024 (Appendix O)

- Hydrologic and Hydraulic Study Prologis Park Edgewood ALT 3, prepared by Barghausen Consulting Engineers, dated February 9, 2024 (Appendix P)
- Preliminary Stormwater Site Plan dated June 1, 2021, and revised November 14, 2023 (Appendix Q)
- Prologis DEIS Pavement Analysis FWD Testing and Pavement Coring, prepared by HWA GeoSciences Inc., dated March 26, 2024 (Appendix AA)
- Prologis Park Draft EIS Support and Review Memo, prepared by Raedeke Associates, Inc., dated February 23, 2023 (Appendix E)
- Prologis Edgewood Site Noise Study (3 Building Site), prepared by SSA Acoustics, dated January 10, 2025 (Appendix W)
- Prologis Edgewood Site Noise Study (4 Building Site), prepared by SSA Acoustics, dated January 10, 2025 (Appendix V)
- Review of Alternative 3 – Prologis Park Edgewood Project, prepared by Cultural Resources Consultants, LLC, dated September 16, 2022 (Appendix I)
- Revised Alternatives Analysis – Clean Water Act Section 404(B)(1) Documentation, prepared by Soundview Consultants, dated January 2025 (Appendix DD)
- State Environmental Policy Act (SEPA) Checklist dated November 17, 2020, revised June 3, 2021 (Appendix S)
- Steep Slopes memorandum, prepared by Terra Associates, Ince., dated April 7, 2025 (Appendix D)
- Supplemental Cultural Resources Assessment for the Prologis Park Edgewood Project, prepared by Cultural Resource Consultants, LLC, dated March 5, 2024 (Appendix H)
- Supplement Field Investigation for the Prologis Park Edgewood Project, Edgewood, Pierce County, Washington, prepared by Cultural Resources Consultants, LLC, dated March 29, 2022 (Appendix G)
- 6PPD Technical Letter, prepared by Soundview Consultants, LLC, dated June 5, 2025 (Appendix N)

Regulatory and Policy Context

Note that the requirements stated throughout the Chapters of this DEIS were written based on the Edgewood Municipal Code effective April 20, 2021 (Ordinance No. 21-0604). The following permits and approvals may be required for either of the Action Alternatives. Note the permits and approvals are not finalized and additional permits may be required.

City of Edgewood

- SEPA
- Site Plan Review Permit
- Critical Areas Approval
- Tree Retention Plan Approval
- Master Sign Plan Approval
- Boundary Line Adjustment

- Traffic Concurrency Certificate
- Site Development Permit
- Right-of-Way Permit(s)
- Demolition Permits
- Building, Fire, Mechanical, and Plumbing Permits

Washington State Department of Ecology

- Construction Stormwater General Permit
- Ecology Section 401 Individual Water Quality Certification
- National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater General Permit (ISGP)
- Dam Safety Construction Permit – if applicable

City of Fife

- Certificate of Water Availability
- Water Service Boundary Amendment
- Right-of-Way Permit(s)

City of Puyallup

- Letter of Sewer Availability
- Right-of-Way Permit(s)

Tacoma Pierce County Health Department (TPCHD)

- Solid Waste Permit(s)
- Septic Decommissioning
- Well Decommissioning

Washington State Department of Fish and Wildlife

- Hydraulic Project Approval (HPA)

Washington State Department of Labor and Industries

- Electrical Permits

Federal Emergency Management Agency (FEMA)

- Conditional Letter of Map Revision Based on Fill (CLOMR-F)
- Letter of Map Revisions Based on Fill (LOMR-F)

US Army Corps of Engineers

- Section 404(b)(1) of the Clean Water Act (CWA)

2. Alternatives

This chapter describes the proposed project objectives and the project details for the Action Alternatives and the No Action Alternative for the proposed Prologis Park Edgewood. For this Draft EIS, two (2) Action Alternatives were proposed by the Applicant that met the proposed project's purpose and objectives.

2.1 Project Objectives

2.1.1 Applicant's Statement of Need

The Applicant provided the following statement of need:

The Puget Sound region population is projected to grow to five (5) million people by 2040. Long-term growth management planning for the region is provided by the Puget Sound Regional Council (PSRC) which covers Snohomish, King, Pierce, and Kitsap counties. Substantial growth within the City of Edgewood has caused available industrial tenancy to be limited, with industrial lands accounting for 0.3 percent of the City's acreage[5]. Additionally, projected growth for Port of Tacoma operations will necessitate the development of 2.1 to six (6) million square feet of additional industrial space, with proximity to the Port being critical for the efficient movement of goods, reducing congestion and carbon emissions, and providing jobs near housing (Johnson Economics, 2024).

According to the economics study completed by Johnson Economics, planning goals related to the efficient movement of goods require large facilities with easy access to the freeway network, spacious truck courts, and a large number of dock-high doors (Johnson Economics, 2024; Appendix X). Industrial development of these scale requires large, flat sites buffered by non-residential areas, and there is a growing shortage of such land within the Puget Sound region and especially in the Tacoma-Puyallup industrial subarea that meets 1) this criterion, and 2) is not under contract for other development proposals or use. There is also a shortage of such land in close proximity to the Port of Tacoma, which is a key factor in the current proposal based on the need to provide efficient and timely movement and shipment of goods. As such, redevelopment and development of vacant sites within this Tacoma-Puyallup industrial subarea is desired to support the local workforce and regional economy.

The Tacoma-Puyallup industrial subarea examined for the current proposal excludes the City of Lacey and vicinity in Thurston County as this area is located too far (approximately 30 miles, or 40 minutes travel time) from the Port of Tacoma. Trends over the past five (5) to 10 years for larger companies preferring Pierce County locations for several reasons: 1) close proximity access to the Port of Tacoma, specifically the WA-167 and I-5 interchange completion, 2) access and closer proximity to a larger labor pool with lower cost of living requirements, and 3) a majority of industrial employers in South King County show employees are living in Pierce County or Thurston County. The Pierce County workforce has a lower median household income than King County, (approximately $97,000 compared to $122,000 for 2019 through 2023, according to the US Census Bureau (US Census, n.d.) with a lower cost of living. This creates a preferred opportunity for employees, where work becomes available closer to their location, and employers, where labor is more abundant. While public transportation, including limited commuter trains and public buses, may service employees, larger scale public transportation projects such as the

[5] Note: At time of publication of the DEIS, the Industrial Land Use designation represents 3.2 percent of the total city acreage.

Sound Transit Light Rail are still ongoing. As a result, employee commuting often relies heavily on personal vehicles. Long commutes due to distance and/or time spent in traffic, as well as associated costs, are a deterrent to many potential employees, therefore location of a facility in relatively close proximity to the workforce is preferable. Furthermore, while it may not be a factor most employees consider directly in their choice of employment, shorter commutes aid in the overall reduction of carbon emissions. The proposed location of Prologis Park Edgewood is ideally situated in a geographically and economically advantageous location in proximity to a well-established labor pool while simultaneously providing reasonable commutes and family wage jobs.

Currently, the City of Edgewood's economic base in particular is constrained by a lack of industrial land, which represents a mere 0.3 percent[6] of the City's total land area (BCE, 2018). The City of Edgewood has specified the need to increase industrial development while also focusing on environmental goals that will benefit both residents and fish and wildlife (City of Edgewood, 2015). Whether the planned industrial development occurs within the City of Edgewood or neighboring cities, such development will be considered as part of a regional growth focus by complementing existing plans/projects designed to support job growth in manufacturing industrial centers in neighboring communities and regional growth centers on a scale outlined in the PSRC's long-range plan – Vision 2040[7] (BCE, 2018).

Public planning for industrial growth in the area recognizes potential development impacts on the natural environment, including Wapato Creek and other natural areas. The City of Edgewood's 2015 Comprehensive Plan[8] has identified several environmental goals important to both residents and fish and wildlife habitat: 1) Protect and enhance the natural environment for the benefit of current and future generations; 2) Protect and enhance water quality; 3) Protect and enhance air quality, including addressing climate change; 4) Protect and enhance fish and wildlife habitat, and 5) Minimize risks to people, property and the environment posed by geologic and flood hazard areas. The potential restoration and relocation of Wapato Creek (and additional onsite mitigation actions) would create a more natural stream channel with a functioning riparian corridor that would provide much improved fish and wildlife habitat and ecological functions, thus meeting these environmental goals.

In addition to the local needs and goals established by the City of Edgewood, Washington State has prioritized and is currently in the process of extending WA-167 to connect to I-5 and the Port in order to improve the Port's supply chain and reduce congestion in the region. Johnson's Economics completed an alternatives analysis (Appendix DD) looking at sites within a geographic area that would have convenient and rapid access to the Port, emphasizing that proximity to the Port is important for reducing congestion, which in turn reduces commute times and improves quality of life for commuters, reduces fuel and labor costs, reduces carbon emissions, and reduces inflation, consistent with state and regional goals (Johnson Economics, 2024). This analysis was limited to areas within ½ mile of the WA-167/I-5 interchange based on correlations between proximity to such interchanges and the time it takes to lease up speculative distribution buildings, and market needs and planning goals. The study looked at conservative and moderate estimates of industry growth rates and existing industrial projects that are

[6] Note: At time of publication of the DEIS, the Industrial Land Use designation represents 3.2 percent of the total city acreage.
[7] Note: PSRC has updated VISION 2040 with the publication of VISION 2050 in October 2020.
[8] Note: This plan was recently updated and is now replaced with the City of Edgewood Comprehensive Plan 2024-2044.

under construction, and estimated the need for 2.1 to six (6) million square feet of industrial space within the analysis area. Addressing this need in meaningful way would require a project that can supply industrial space on the order of one (1) million square feet, which translates to approximately 66 acres of developable land; however, for a three-building concept the minimum site size is considered 69 acres, not accounting for roads or parking (Johnson Economics, 2024).

The Applicant specializes in developing industrial parks that consist of contiguous planned industrial areas with two (2) or more single or multi-tenant buildings that serve a wide range of industries. As a developer, the Applicant begins project development prior to tenant identification and operates using a business model of owning, developing, and leasing sites. Strategic sites that provide value to a wide range of industries are critical to the developer industry, and developers rely on several criteria in identifying sites that will result in development that is suitable and valuable to several types of potential tenants. The proposed industrial park is anticipated to employ upwards of 600 people, leading to secondary growth in the nearby city's residential and retail sectors (BCE, 2018).

2.1.2 Applicant's Statement of Purpose

The Applicant provided the following statement of purpose:

Basic Purpose

The basic purpose of this project is to develop a modern, sustainable Class A industrial park to fulfill industrial tenant demand and support economic growth in the region. The basic purpose of this project is not water-dependent, and therefore, does not require location on or adjacent to a special aquatic site.

Overall Purpose

The overall purpose of this project is to develop an industrial park on a site that will meet local, state, and regional needs and goals and market demand where feasible. This purpose has been derived from the Applicant's internal project narrative and analysis in consideration of the zoning change of the site in response to market demand in the area (BCE, 2018) coupled with a regional industrial lands analysis (PSRC, 2015) and an economic study assessing industrial needs in proximity to the Port of Tacoma (Johnson Economics, 2024).

Economic growth within the Puget Sound region has led to development and absorption of most vacant and developable industrial-zoned parcels greater than five (5) acres in King and Pierce counties, and available industrial tenancy is virtually non-existent in the Edgewood/Puyallup/Fife area (BCE, 2018). Due to this identified market demand, the cities of Edgewood, Puyallup, and Fife responded with improvements designed to encourage economic development and improve transportation access which indirectly support industrial growth. As such, these cities were selected as part of the geographic area to consider alternatives that meet the project need and criteria. More specifically in regard to regional industrial lands identified by the PSRC, this area is included within the Tacoma-Puyallup industrial subarea (PSRC, 2015) and outside of the existing designated MIC (Port of Tacoma). It is important to note that the Tacoma-Puyallup industrial subarea examined for the current proposal excludes the City of Lacey and vicinity in Thurston County as this area is located too far (approximately 30 miles, or 40 minutes travel time) from the Port of Tacoma; proximity to the Port of Tacoma is a key factor in the current proposal based on the need to provide efficient movement of goods. Notably, Johnson Economics has established that sites located within ½ mile of the WA-167/I-5 interchange are the most suitable for meeting marketing needs and planning goals (Johnson Economics, 2024).

2.2 No Action Alternative

The No Action Alternative represents the most likely future conditions if there is no development of the site. Under the No Action Alternative, none of the proposed project facilities would be constructed.

2.3 Action Alternative 1: Prologis Park Project Area Industrial Development with Wapato Creek Realignment and Restoration

Action Alternative 1 was first submitted for a Site Plan Review permit application. Action Alternative 1 proposes redevelopment of the project site with the construction of three (3) buildings to be used for a high cube/fulfillment center and/or industrial park with warehouse uses. Action Alternative 1 also includes the realignment of Wapato Creek and a large-scale wetland and stream mitigation action associated with the realignment and restoration of Wapato Creek and associated wetlands. Once construction is completed, Action Alternative 1 is anticipated to support 1,420 employees. An additional 646 jobs are expected to result from ancillary/indirect economic activities, resulting in a total increase of 2,066 full time equivalent employees.

The project site is zoned Industrial (I). Per Edgewood Municipal Code (EMC) 18.80.100(A)*, the Industrial (I) zoning district provides for regional research, light manufacturing, warehousing, and other major regional employment uses. Industrial lands are limited to areas where regional transportation access is available.* Warehouses are defined as structures used for storing goods, wares, and merchandise, whether for the owner of the structure or for others. Warehousing and light manufacturing are permitted uses in the Industrial zoning district per EMC 18.70.050, Land Use Table.

Action Alternative 1 proposes realignment of Wapato Creek that includes 77,194 SF of direct wetland impact area (76,745 SF of Category II wetland impact and 449 SF of Category IV wetland impact), 3,002 linear feet of direct stream impact and 99,709 SF of direct wetland and stream buffer impact area. The proposal includes the creation of 252,589 SF of wetland area to mitigate for the direct wetland impacts, for a net wetland increase of 152,880 SF. In addition, the project will restore 178,123 SF of wetland and stream buffer and create 16,823 SF of wetland and stream buffer.

2.3.1 Facilities and Improvements

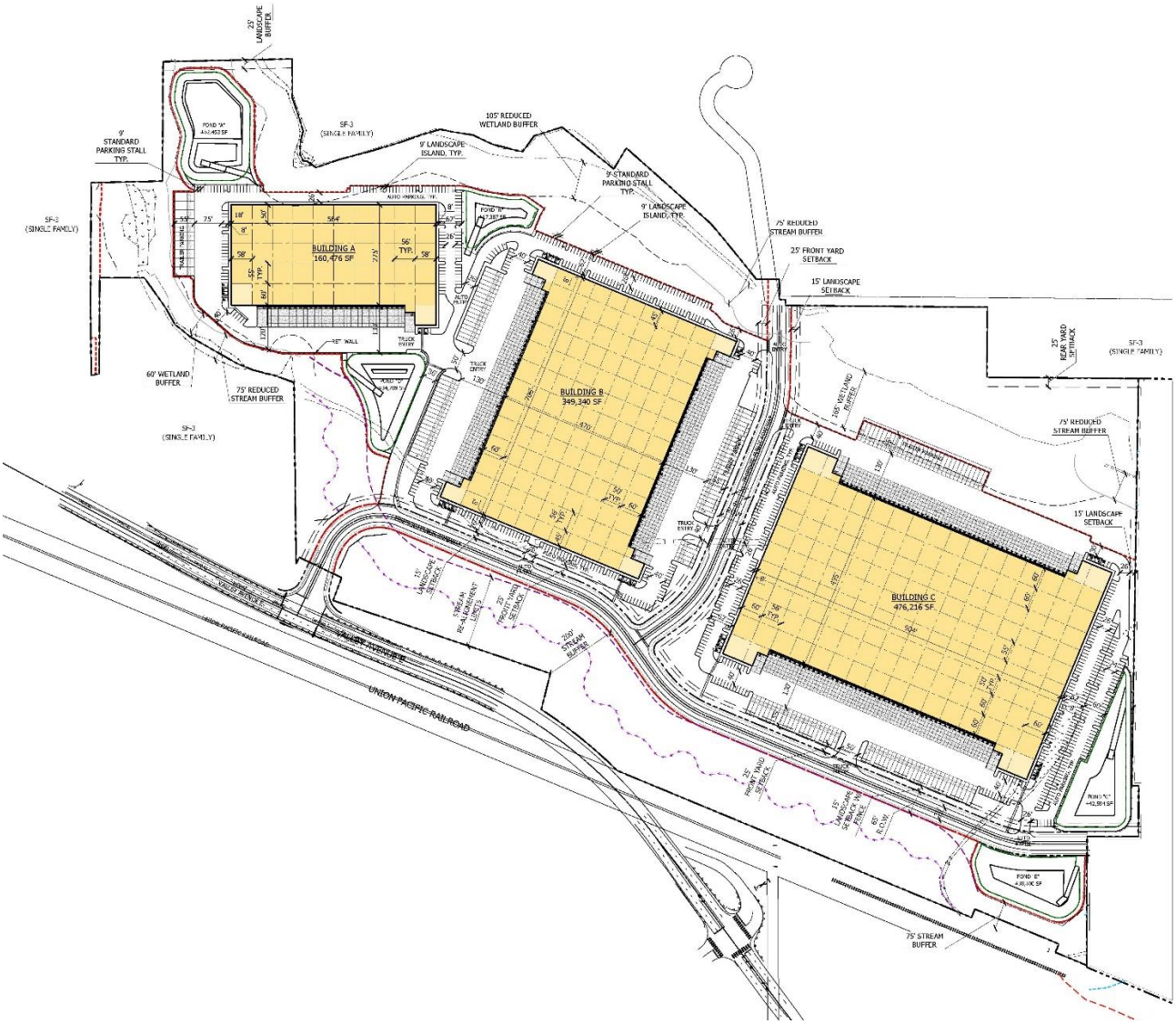
Action Alternative 1 includes truck docks, 168 trailer parking stalls, and 720 standard vehicle parking stalls. Additional improvements include associated grading, landscaping, utility improvements, new roadway access, a sewer and watermain extension, and other site improvements necessary for development. Entry to the site is proposed to be from a new 65-foot-wide public right-of-way off Valley Avenue East that would run parallel to the southern boundary of the site.

The three (3) high cube/fulfillment center warehouse and/or industrial park buildings included in Action Alternative 1 are proposed to total 986,032 SF. See ***Figure 2.1*** for the Action Alternative 1 Site Plan.

Table 2.1: Action Alternative 1 Proposed Building Square Footage and Associated Parking

Building	Proposed Size (SF)	Vehicle Parking Stalls	Trailer Parking Stalls
A	160,476	132	19
B	349,340	218	69
C	476,216	370	80
Total	**986,032**	**720**	**168**

Figure 2.1: Action Alternative 1 Site Plan



2.4 Action Alternative 2: Prologis Park Project Area Industrial Development with no Wapato Creek Realignment and Restoration

Action Alternative 2 proposes redevelopment of the project site with the construction of four (4) buildings to be used for a high cube/fulfillment center and/or industrial park with warehouse uses. Realignment of Wapato Creek is not included in this Action Alternative and therefore no enhancements to Wapato Creek are proposed. Once construction is completed, Action Alternative 2 is anticipated to support 1,287 employees. An additional 585 jobs are expected to result from associated ancillary indirect impacts, resulting in a total impact of 1,872 full time equivalent employees.

The project site is zoned Industrial (I). Per EMC 18.80.100(A), *the Industrial (I) zoning district provides for regional research, light manufacturing, warehousing, and other major regional employment uses. Industrial lands are limited to areas where regional transportation access is available*. Warehouses are defined as structures used for storing goods, wares, and merchandise, whether for the owner of the structure or for others. Warehousing and light manufacturing are permitted uses in the Industrial zoning district per EMC 18.70.050, Land Use Table.

Action Alternative 2 is designed to avoid direct environmental impacts to onsite critical areas by utilizing all developable areas onsite upland from these areas, primarily between Wapato Creek and Simons Creek. Avoidance of all impacts, however, is not possible due to extent and location of several onsite wetlands, a straightened stream, and associated buffers that bisect the majority of the project site.

2.4.1 Facilities and Improvements

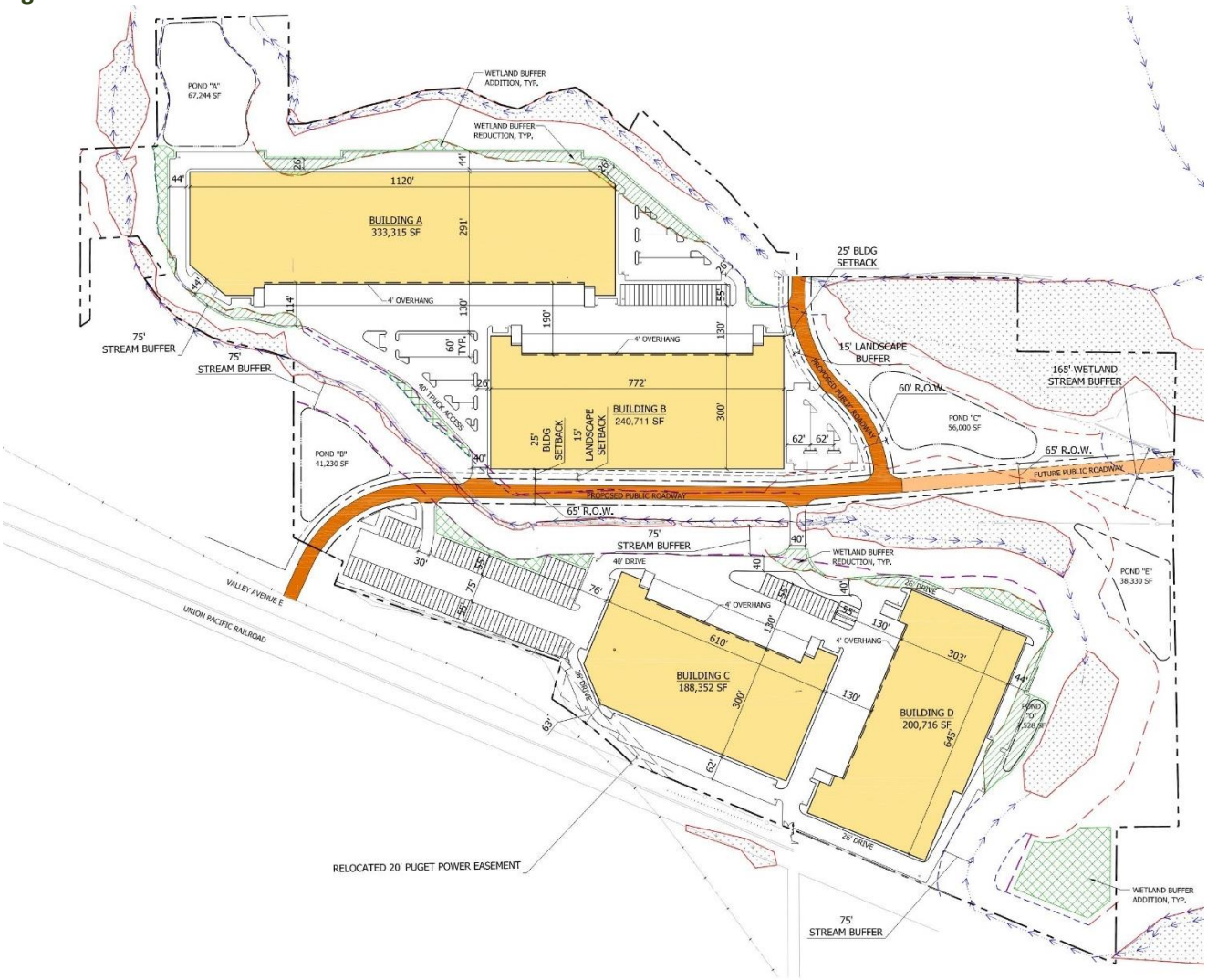
Action Alternative 2 includes the addition of truck docks, 145 trailer parking stalls, and 750 standard vehicle parking stalls. Additional improvements include associated grading, landscaping, utility improvements, new roadway access, sewer and watermain extension, and other site improvements necessary for development of warehouse buildings. Vehicle entry to the site is proposed from a new 65-foot public roadway off Valley Avenue East that would cross through the site, between the proposed warehouses.

The four (4) high cube/fulfillment center and/or industrial park warehouse buildings included in Action Alternative 2 are proposed to total 963,094 SF. See ***Figure 2.2*** for the Action Alternative 2 Site Plan.

Table 2.2: Action Alternative 2 Proposed Building Square Footage and Associated Parking

Building	Proposed Size (SF)	Vehicle Parking Stalls	Trailer Parking Stalls
A	333,315	256	0
B	240, 711	195	24
C	188,352	156	117
D	200,716	143	4
Total	**963,094**	**750**	**145**

Figure 2.2: Action Alternative 2 Site Plan



2.5 Comparative Summary of the Action Alternatives

The Action Alternatives provide development options to meet the objectives of the Applicant's proposal described in Section 2.1 above. All of the Action Alternatives proposed by the Applicant were analyzed in this Draft EIS, and there were no other Action Alternatives considered but not included consistent with WAC 197-11-440(5)(d). ***Table 2.3*** provides a comparison of the estimated building area, lot coverage, parking stalls provided, wetland removal, and wetland creation for each of the Action Alternatives.

Table 2.3: Comparison of Action Alternatives

	Action Alternative 1		Action Alternative 2	
Building Area	986,032 SF		963,094 SF	
Lot Coverage	Approximately 52 percent		Approximately 50 percent	
Parking Stalls Provided	888 (720 standard + 168 trailer)		895 (750 standard + 145 trailer)	
Direct Impacts to Critical Areas	Category II Wetlands	76,745 SF	Category II Wetlands	NA
	Category IV Wetlands	449 SF	Category IV Wetlands	NA
	Wapato Creek and Stream X	3,002 linear feet	Wapato Creek and Stream X	NA
	Wetland and stream buffers	99,709 SF	Wetland and stream buffers	404,526 SF
Wetland Area and Streams and Associated Buffer Created	Wetland creation	252,589 SF	Wetland creation	NA
	Stream creation	2,876 linear feet	Stream creation	NA
	Wetland and stream buffer creation	16, 823 SF	Wetland and Stream buffer creation	104,692 SF
	Non-compensatory wetland creation as buffer	233,298 SF	Wetland and stream buffer restoration	989,861

2.6 Benefits and Disadvantage of Delaying Implementation

Per WAC 197-11-440(5)(vii), an EIS is required to include the benefits and disadvantages of delaying implementation of the proposed Action Alternatives.

2.6.1 Benefits

Environmental benefits may occur from delaying the proposal, such as allowing for agricultural use of the land or environmental restoration/rehabilitation activities. This could allow for lower noise levels, improved air quality, habitat and wildlife conservation, cooler climate and/or temperatures, tree canopy preservation and fewer vehicle trips than those associated with the proposal. Additional environmental benefits include conserving the existing alignment and stream flow of Wapato Creek.

2.6.2 Disadvantages

If the proposal were postponed, existing undersized culverts that inhibit stream flow and fish habitat would remain. Restoration and rehabilitation of existing wetlands and fish and wildlife habitat areas would not occur. Measures to improve floodplain management on the site would not occur. Additionally, the economic benefits associated with the proposal, such as increasing employment opportunities and providing warehouse space in close proximity to the Port of Tacoma, I-5, and rail transportation would not occur at the project site. Additional economic benefits, such as tax revenue generation from the proposed project, would not be realized. Employment demand per the City of Edgewood Comprehensive Plan in accordance with the Washington State Growth Management Act (GMA) may not be met.

2.7 Alternatives Suggested During the EIS Scoping Public Comment Period

Three (3) comments were received during the EIS Scoping comment period from neighboring residents, the Washington Department of Fish and Wildlife, and East Pierce Fire and Rescue. Sixteen (16) comments were received prior to the EIS Scoping comment period, from eight (8) members of the public and the other eight (8) from agencies, Tribes, and other organizations. These comments suggested that not developing the project site would conserve its existing rural character and avoid the development of a use that would be incompatible with surrounding land uses that will remain. Public comments did not elicit any additional development alternatives. Additional alternatives were not evaluated due to project site constraints.

3. Earth

This chapter describes how implementation of either of the Action Alternatives could impact geology and soils at the project site compared to the No Action Alternative. This chapter discusses the potential for landslide hazards, erosion hazards, seismic hazards, and volcanic hazards on the project site.

This chapter is based on the *Geotechnical Report* prepared by Terra Associates, Inc., dated May 28, 2021, and revised June 13, 2025 (Appendix C) and the *Steep Slopes Design Memorandum* prepared by Terra Associates, Inc., dated April 7, 2025 (Appendix D).

3.1 Affected Environment

3.1.1 Geologic Setting

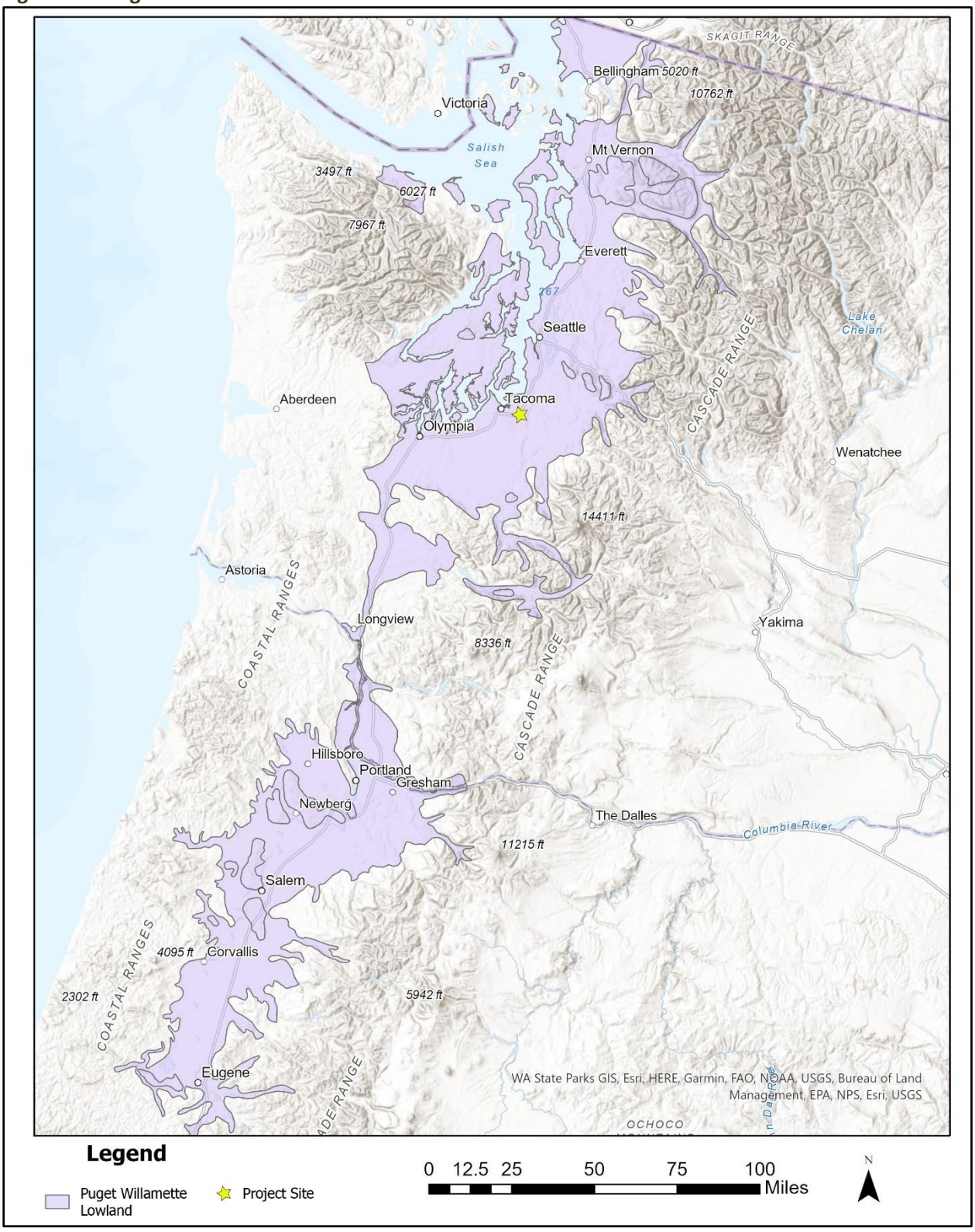
The proposed project is situated within the Puget-Willamette Lowland physiographic province. The Puget-Willamette Lowland is a discontinuous valley that is a forearc (subduction zone) basin formed by the convergence of tectonic plates. The lowland contains two (2) Neocene-age sedimentary basins separated by bedrock uploads (Vaccaro, Woodward, Gannett, Jones, Collins, Caldwell, and Hansen, 1997).

The project site is located within the Puyallup Valley of the central Puget Sound Region. It is situated along the northern edge of the valley bottom, at the base of the upland slopes, and within the Wapato and Simons Creeks floodplains.

The Puyallup Valley is a relict meltwater channel that formed following the advance of several Late Pleistocene (110,000 to 12,000 years ago) glaciations that originated from the Canadian region and extended between the Cascade and Olympic mountain ranges into the Puget Lowland (Kruckeberg 1991:12). The channel cut into glacial advance outwash deposits as the glacier retreated from the area between Orting and Puyallup approximately 14,000 years ago (Booth, Haugerud, and Troost 2003; Dragovich, Pringle, and Walsh 1994).

Locally, the project is at the southwest edge of the City of Edgewood, just north of City of Puyallup, and within the historic Puyallup Indian Reservation. Simons Creek and Wapato Creek flow through the project site forming a confluence approximately 0.15-miles northwest of the project boundary. Simons Creek originates northeast of the project site before flowing through a forested corridor surrounded by residential development. Simons Creek enters the project site from the northeast, traversing the northern property boundary and continuing offsite to the northwest. Wapato Creek enters from the southeast portion of the project site, flows west across the site, and continues offsite to the northwest. Wapato Creek alternates between one (1) and two (2) stream channels that converge at multiple onsite culverts. Wapato Creek is a seasonal stream, as some of the upstream reaches onsite can be dry during the summer months. A third stream, Stream X, is also located on the project site. Stream X is a small creek in the eastern portion of the project site that originates from a buried and broken 18-inch pipe culvert which is fed through a drainage ditch offsite to the northeast and flows into Wapato Creek.

Figure 3.1: Puget-Willamette Lowland



3.1.2 Soils

The overall topography of the project site is relatively flat. The site soils are alluvial sediments generally consisting of one (1) to four (4) feet of loose to medium dense, moist, mottled, silt to silty fine sand overlying fine sand, silty fine sand, and silt to sandy silt that are typically in a loose and wet condition. The Natural Resources Conservation Service (NRCS) Soil Survey of Pierce County, Washington, identifies four (4) soil series on the project site: Briscot loam (6A), Puget silty clay loam (30A), Sultan silt loam (42A), and Xerochrepts, 45 to 70 percent slopes (47F). Below is a description of the soil profiles.

Briscot loam (6A)

Briscot loam is a nearly level soil that is somewhat poorly drained. In a typical profile, the surface layer (0 to 11 inches) is dark brown loam. The subsoil (11 to 29 inches) is mottled, dark grayish brown fine sandy loam and silt loam. The lower part of the substratum (29 to more than 60 inches) is mottled, very dark grayish brown sand and gray silty clay loam. Briscot loam is listed as hydric (NRCS, n.d.).

Puget silty clay loam (30A)

Puget silty clay loam is poorly drained and formed in mixed alluvium under hard woods on the floodplains of the Puyallup and White Rivers between elevation ranges from sea level to 150 feet and slopes less than two (2) percent. Surfaces are slightly concave to flat with an annual precipitation of 35 to 50 inches and an average annual air temperature of around 50 degrees Fahrenheit. In a typical profile, the surface layer is dark grayish brown silty clay loam about 11 inches thick with the underlying material to a depth of about 24 inches being mottled, dark grayish brown and grayish brown silty clay loam. Between depths of 24 and more than 60 inches, it is mottled, dark grayish brown silty clay loam and dark gray silt loam. Permeability is slow and the available water capacity is high. Surface runoff is slow and there is no erosion hazard. Puget silty clay loam is listed as non-hydric, however, as much as 15 percent of areas mapped as Puget silty clay loam may contain hydric inclusions of Briscot and Snohomish soils (NRCS, n.d.).

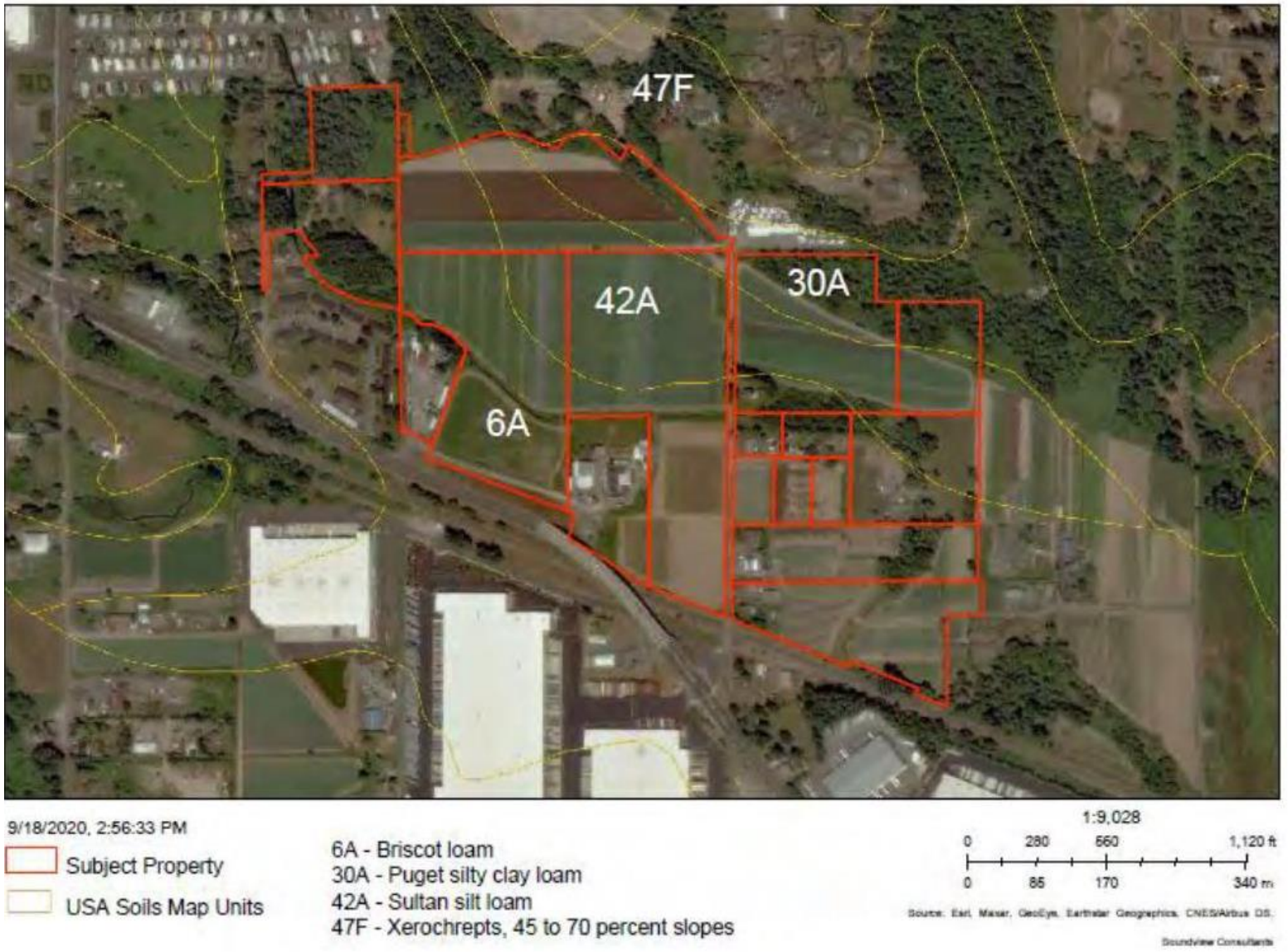
Sultan silt loam (42A)

Sultan silt loam (42A) soil series are moderately well drained soils formed in recent alluvium on floodplains at the sea level to 120 feet, under deciduous and coniferous trees. This soil is on the bottom lands along the Puyallup and White rivers at elevations ranging from near sea level to 100 feet. Slopes are less than two (2) percent, and the surface is smooth. In a typical profile, the surface layer is a dark grayish brown (10YR 3/2) silt loam about 14 inches thick. The underlying material to a depth of 34 inches is a mottled, brown silt loam and dark yellowish brown (10YR 5/4) very fine sandy loam. To a depth of more than 60 inches, it is a mottled, dark gray fine sandy loam, gray silty clay loam, very dark grayish brown fine sand, and dark yellowish-brown silt loam. The Sultan soil series is listed as non-hydric, however, as much as eight (8) percent of areas mapped as Sultan silt loam may contain hydric inclusions of Briscot and Puget soils (NRCS, n.d.).

Xerochrepts, 45 to 70 percent slopes (47F)

Xerochrepts, 45 to 70 percent slopes are very steep soils that are moderately well-drained and formed in glacial till or in sand and gravelly outwash. No one profile is representative of this unit; however, in the most common profile, the surface layer (no typical depth) is composed of a mat of undecomposed needles and wood over a dark yellowish brown gravelly sandy loam. The subsoil (to a depth of approximately 40 inches) is dark brown, brown, and dark yellowish brown gravelly sandy loam. The substratum (to a depth of 40 to more than 60 inches) is dark grayish brown and grayish brown gravelly sandy loam and gravelly loamy sand that is weakly cemented. Xerochrepts, 45 to 70 percent slopes is listed as non-hydric on the Pierce County Hydric Soils List (NRCS, n.d.).

Figure 3.2: Soils Map

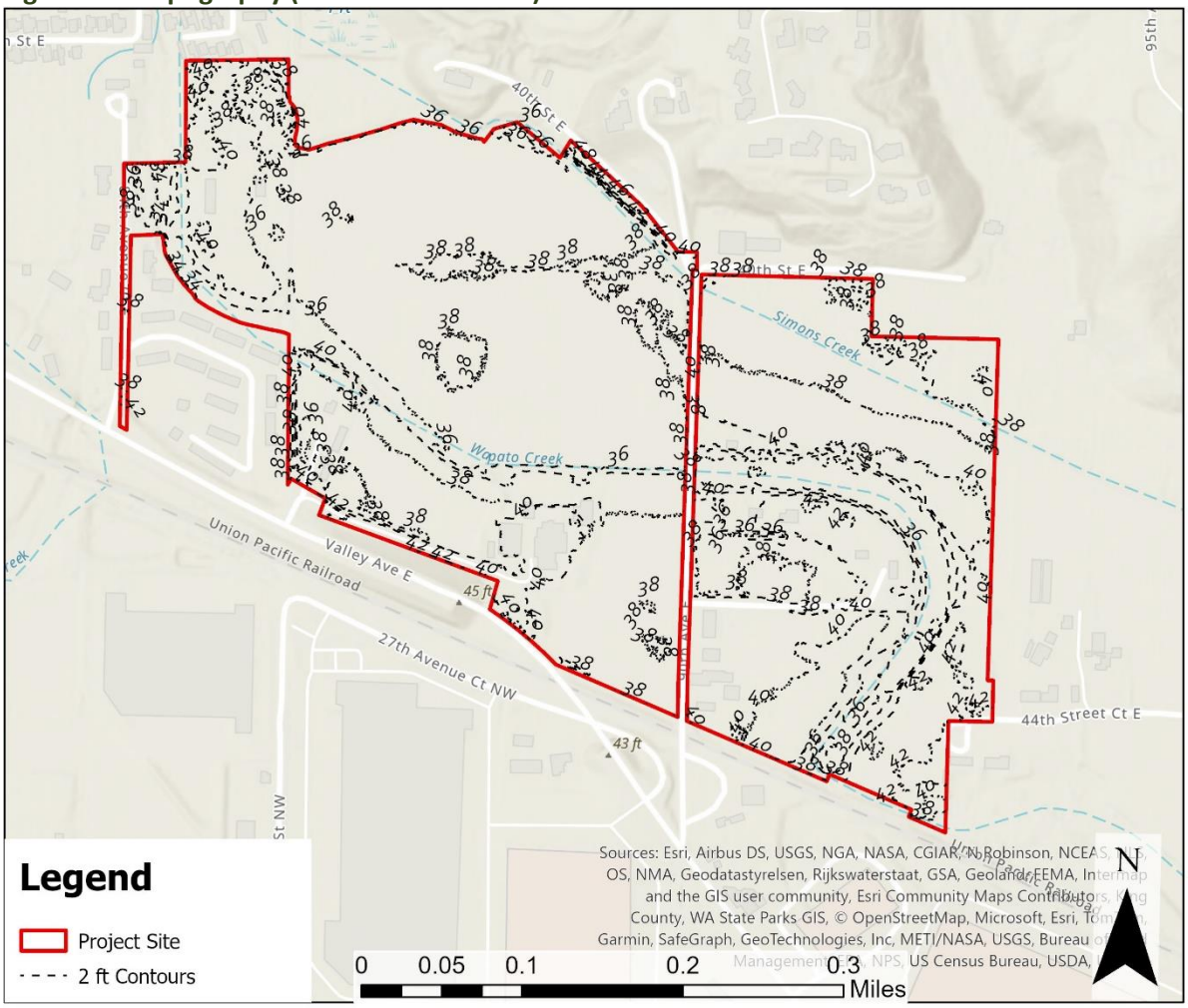


Source: NRCS Soil Survey Map

3.1.3 Topography

Site topography is relatively flat with elevations ranging from 34 to 42 feet above mean sea level (AMSL). The steepest slopes on site are the 20-40 percent slopes along the northeast corner of parcel 0420163076, near 40th Street East (see ***Figure 1.1*** for a map depicting parcel numbers on the project site). ***Figure 3.3*** shows the topography of the project site with two-foot contours.

Figure 3.3: Topography (Two-Foot Contours)



Source: Pierce County

3.1.4 Geological and Seismic Consideration

Edgewood Municipal Code (EMC) Title 14 regulates critical areas including landslide hazard areas (EMC Chapter 14.90), seismic hazard areas (EMC Chapter 14.100), and erosion hazard areas (EMC Chapter 14.110). The City of Edgewood's GIS data shows that the project site contains geologically hazardous areas further described below (City of Edgewood, 2024).

Landslide Hazards

Per EMC 14.90.020, landslide hazard areas are areas potentially subject to mass movement due to a combination of geologic, seismic, topographic, hydrologic, and/or manmade factors. Any slope of 40 percent or more with a vertical relief of at least 15 feet is considered a landslide hazard area. There are no known landslide hazard areas identified on the project site according to the *Geotechnical Report* prepared by Terra Associates, Inc. However, the site topography, though relatively flat, has one (1) steep

slope area (20-40 percent) along the northeast corner of parcel 0420163076 adjacent to Simons Creek, which is associated with the creek bank and outside the proposed development area (City of Edgewood, 2024).

Erosion Hazards

Erosion hazard areas are areas potentially subject to land regression or retreat due to a combination of geologic, seismic, hydrologic, or manmade factors. EMC 14.110.020(B)(4) states that soil erosion hazard areas are vulnerable to upper soil horizon erosion (depending on conditions of the natural vegetative cover), soil texture condition, slope, and rainfall patterns, or man-induced changes to such characteristics. Soil erosion hazard areas include areas with slopes of 20 percent or greater and that are classified as having severe or very severe erosion potential by the United States Department of Agriculture (USDA) NRCS. The NRCS soil survey identifies a small northern portion of parcel 0420163076 on the project site that contains Xerochrepts (45 to 70 percent slopes). Xerochrepts are very steep soils that are moderately well-drained and formed in glacial till or in sand and gravelly outwash. The mapped soils are within the buffer for Simons Creek and will not be disturbed with the proposed development.

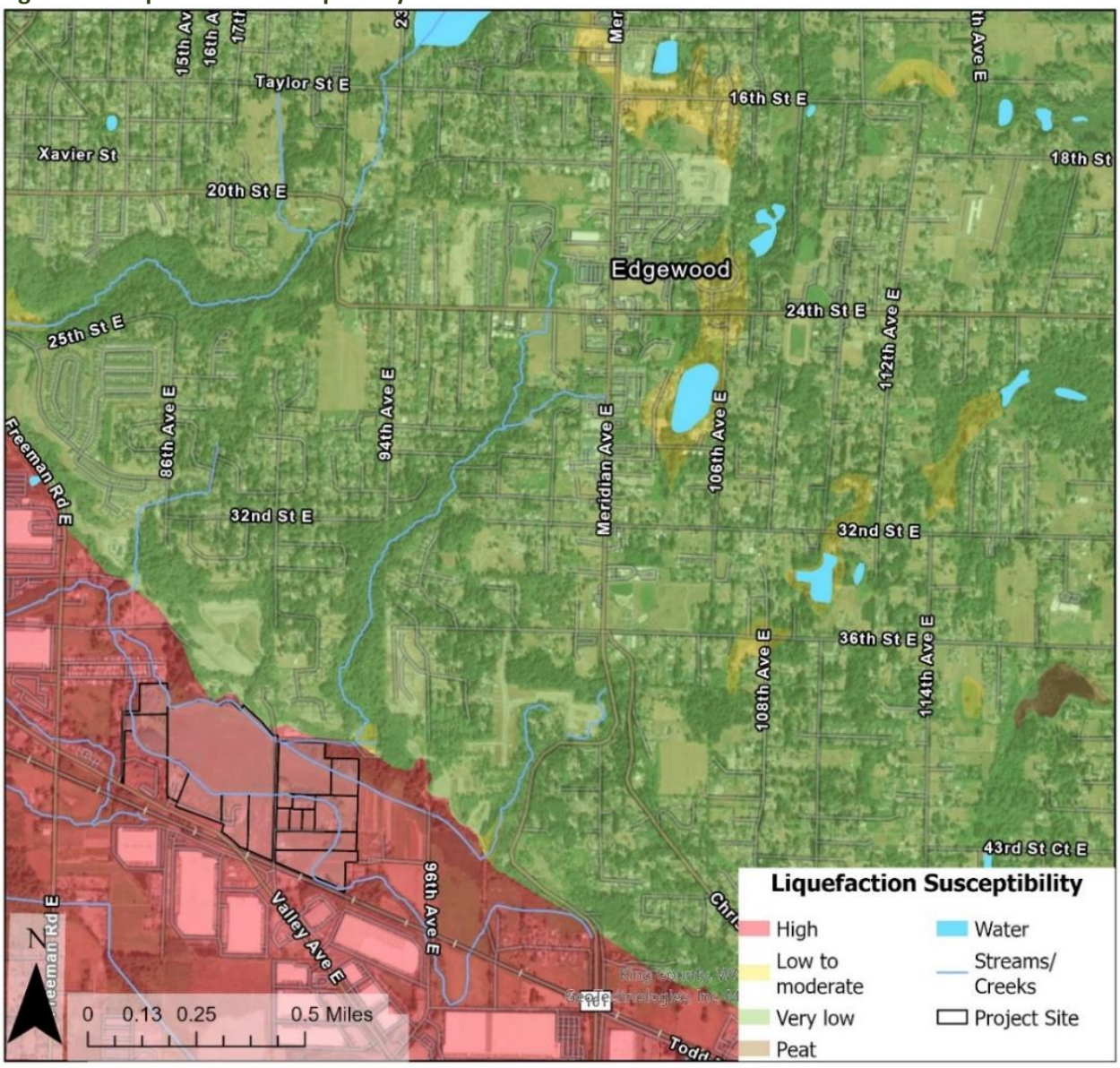
Seismic Hazards

Per EMC 14.90.020, seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced landsliding, seismic ground shaking, dynamic settlement, fault rupture, or soil liquefaction.

Soils on the project site are subject to liquefaction. Liquefaction is a phenomenon where there is a reduction or complete loss of soil strength due to an increase in water pressure induced by vibrations of an earthquake. Liquefaction mainly affects geologically recent deposits of fine-grained sands underlying the groundwater table. Soils of this nature derive their strength from intergranular friction. The generated water pressure or pore pressure essentially separates the soil grains and eliminates this intergranular friction; thus, eliminating the soil's strength.

Earthquakes are associated with hazards of liquefaction and landslides. Since 1997, seven (7) earthquakes with a magnitude greater than 2.0 have been recorded within five (5) miles of the project site (Pacific Northwest Seismic Network 2023), the strongest being of magnitude 3.9 in March 1988. The Washington State Department of Natural Resources (DNR) rates the Liquefaction Susceptibility as 'High' on the project site in the instance of an earthquake (see ***Figure 3.4)***.

Figure 3.4: Liquefaction Susceptibility

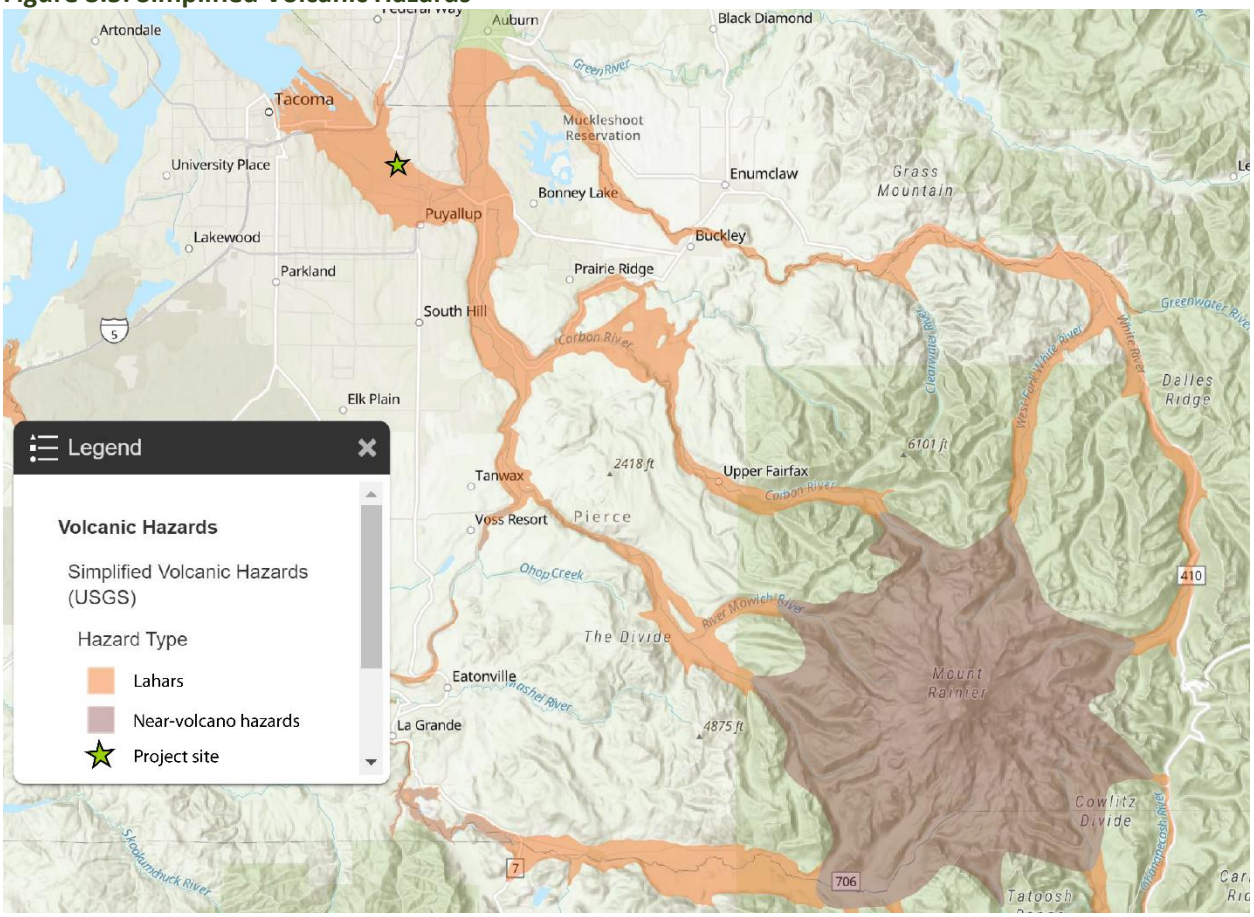


Source: Washington State Department of Natural Resources Geology GIS Data

Volcanic Hazards

Per EMC 14.70.020, volcanic hazard areas are areas subject to pyroclastic flows, lava flows, and inundation by debris flows, mudflows, or related flooding resulting from geologic and volcanic events on Mount Rainier. Mount Rainier is the closest volcano to the project site (approximately 35 miles southeast of the project site). In the past 2,600 years, Mount Rainier has erupted at least 10 times (Sisson and Vallance 2009). According to the Washington State DNR's Geologic Information Portal (***Figure 3.5***) the project site is within the Mount Rainier Lahars (volcanic mudflows) volcano hazard zone. Lahars, also known as volcanic mudflows or debris flows, are the greatest hazard from Mount Rainier. Lahars are hot or cold mixtures of water, from melted snow, ice, and rock fragments that flow down the slopes of a volcano and typically enter river valleys. A moving lahar resembles a rolling slurry of wet concrete, and as it rushes downstream, the size, speed, and amount of material carried can constantly change. Mount Rainier is particularly susceptible to lahars due to the abundance of ice, loose volcanic rock, and surface water, and because of the presence of slopes that have been weakened by hydrothermal alteration of rocks (U.S. Geological Survey 2023).

Figure 3.5: Simplified Volcanic Hazards



Source: Washington State Department of Natural Resources Geologic Information Portal

3.2 Environmental Impacts

3.2.1 No Action Alternative

Under the No Action Alternative, there would be no significant adverse impacts to the earth environment. Environmental impacts to the project site that may arise from earthquakes and volcanic eruptions remain, however these impacts are minimized if the project site remains undeveloped. It should however be noted that according to the *Prologis Draft EIS Support and Review Letter* prepared by Raedeke Associates, Inc. (Appendix E), previous agricultural uses on site included crop farming, which potentially increase erosion susceptibility for soils that are plowed and rototilled. No best management practices to control and prevent sedimentation would occur under the No Action Alternative.

3.2.2 Impacts Common to Both Action Alternatives

3.2.2.1 Construction Impacts

Geological Impacts

Construction of each of the proposed Action Alternatives would disturb the existing geologic settings of the area through vegetation removal, clearing, grading, and excavation. Although the described geotechnical impacts are common to both Action Alternatives, it is anticipated that these impacts will be increased with Action Alternative 1 due to the realignment of Wapato Creek.

The proposal will require mass clearing and grading in certain areas of the site to achieve desired roadways, parking, and building pad elevations. Preliminary engineering estimates indicate that approximately 85,000 cubic yards of onsite fill and excavation, and approximately 820,000 cubic yards of imported fill will be used to raise the existing ground to the proposed subgrade elevations. Site development activities including grading, vegetation removal, and backfilling activities may result in increased runoff and cause onsite erosion. Onsite erosion may lead to increased destabilization of existing steep slopes. Fill material adjacent to steeps slopes may also potentially lead to increased risk of slope failures. The mapped steep slopes on site are within the buffer for Simons Creek and will not be disturbed with the proposed development.

The proposal includes the construction of five (5) stormwater detention ponds, which require elevation of the ponds to allow for the live storage volume to be above the water table. Exposure to fluctuating storage water levels may subject exposed soils above the dead storage elevation on the interior side slopes of the ponds to risk of periodic shallow instability or sloughing.

Groundwater seepage should be anticipated within excavations extending below depths of about one (1) to four (4) feet. Excavations extending below these depths will likely encounter groundwater seepage with volumes and flow rates sufficient to require some level of dewatering.

Soils

Site development activities of each of the proposed Action Alternatives will disturb the native soils on the project site. The native soils on the site generally contain a sufficient percentage of fines that will make it difficult to compact as structural fill when too wet. The ability to use soils from site excavations as structural fill will depend on the soil moisture content and the prevailing weather conditions at the time of construction. If soils are found to be unstable during construction and cannot be stabilized, the affected soils may need to be treated and/or excavated and removed from the site, which may result in native soil loss.

Erosion
Site development activities including grading and backfilling activities may cause onsite erosion. Erosion caused by site development will be temporary in nature and erosion control measures will be employed to minimize erosion.

3.2.2.2 Operation Impacts

Geological and Seismic Hazards
Although site development would include importing approximately 820,000 cubic yards of fill to raise and stabilize subgrade elevations, there is still potential for a seismic event to cause soil liquefaction and lateral spreading. As DNR rates the site's liquefaction susceptibility as 'High,' future structures onsite may need to be supported by deep foundation systems or require ground improvement techniques to mitigate liquefaction and lateral spreading resulting from a seismic event.

3.3 Mitigation Measures

Impacts to the earth environment are geological in nature and can be mitigated for both Action Alternatives to the extent possible. These impacts result from the shallow seasonal groundwater level and the presence of weak, compressible silt soils that will consolidate under static dead loads imposed by the structure and by product loading on floor slabs. The proposed project will be subject to the following regulations and measures:

1. EMC Title 13 Surface Water Management and Site Development;
2. EMC Title 14 Critical Areas;
3. EMC Title 15 Buildings and Construction;
4. EMC Title 18, Development Standards;
5. A Temporary Erosion and Sediment Control (TESC) plan (per EMC 14.10.090) before any earthwork and construction activities begin;
6. Washington State Department of Ecology's National Pollutant Discharge Elimination System (NPDES) Permit for construction and industrial stormwater; and
7. No surface water should be directed toward or over identified steep slopes. Stormwater may be tightlined down steep slopes provided the alignment, discharge location, and design are approved by a geotechnical engineer.

In addition to the regulations above, the *Geotechnical Report* (Appendix C) identified specific mitigation measures to address possible impacts to geology and soils, including the following:

1. Raising floor grades with structural fill so that loading dock pavement grade can be established at existing surface elevations as well as permanent subgrade drainage to mitigate potential pavement impacts.
2. Temporary dewatering measures to lower the groundwater table to assist in establishing stable subgrades during construction.
3. Site earthwork and grading should occur during the late summer to early fall months of the year when groundwater levels should be at their lowest elevation.

4. Surcharging should be accomplished by raising grades to the planned floor elevations, placing an additional four (4) foot surcharge fill above the floor elevation, and then allowing settlement to occur under this load before building construction is initiated.

5. Mitigation of weak subgrade soils in paved areas will require cement amending or excavation and replacement with imported gravel base material.

    a. The contractor should be prepared to dry native soils by aeration during the normally dry summer season to facilitate compaction as structural fill. Alternatively, stabilizing the moisture in native soil with cement or lime can be considered. During the winter season, the contractor should be prepared to import clean granular material for use as structural fill and backfill.

    b. To significantly reduce or eliminate the potential impacts to exposed soils due to fluctuating stored water levels, a three to one (3:1) gradient for interior side slopes of the stormwater ponds shall be utilized. Additionally, exterior berm slopes and interior slopes above the maximum water surface levels shall have a slope no steeper than two to one (2:1). To further eliminate any potential erosion, all finished slope faces shall be compacted and vegetated.

    c. Perimeter foundation drains shall be installed adjacent to the perimeter foundations in the loading dock areas. Where the outside grade is elevated and equivalent to the building floor grade, perimeter foundation drains would not be required. Where installed, the foundation drains should be tightlined separately from the roof drains with a gradient sufficient to promote positive flow to a controlled point of approved discharge. All drains should be provided with cleanouts at easily accessible locations.

    d. Prior to placing fill or constructing footings, all exposed bearing surfaces should be observed by a representative of Terra Associates, Inc. to verify soil conditions are as expected and suitable for support of new fill or building elements.

Further details of the above mitigation measures are described in the *Geotechnical Report* (Appendix C).

3.4 Significant Impact Determination

This environmental review has determined that adverse impacts to the earth environment that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures described above, including recommendations identified in the *Geotechnical Report* (Appendix C) and compliance with the regulations contained in EMC Title 14 Critical Areas.

4. Cultural Resources

This chapter describes how implementation of either of the Action Alternatives could impact cultural resources on the project site compared to the No Action Alternative. The discussion includes descriptions of cultural resources on the project site and the potential impacts to these resources from site development activities.

This section is based on the following reports and technical memo prepared by Cultural Resource Consultants, LLC:

- *Cultural Resources Assessment for the Prologis Park Edgewood Project*, dated May 30, 2021 (Appendix F)
- *Supplement Field Investigation for the Prologis Park Edgewood Project*, dated March 29, 2022 (Appendix G)
- *Supplemental Cultural Resources Assessment for the Prologis Park Edgewood Project,* dated March 5, 2024 (Appendix H)
- Technical Memo *Review of Alternative 3 – Prologis Park Edgewood Project,* dated September 16, 2022 (Appendix I)

4.1 Affected Environment

The affected environment includes the entire project site where ground disturbance will occur. Cultural resources can be found above and below ground and above and below water level and may include artifacts, archaeological sites, or historic structures left behind by any inhabitants more than 50 years ago, as well as places and natural materials with cultural significance to Native Americans (Washington State Department of Natural Resources, 2024).

4.1.1 Geological Context

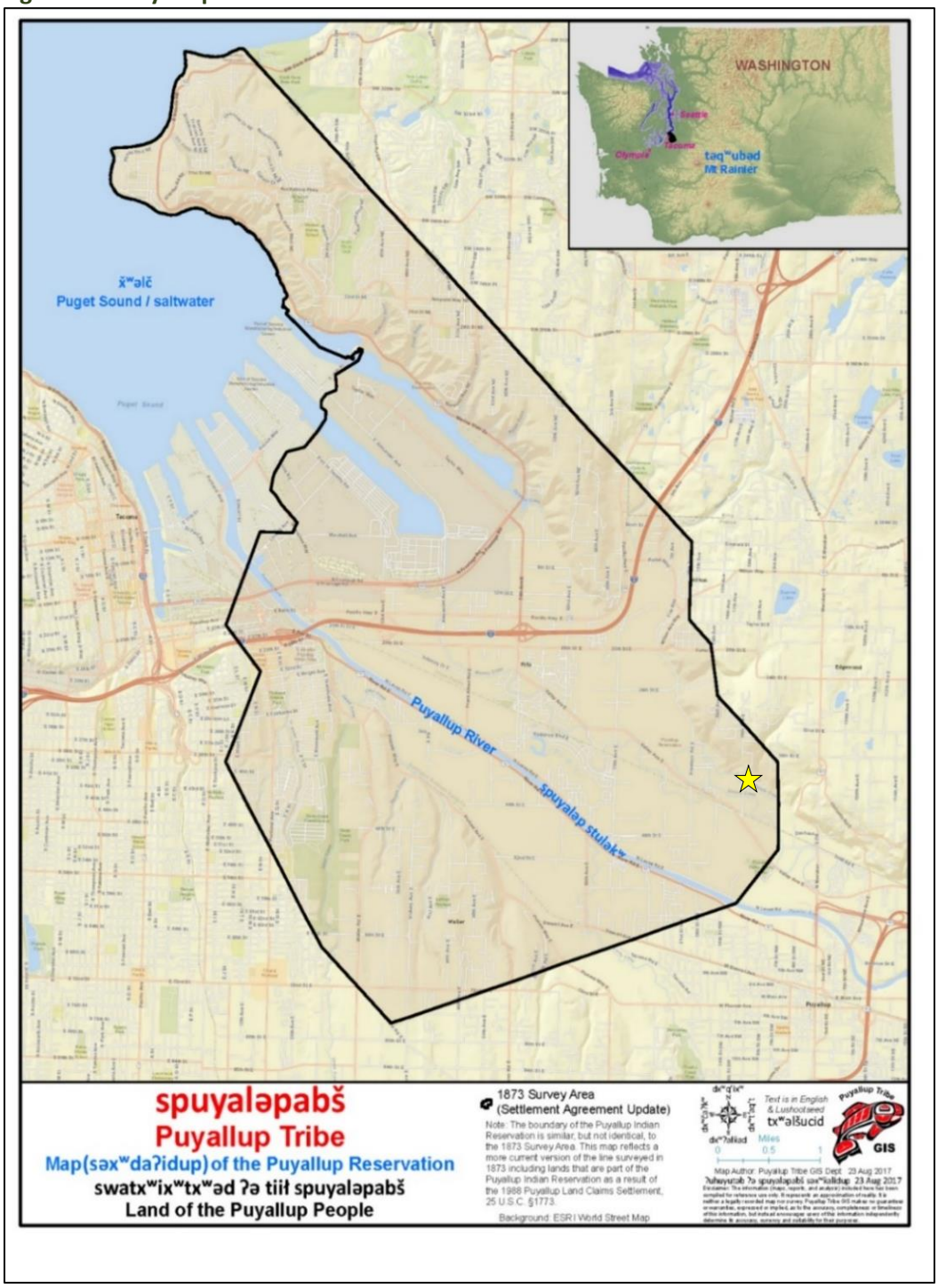
The project site is located within the Willamette-Puget Lowland physiographic province and within the Puyallup River Valley of the central Puget Sound Region. The site is on the northern edge of the valley bottom within the Wapato and Simons creeks floodplains, approximately one (1) mile southwest of Lake Chalet and 0.88 miles north of the Puyallup River. The project site consists of relatively even alluvial plain with moderately to heavily wooded areas in the western fifth of the property, in the northeastern corner, and areas along Wapato Creek. The alluvial deposits that make up the majority of the project site are landforms with high potential to contain buried archaeological sites. The remainder of the project site consists mostly of open land covered in grass and shrubs.

Four (4) soils are mapped on the project site including Briscot loam, Puget silty clay loam, Sultan silt loam, and Xerochrepts, 45 to 70 percent slopes (United States Department of Agricultural 2023). The southern half of the project site is mapped as Briscot loam, forming on floodplains from alluvium. Briscot loam is considered somewhat poorly drained with the water table typically present between 12 and 24 inches below the surface. Approximately two-thirds of the remaining portion of the project site is comprised of Sultan silt loam, forming on floodplains from alluvium. Sultan silt loam is considered moderately well drained with the water table typically present between 18 and 24 inches below the surface. The majority of the remainder of the site is comprised of Puget silty clay loam, forming on floodplains and terraces from alluvium. Puget silty clay loam is considered well drained with the water table typically present between 48 and 72 inches below the surface. A small northern-central portion of the site is comprised of Xerochrepts, which forms on valley sides from sandy and gravelly outwash and glacial till and is considered well drained (see Chapter 3 Earth for additional information).

4.1.2 Cultural Context

The project site is located within the historic Puyallup Indian Reservation and the Wapato Creek area, which are considered areas of cultural significance to the Puyallup Tribe of Indians, among other stakeholders. During the nineteenth century and centuries prior, the Puyallup people utilized the resources available in this area from the Hylebos Creek and Puyallup River.

Figure 4.1: Puyallup Indian Reservation



Source: Puyallup Tribe of Indians

4.1.3 Evaluation Criteria

The National Register of Historic Places (NRHP) assessment criteria (developed by the National Park Service) states that historical significance is determined based on whether a property:

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

NRHP guidelines require historic properties to remain intact in order to convey significance and must maintain their integrity. The criteria for "maintaining integrity" includes the following:

- Location (the place where the historic property was constructed or the place where the historic event occurred)
- Design (the combination of elements that create the form, plan, space, structure, and

  style of a property)
- Setting (the physical environment of a historic property)
- Materials (the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property)
- Workmanship (the physical evidence of the crafts of a particular culture or people during any given period of history or prehistory)
- Feeling (a property's expression of the aesthetic or historic sense of a particular period of time)
- Association (the direct link between an important historic event or person and a historic property)

4.1.4 Methodology

Background Research

Background research methods included review of previous cultural resource investigations within the project site vicinity and review of the Washington State Department of Archaeology and Historic Preservation (DAHP) Washington Information System for Architectural and Archaeological Records Database (WISAARD).

A total of two (2) cultural resource investigations have been recorded within one (1) mile of the project site since the initial Cultural Resources Assessment was conducted by Cultural Resource Consultants, LLC for the project site in May 2021. The two (2) projects consisted of two (2) phases of field investigation conducted as part of the Freeman Logistics Development Project, between 0.35 and 0.4 mile southwest of the project site.

The DAHP WISAARD includes previously conducted cultural resource assessments, records for archaeological sites and cemeteries, and NRHP and Washington Heritage Register (WHR) listed historic properties. A review of the DAHP WISAARD was also used to determine the likelihood and nature of cultural resources on the project site.

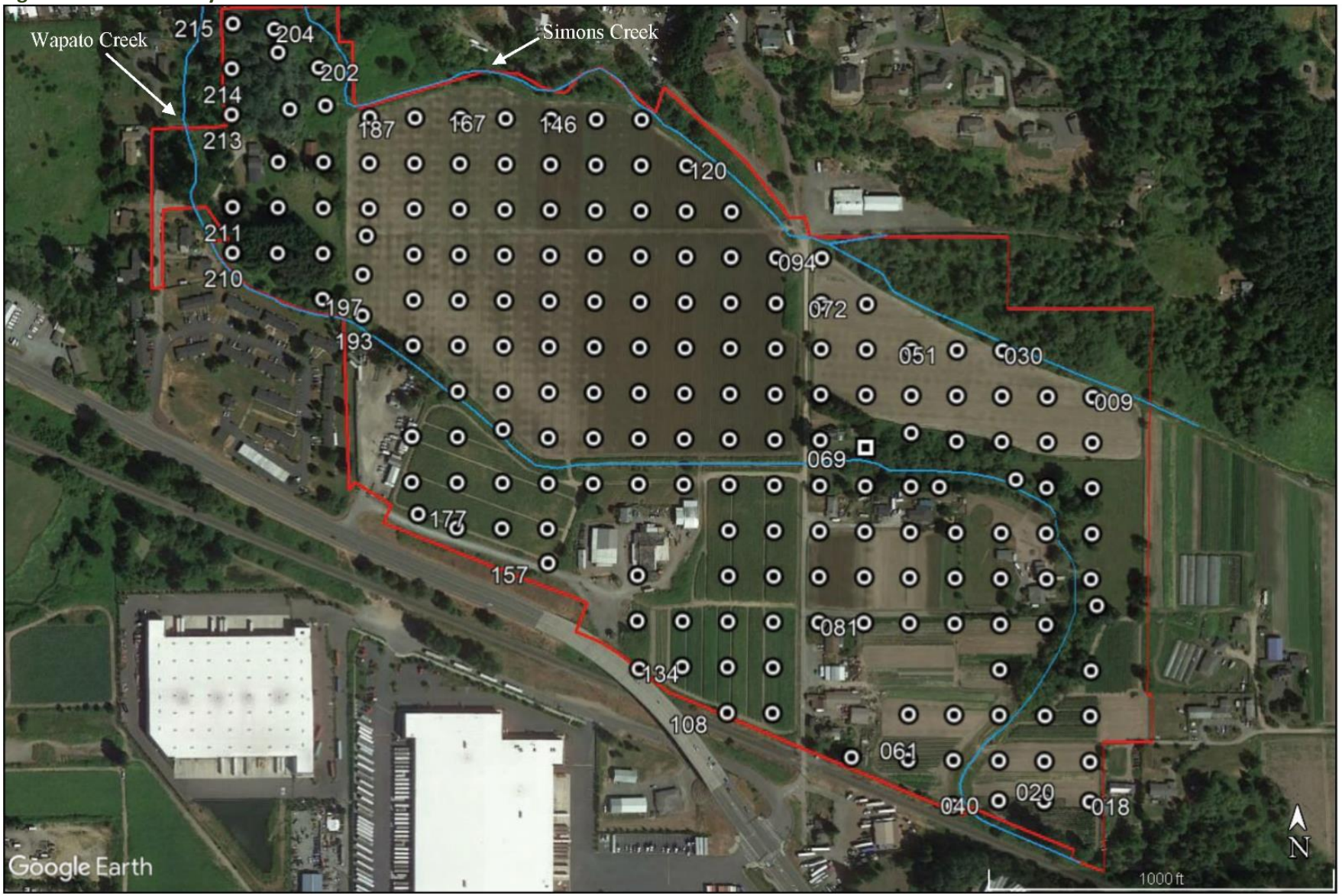
Surveys and Field Investigation

Survey (2021)

The first survey of the project site included a field survey performed by Cultural Resources Consultants, LLC from April 26 to April 30, May 3 to May 7, and May 17 to 18, 2021. Fieldwork consisted of both a pedestrian surface survey and subsurface investigation. The surface survey was conducted in areas of moderate to high visibility in transect sampling patterns which reflected the relative surface visibility (i.e., areas of high visibility were surveyed in narrow, five (5) meter, parallel transects while those in moderate visibility areas were sampled using 10 to 20 meter wavy transects which targeted areas of exposed surface soil).

Subsurface investigation included the excavation of 184 shovel test probes to a maximum depth of 150 centimeters below the surface, in a 40-meter by 40-meter grid (see ***Figure 4.2)***. The subsurface investigation originally planned to excavate 216 shovel probes; however, 32 locations were not feasible due to inaccessibility (such as being on property lines, or within creek channels). A supplemental field investigation was conducted following this investigation, specifically assessing the significance of an archaeological site that was identified (45PI106).

Figure 4.2: 2021 Survey - Shovel Probe Locations



Field Investigation (2022)

A supplementary field investigation was conducted on March 16, 2022, to assess the nature, significance, and distribution of archaeological deposits at site 45PI106. One (1) test unit was excavated at the site. The test unit was excavated in 10-centimeter intervals and was terminated at 40 centimeters below surface level after encountering the water table at approximately 30 centimeters below the surface.

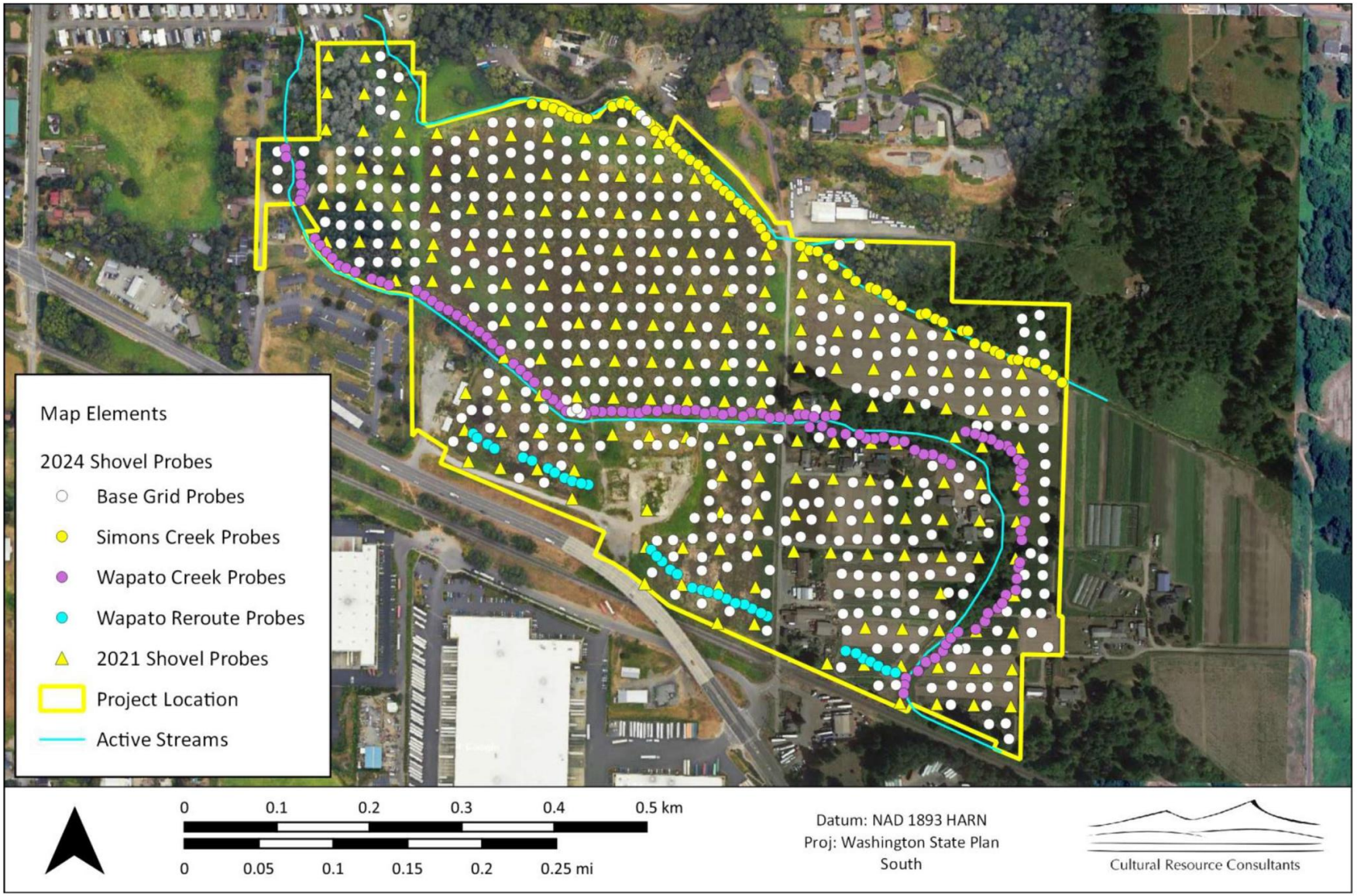
Ten (10) radial probes were excavated at five (5) meter intervals at cardinal directions from the positive test probe of the archaeological deposits. Radial probes were excavated to a target depth of 100 centimeters below surface or until archaeological deposits were identified.

Survey (2024)

A second field survey was conducted from January 12, 2024, to February 27, 2024. As requested by the Puyallup Tribe of Indians, the second field survey was more extensive than the first survey, with fieldwork investigations involving subsurface testing by hand excavated shovel probes (662 cylindrical 30-to-40-centimeter diameter) and surface surveying (***Figure 4.3***). The initial plan included 730 excavation probes, but some areas of the site were inaccessible. The probes were conducted within a 20-meter grid in areas that had not previously been tested during the 2021 survey. Locations along the current and planned stream channels were conducted in 10-meter intervals. As requested by the Puyallup Tribe of Indians, due to the location of the project, shovel probes were dug to a depth of 100 centimeters with a 10-centimeter bucket auger used to extend the probe to up to 210 centimeters below the surface. Due to site soil conditions, a depth of 210 centimeters was not feasible for many of the probe locations. The average probe depth was 181 centimeters, with approximately 39.1 percent reaching a depth of 210 centimeters.

Pedestrian surveys had been conducted during past investigations and therefore were limited to areas walked while shovel probing during this investigation, including a 20-meter interval pedestrian survey for most non-creek locations and one (1) or more lines paralleling Wapato and Simons creeks.

Figure 4.3: 2024 Survey - Shovel Probe Locations



4.1.5 Results

Background Research

Background research prior to the initial 2021 site investigation indicated very high likelihood for the presence of archaeological resources on the project site. No archaeological material was identified on the surface, though several historic built environment resources and one (1) archaeological site were noted.

Fourteen (14) historic buildings and one (1) archaeological site were identified, including six (6) houses dating from 1900 to 1967, one (1) bottling plant, one (1) 1900s poultry house, one (1) 1930s dairy barn, 1960s additions, and five (5) garage and/or industrial storage shells generally dated from 1960 to 1967. These buildings did not meet the criteria for the historic register and were recommended not eligible for listing on historic registers. All buildings on the project site have since been demolished, leaving the existing project site as vacant land.

The archaeological site that was found on the project site was determined to be an intact refuse deposit dated to the mid-1900's, however further investigation was needed for better assessment. Further investigation identified deposits across an approximately 5,274 SF area southeast of a demolished historic home that had previously been identified by past Cultural Resource Consultants, LLC investigations. The site was recommended for potential eligibility for the NRHP and WHR. Additionally, it was recommended that an archaeological monitoring plan be developed for the site prior to any ground disturbance that would occur in the vicinity of the identified deposits.

No previously recorded cultural resources were identified by DAHP WISAARD mapping on the project site.

Surveys and Field Investigation

Surface Survey (2021)

The northwestern and northeastern corners of the project site were inaccessible to pedestrian surveys and subsurface investigations due to dense vegetation and standing water. No archaeological sites or materials were observed during surface surveying.

The surface survey identified the following materials, but none were recorded as archaeological sites because they had minimal temporal diagnostics and were too fragmented, and also lacked depositional context. See ***Figure 4.4*** for locations and corresponding labels of each parcel on the project site.

- A sparse, 20-meter diameter scatter of ceramic and glass shards just north of the culvert leading to the northwest corner of Parcel 0420163055 (Parcel G);
- A brick fragment, and isolated clear glass fragments scattered across the west half of Parcel 0420163026 (Parcel I);
- Two (2) amethyst glass fragment isolates in the row-crop fields of Parcels 0420163003 (Parcel Q) and 0420163074 (Parcel R), west of the Wapato Creek channel.

Figure 4.4: Parcel Labels

Subsurface Survey (2021)

Cultural materials were identified in 18 probes, including glass or ceramic shards with minimal or no temporally diagnostic features. One (1) probe identified an intact dense deposit of glass and metal shards, which was determined to be an intact archaeological site. The archaeological site was recommended for further investigation (continued excavation and the placement of probes at five (5) meter intervals) to identify the boundaries and better assess the significance.

Field Investigation (2022)

A supplemental field investigation was conducted following the 2021 survey that specifically assessed the significance of the archaeological site that was identified.

The results of the test unit found archaeological materials between 10 and 40 centimeters below surface. Identified artifacts included glass, metal, and ceramic fragments, an oyster shell fragment, a metal irrigation valve wheel, and four (4) whole glass bottles. The radial probes identified artifacts consisting of window, lamp, and vessel glass fragments, metal and wire nail fragments, ceramic shards, one (1) clam shell, three (3) glass bottles, and other domestic refuse. The results suggest the archaeological site contains domestic refuse likely associated with the single-family residence that stood immediately to the northwest.

Based on the results of the survey conducted in 2021 as a part of the *Cultural Resources Assessment* and the field survey conducted in 2022 as a part of the *Supplement Field Investigation*, Cultural Resources Consultants, LLC recommended that the archaeological site 45PI106 be considered potentially eligible

for listing on the NRHP and WHR. It was also recommended that an archaeological monitoring plan be developed for areas in the vicinity of the identified deposits, prior to ground disturbing activities.

Surface Survey (2024)

The northwestern corner and the northeastern most portion (north of Simons Creek) of the project site were inaccessible for surface surveying due to dense vegetation and standing water. No archaeological sites or materials were observed during surface surveying for the accessible portion of the site. Light to moderate scatters of modern trash and old fencing were the only material present.

Subsurface Survey (2024)

The northwestern corner and the northeastern most portion (north of Simons Creek) of the project site were inaccessible for subsurface surveying due to dense vegetation and standing water. Additional areas originally proposed for excavation were in the vicinity of residences that were occupied. Two (2) other locations proposed for excavation were within areas that contained large amounts of debris and fill and were therefore deemed infeasible for excavation. In the course of the subsurface survey, nine (9) probes were positive for archaeological material which led to the discovery of four (4) archaeological sites.

Three (3) of the archaeological sites at the project site were recommended not eligible for listing on historic registers, including the following:

- 2103A-3-001 - an isolated fragment of fire modified rock in the northern portion of parcel 0420163076 (Parcel F and H as shown in ***Figure 4.4***). Site 2103A-3-001 is recommended not eligible for listing on historic registers due to its lack of significant association, lack of embodiment of craft, and inability to contribute to our understanding of history.
- 2103A-3-002 - a secondary flake fragment in the southern portion of parcel 0420163076 (Parcel F and H as shown in ***Figure 4.4***). Site 2103A-3-002 is recommended not eligible for listing on the NRHP due to its lack of significant association, lack of embodiment of craft, and inability to contribute to our understanding of history, as well as its lack of integrity.
- 2103A-3-003 - a series of industrial debris associated with a dairy production complex in the southern portion of parcel 0420163076 (Parcel F and H as shown in ***Figure 4.4***). Site 2103A-3-003 is recommended not eligible for listing on the NRHP due to its lack of significant association, lack of embodiment of craft, and inability to contribute to our understanding of history.

The fourth archaeological site (45PI106) consists of a domestic trash dump likely associated with a family who resided there from the 1920s to the 1990s, in the southern portion of parcel 0420163026 (Parcel I as shown in ***Figure 4.4***). This site was recorded from previous investigations and was recommended as potentially eligible for listing on the NRHP and WHR and continues to be recommended for potential listing based on the *Cultural Resources Assessment*. During supplemental field investigation, modern refuse was identified mixed with historical refuse, suggesting the site has been altered by land clearing, agricultural activities, construction, or other forms of ground disturbance. It is unknown whether archaeological deposits situated at greater depth have been shielded from disturbance. Additional archaeological investigation is necessary to fully evaluate the integrity of the site.

4.2 Environmental Impacts

4.2.1 No Action Alternative

Under the No Action Alternative, the project would not be built and archaeological site 45PI106 recommended as potentially eligible for listing on the NRHP and WHR would remain on the project site with no anticipated impacts to its current condition.

If no development occurred, the archaeological site would continue to deteriorate from natural elements and the mitigation measures described below in Section 4.4 would not be implemented.

4.2.2 Impacts Common to Both Action Alternatives

The Cultural Resource Consultants, LLC technical memo concluded that the impacts to cultural resources on the project site are the same for both proposed Action Alternatives.

One (1) domestic trash dump on the project site was identified as an archaeological site (45PI106) and was recommended as potentially eligible for listing on the NRHP and WHR. Disturbance of the archaeological site shall be avoided until it is formally determined eligible by DAHP. All additional buildings or archaeological sites have been recommended not eligible for listing on historic registers.

The Cultural Resource Consultant assessments concluded that construction of the project will occur in the upper three (3) feet below the existing surface and the upper six (6) feet for creek rerouting and channelization and are therefore unlikely to encounter archaeological materials in areas that shovel probes were used. However, there is evidence that archaeological resources may be present in those areas on the project site that were inaccessible for surveying.

Construction Impacts

The Cultural Resource Consultants, LLC assessments and previous investigations determined that the ground disturbing activities associated with the development of either Action Alternatives will impact archaeological site 45PI106 due to its location within areas proposed for development for both Action Alternatives.

Operations Impacts

No operations impacts to archaeological resources would occur, as the archaeological site would be cleared prior to construction of either of the Action Alternatives.

4.3 Mitigation Measures

4.3.1 Measures Common to Both Action Alternatives

A Monitoring and Inadvertent Discovery Plan (MIDP) is required to be developed prior to any ground disturbing activities in the vicinity of the potentially eligible site. The MIDP shall include steps for careful excavation and procedures for additional archaeological investigation if needed.

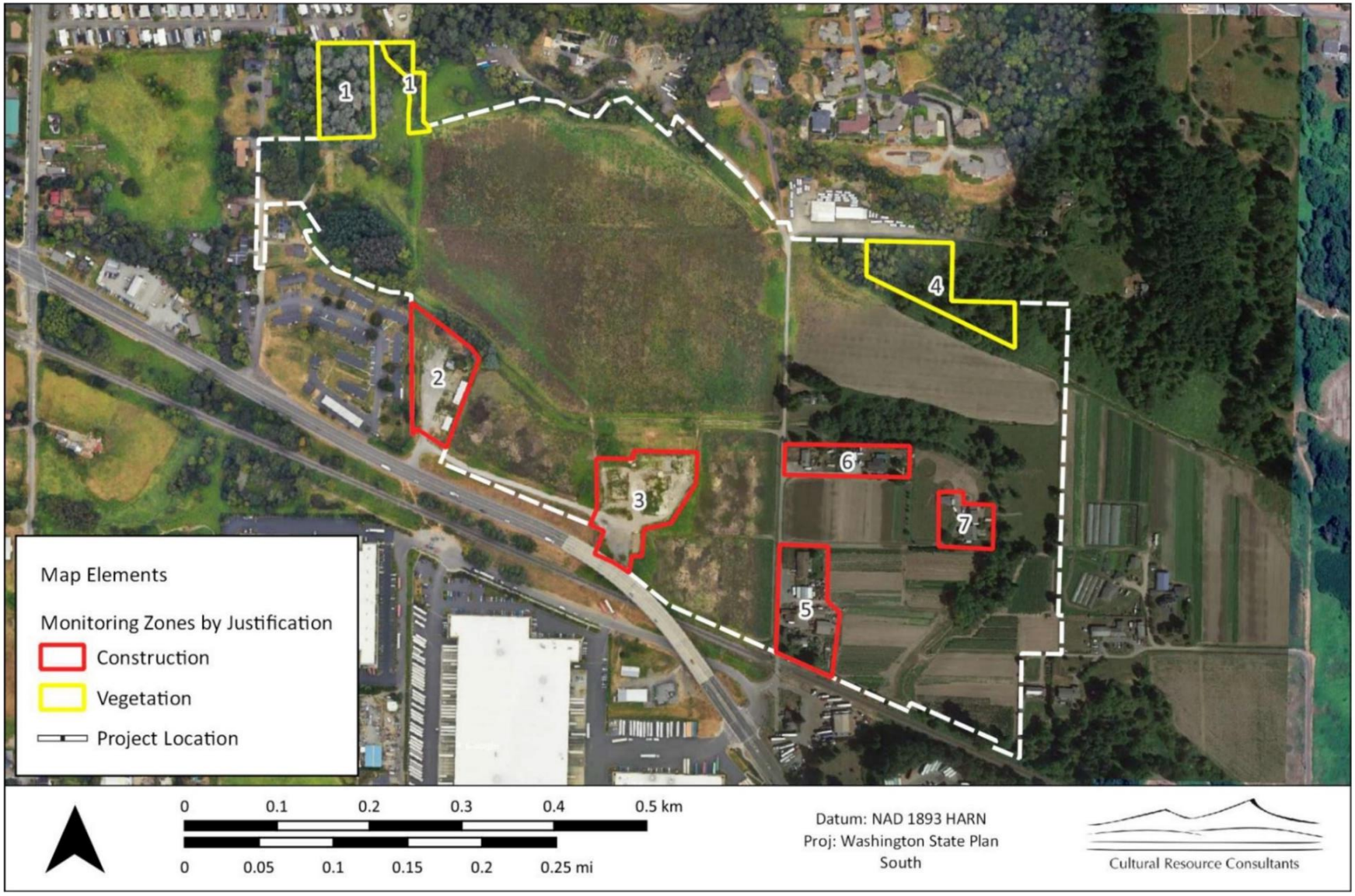
Ground-disturbing activities that will intersect native sediments in the areas inaccessible to field crews shall be subject to archaeological monitoring. Appropriate monitoring methods will be included in the MIDP. Seven (7) such areas have been identified (***Figure 4.5***) including, portions of the northwest corner of the project site, portions of the northeast corner of the project site near Simons Creek, and the five (5) locations that were occupied by residences at the time of surveying or construction debris/fill piles. All five of the previously occupied structures have now been demolished.

If project activities result in the discovery of archaeological materials, project staff shall follow the Inadvertent Discovery Plan provided in the *Cultural Resources Assessment* prepared by Cultural

Resource Consultants, LLC dated May 30, 2021, and any discovered archaeological materials shall be incorporated into the MIDP.

All construction activities shall follow the requirements regarding the finding and protection of human remains or potential human remains per RCW 27.44; 68.50; 68.60 and disturbance to archaeological resources per RCW 27.53.

Figure 4.5: Zones Recommended for Monitoring



4.4 Significant Impact Determination

Groundwork associated with the Prologis Park Edgewood Project will adversely affect archaeological deposits at archaeological site 45PI106 and may adversely affect archaeological deposits in areas that were inaccessible to field crew during subsurface testing.

This environmental review has determined that any adverse impacts to cultural resources that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures described above including a Monitoring and Inadvertent Discovery Plan (MIDP).

5. Surface Water

This chapter describes how implementation of either of the Action Alternatives could impact surface water quality in the vicinity of the project site compared to the No Action Alternative. This chapter includes discussion of surface water and stormwater management.

This chapter is based on the following reports and technical letter prepared by Soundview Consultants LLC. Note that throughout this document, the three (3) alternatives are referred to as "No Action Alternative", "Action Alternative 1", and "Action Alternative 2". The order and names of the Action Alternatives and the No Action Alternatives may differ between the reports listed below.

- *FEMA Habitat Assessment (Alternative 2)* dated January 22, 2021, and revised January 2025 (Appendix J)
- *FEMA Habitat Assessment (Alternative 3)* dated January 17, 2025 (Appendix K)
- *Conceptual Mitigation Plan (Alternative 2)* dated November 2020 and revised January 2025 (Appendix L)
- *Conceptual Buffer Mitigation Plan (Alternative 3)* dated December 2023 and revised August 2024 (Appendix M)
- *6PPD Technical Letter dated June 5, 2025* (Appendix N)

This chapter is also based on the following reports prepared by Barghausen Consulting Engineers:

- *Hydrologic and Hydraulic Study (Alternative 2)* dated February 9, 2024 (Appendix O)
- *Hydrologic and Hydraulic Study (Alternative 3)* dated February 9, 2024 (Appendix P)
- *Preliminary Stormwater Site Plan dated June 1, 2021, and revised November 14, 2023 (Appendix Q)*
- *Alternative Site Plan Storm Memo Prologis Park Edgewood dated September 21, 2022 and revised November 14, 2023 (Appendix R)*

5.1 Affected Environment

The affected environment includes all surface water bodies located on the project site and within the vicinity of the project site.

Surface water refers to water above the ground and includes streams, rivers, lakes, ponds, and reservoirs. Surface water is an important natural resource for irrigation, public supply, wetlands, and wildlife (US Geological Survey, 2025).

Stormwater is precipitation that runs off surfaces such as rooftops, paved surfaces and other impervious surfaces and drains into surface water (either onsite or offsite). Stormwater runoff from the proposed development under both Action Alternatives will be collected from all pollution generating impervious surfaces (loading areas, roadways, rooftops, etc.). The stormwater will be treated using enhanced water quality treatment facilities such as detention ponds that outlet to dispersion areas within wetland and stream buffer restoration areas.

5.1.1 Streams and Wetlands

The project site and immediate vicinity contains three (3) Type F (fish-bearing) streams: Wapato Creek, Simons Creek, and an unnamed Stream X. Simons and Wapato creeks flow through the project site forming a confluence 0.15-miles northwest of the project site boundary. Simons Creek originates north of the project site before flowing through a forested corridor surrounded by residential development. It then enters the project site from the northeast, traversing the northern property boundary and continues offsite to the northwest. Wapato Creek enters at the southeast portion of the project site, flows west across the site, and continues offsite to the northwest. Wapato Creek alternates between one (1) and two (2) stream channels that converge at multiple onsite culverts. Wapato Creek is a seasonal stream, as some of the upstream reaches onsite can be dry during the summer months. Stream X is a small creek in the eastern portion of the project site that originates from a buried and broken 18-inch pipe culvert which is fed through a drainage ditch offsite to the northeast and flows into Wapato Creek.

The project site and immediate vicinity has a total of 13 wetlands (described as Wetlands A through K) (***Table 5.1***). The wetlands are interspersed across the project site, generally associated with the onsite streams.

Soundview Consultants, LLC investigated the project site for the presence of potentially regulated wetlands and waterbodies in June, July, August and November of 2018, September of 2019, and February, July, and September of 2020. Wetlands were classified using both the Hydrogeomorphic and Cowardian classification systems. Following classification and assessment, all wetlands were rated and categorized using the *Washington State Wetlands Rating System for Western Washington* and guidelines established in EMC 14.40.020 (Hruby 2014). Streams and surface water features were classified using the DNR water typing system as outlined in WAC 222-16-030 and the guidelines established in EMC 14.50.020. Water quality of Wapato Creek was tested on May 4, 2021, prior to the warmer months and was determined to be highly degraded. The observed dissolved oxygen level was 4.1 mg/L, with a water temperature of 15.6 degrees Celsius (approximately 60 degrees Fahrenheit) and a pH level of 7.2. The observed dissolved oxygen level was below the 6.5 mg/L threshold per WAC 173-201A-200. The observed water temperature was close to the upper limit for freshwater aquatic life criteria which is 17.5 degrees Celsius (approximately 63.5 degrees Fahrenheit).

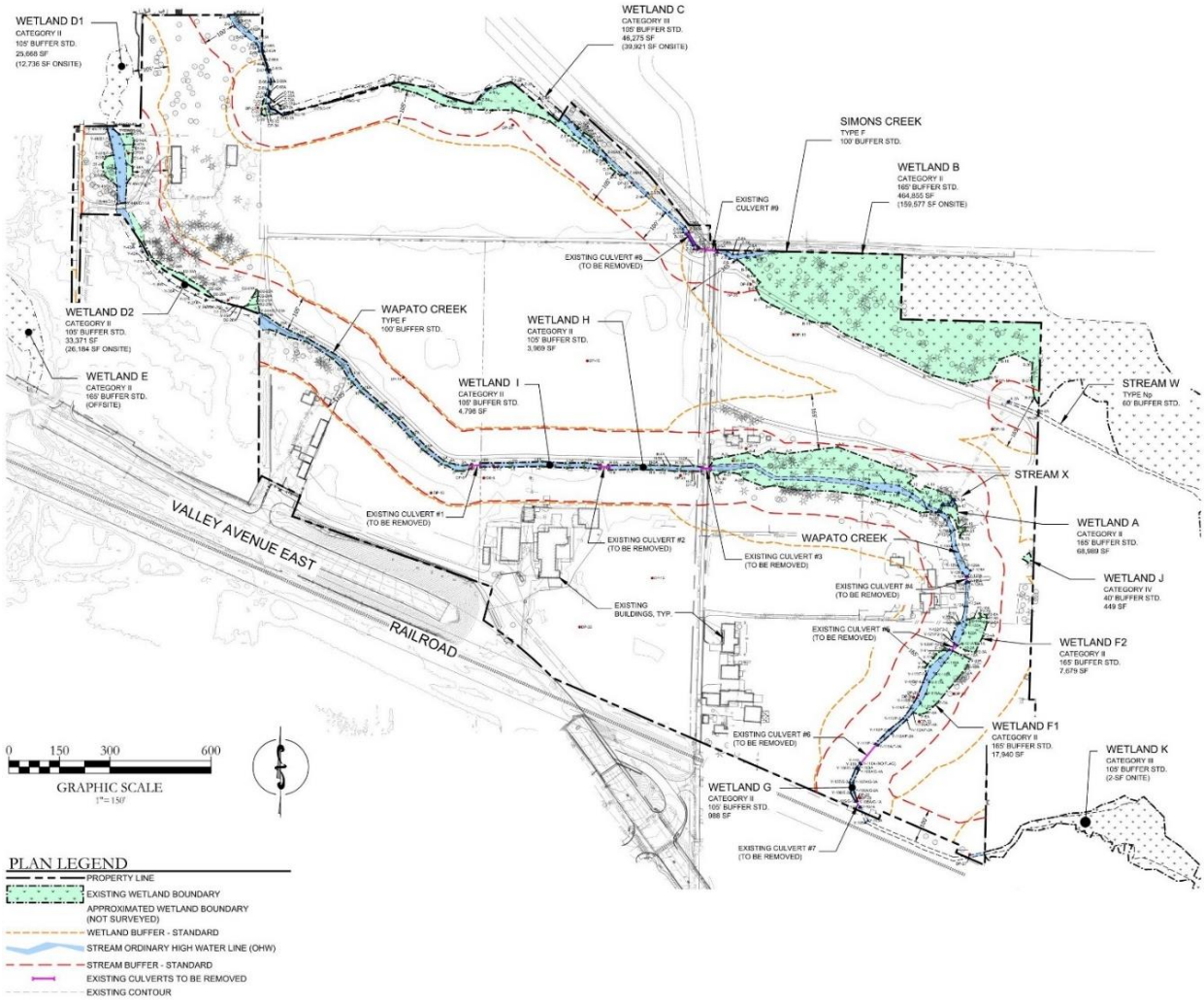
Table 5.1 identifies each of the wetlands and streams and their approximate size and length within the project site, their category, habitat score, and minimum standard buffer.

Table 5.1: Wetlands and Streams

Wetland/Stream Name	Approximate Size/Length Onsite	Category/Type	Habitat Score (Wetlands)	Minimum Standard Buffer[1]
Wetland A	0.67 acres	II	6	165 feet
Wetland B	2.63 acres	II	7	165 feet
Wetland C	0.84 acres	III	5	105 feet
Wetland D1	0.3 acres	II	5	105 feet
Wetland D2	0.69 acres	II	5	105 feet
Offsite Wetland E	0.00 (offsite)	II	6	165 feet
Wetland F1	0.42 acres	II	6	165 feet
Wetland F2	0.17 acres	II	6	165 feet
Wetland G	0.02 acres	II	5	105 feet
Wetland H	0.10 acres	II	5	105 feet
Wetland I	0.13 acres	II	5	105 feet
Wetland J	0.13 acres	IV	4	40 feet
Offsite Wetland K	0.00 (offsite)	III	5	105 feet
Wapato Creek	3,714 linear feet	Type F	NA	100 feet
Simons Creek	1,846 linear feet	Type F	NA	100 feet
Stream X	69 linear feet	Type F	NA	100 feet

1. The standard buffers for each wetland category are in accordance with EMC 14.40.030(B)(2) and the standard buffers for each stream category are in accordance with EMC Table 14.50.030.

Figure 5.1: Wetlands and Streams



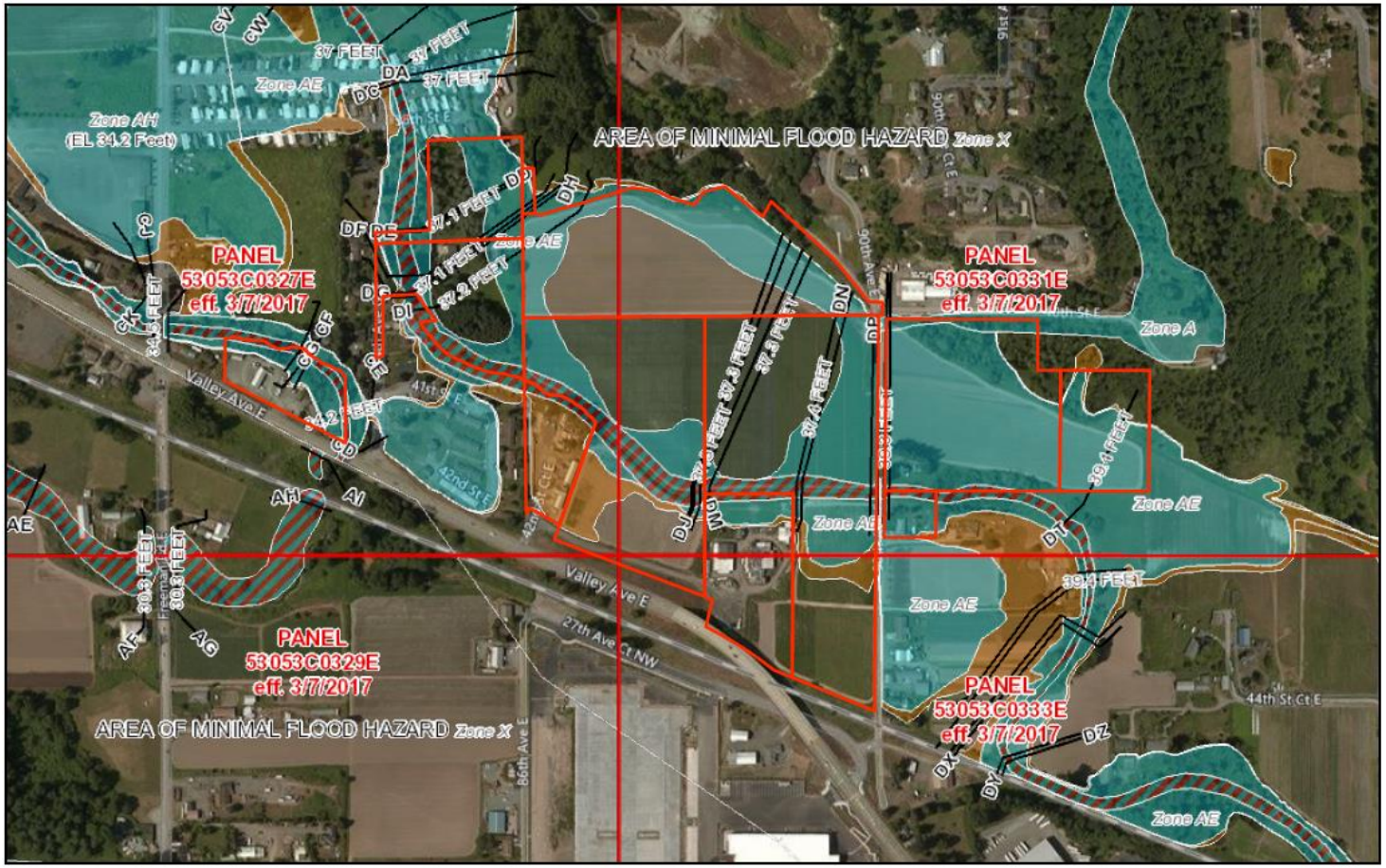
5.1.2 Floodplains

A floodplain is the lowland adjacent to surface water bodies such as lakes or rivers. Much of the project site is located within the FEMA 100-year floodplain in the lowlands surrounding Wapato and Simons creeks, see ***Figure 5.2.*** A portion of the project site is located within the Special Flood Hazard Area (SFHA) Zones AE and X associated with Wapato and Simons creeks (***Figure 5.2***).

The Pierce County Open GeoSpatial Data Portal shows base flood elevations (BFE) on the project site range from 34 to 42 feet above sea level. Surveyed elevations indicate that there is a shallow overflow route between stream basins that occurs on the west side of the site, with a BFE of 37.2 feet above sea level and an existing grade of 36.8 feet.

EMC 14.20.010(49) defines the regulatory floodway as "*The channel of a river or other watercourse and the adjacent land areas that must be reserved to convey and discharge the base flood without cumulatively increasing the water surface elevation by more than one foot, and those areas designated as deep and/or fast-flowing water."* Procedures and regulations for development within a regulated floodplain are provided in EMC Chapter 14.80, Flood Hazard Areas.

Figure 5.2: FEMA Flood Hazard Map



5.1.3 Watershed

A watershed is a land area that drains rainfall and snowmelt to rivers, streams, and creeks that eventually flow to a common outlet such as reservoirs, bays, and the ocean (National Oceanic and Atmospheric Administration, 2025). The project site is located in the northwest portion of the Puyallup – White Watershed, or Water Resource Inventory Area (WRIA) 10, within the Hylebos Creek-Frontal Commencement Bay sub-basin. WRIA 10 is defined as the area that drains to the Puyallup, White, and Carbon rivers, which originate on Mount Rainier. The existing site drains both north towards Simons Creek and south towards Wapato Creek. As the streams leave the project site to the northwest, they are each contained within a vegetated channel. Simons Creek is routed through a 48-inch culvert as it passes under 37th Street Court East. Wapato Creek also passes under 37th Street Court East but is routed through a box culvert. The two (2) streams converge into one (1) (Wapato Creek) approximately 0.15-miles northwest of the project site before flowing under 36th Street East in a 96-inch culvert. Wapato Creek then flows north and west approximately 0.18-miles to the Freeman Road crossing which consists of a 12-foot-9-inch by 9-foot-2-inch ellipse culvert. Wapato Creek then meanders through the City of Fife to the west, south, and east, turning back into Edgewood briefly before flowing south into Puyallup and west back into Fife, flowing in a general northwest direction, eventually discharging to Commencement Bay.

The Washington State Department of Ecology's Puget Sound Watershed Characterization Project compares areas within a watershed for restoration and protection value. The project site is located in assessment unit 10138. This area is classified as having high overall water flow importance level indicating the area has characteristics that maintain one (1) or more of the key watershed processes (delivery, surface storage, recharge, and discharge). The area is also classified as having high overall waterflow degradation indicating human activities such as development of impervious surfaces are likely to disrupt or degrade watershed processes (Washington State Department of Ecology, 2016).

5.2 Environmental Impacts

5.2.1 No Action Alternative

Under the No Action Alternative, no development of the site would occur, and existing land uses would continue on the site. These land uses include discontinued agricultural uses and associated residences all of which have been demolished leaving the project site as vacant land. It is assumed no new direct impacts to surface water would occur under the No Action Alternative.

5.2.1.1 Impacts to Wetlands and Streams

Under the No Action Alternative, existing low functioning wetland and stream buffer areas would remain, as no enhancement or restoration would occur. It is anticipated that existing wetland hydrologic regimes will be maintained. Current levels of sedimentation and other water quality impacts (unauthorized water withdrawals, litter, etc.) to onsite wetlands and streams will continue.

Under the No Action Alternative, the project site would remain vacant. The vacant site contains minimal impervious surfaces from prior agricultural and residential uses and would generate minimal stormwater runoff. Stormwater runoff would not be treated and best management practices to control and prevent sedimentation would not occur.

5.2.2 Impacts Common to Both Action Alternatives

5.2.2.1 Impacts to Wetlands and Streams

The development of either Action Alternative would result in both temporary and long-term impacts to surface water.

Temporary Impacts

- Construction impacts: Temporary impacts associated with construction under both Action Alternatives include increased potential for erosion and potential for vegetation disturbance.
- Stream shading: A short-term decrease in stream shading is anticipated, which may cause water temperatures to rise, but shading will increase in the long-term as the proposed new plantings mature.

Long-Term Impacts

- Increased impervious surfaces: Increases in impervious surfaces can change hydrologic dynamics through decreased infiltration and evapotranspiration and corresponding increased surface water runoff. Increased impervious surfaces can increase frequency and severity of flooding and accelerate channel erosion and streambed substrate disturbance. The increase in PGIS will increase the amount of surface runoff into the streams and wetlands; however, the proposed stormwater systems will filter sediment, hydrocarbons, and metals that may accumulate on roadways, and attenuate peaks in runoff flow rates before it is discharged to wetland and stream buffers.
- Stormwater effects (6PPD): 6PPD is a chemical used in the fabrication of automobile tires. As tires are worn on the road and in parking lots, they leave micro deposits and small chunks of tire material behind. The increase in human activity and specifically vehicular traffic through the project site may increase the amount of 6PPD discharged or filtered into the restored riparian corridor on the south and west of the project site, therefore impacting water quality. The stormwater from the project site will be routed through onsite stormwater facilities before discharging into the wetland and stream buffers. However, without appropriate treatment of runoff, 6PPD-quinone levels may increase in the onsite streams as compared to existing conditions.

5.2.3 Action Alternative 1

Action Alternative 1 includes the fill or partial fill of approximately 77,200 SF (1.77 acres) of seven (7) onsite Category II wetlands (Wetland A, D2, F1, F2, G, H, and I) and one (1) Category IV wetland (Wetland J). Action Alternative 1 also includes the realignment of Wapato Creek along the southern portion of the project site (approximately 3,000 linear feet). The relocation of Wapato Creek would result in the removal of nine (9) existing culverts ranging in sizes from 30 to 60 inches and the installation of two (2) bottomless stream crossings: one (1) located along the realigned portion of Wapato Creek and one (1) located over Simons Creek. Seven (7) of the existing culverts to be removed are located along the existing alignment of Wapato Creek and the remaining two (2) are located along Simons Creek. The removal of one (1) of the culverts within Simons Creek will daylight an additional 41 linear feet of the channel located in the northern portion of the site, which may improve water quality.

5.2.3.1 Wetland and Stream Impacts

In addition to the impacts applicable to both Action Alternatives, the following impacts to surface water may occur with development of Action Alternative 1.

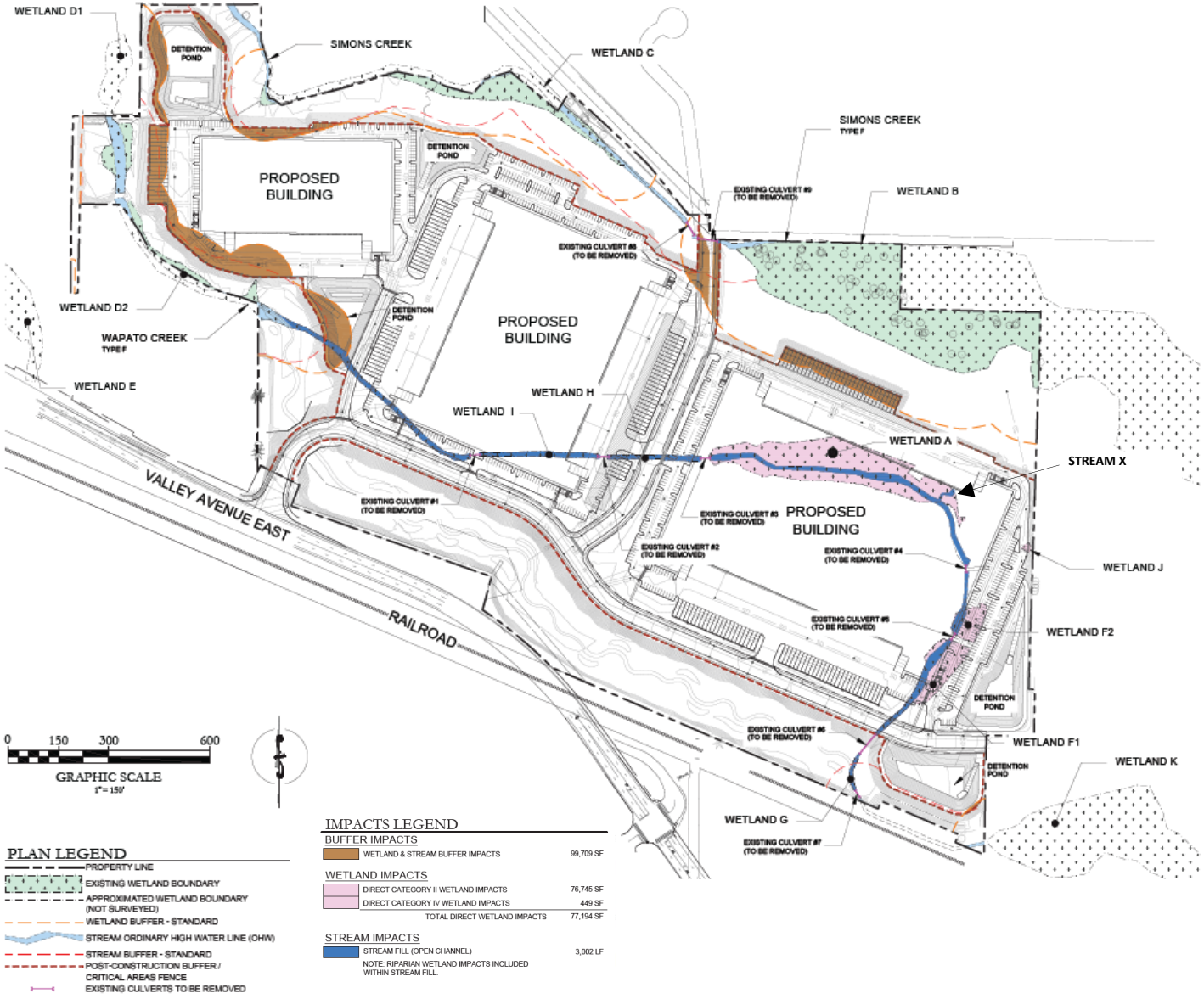
- Temporary turbidity: Site clearing, grading, and the movement of the banks of Simons Creek being pulled back to accommodate wetland creation, may result in temporary turbidity increases in the new and existing stream channels. This is likely to occur during the rewatering of the new stream channel for Wapato Creek.
- Stream and wetland fill: Fill of existing stream and wetland habitat will result in the immediate loss of existing surface water and aquatic habitat.

The proposed project under Action Alternative 1 will result in unavoidable wetland, stream, and buffer impacts. Neither stream buffer reduction nor wetland buffer averaging provide enough relief due to their location and the presence of several other critical areas on the project site. The proposed project will preserve the full on-site reach of Simons Creek and the higher functioning Category II wetlands (Wetland B, C, D1, and the majority of D2) are proposed to be preserved but will have impacted buffers. ***Table 5.2*** provides a summary of the critical area impacts associated with Action Alternative 1.

Table 5.2: Action Alternative 1 Critical Area Impacts

Critical Area Impacts		
Critical Area	**Existing Area Onsite**	**Direct Impact Areas**
Wetland Fill	303,309 SF (6.96 acres)	77,194 SF (1.77 acres)
Wapato Creek and Stream X	3,783 linear feet	3,002 linear feet
Wetlands and Stream Buffers	NA	99,709 SF (2.29 acres)

Figure 5.3: Action Alternative 1 Impacts Overview



5.2.3.2 Floodplain Impacts

The proposal requires fill within the floodplains for stream relocation and construction of the proposed buildings and site improvements. Approximately one-fourth (1/4) of the total fill will occur in Simons Creek (approximately 20,000 CY) and the remaining three-fourths (3/4) will occur in Wapato Creek (approximately 60,000 CY). ***Figure 5.4*** depicts the existing flood conditions and an existing flood storage volume of 79,473 cubic yards. ***Figure 5.5*** depicts the proposed flood conditions after development of the proposal and a proposed flood storage volume of 79,512 cubic yards. The Hydrologic and Hydraulic Study concluded that there will be a slight increase in flood storage volume and therefore the FEMA base flood elevation will likely not increase.

One (1) existing 48-inch culvert proposed for removal, which is located at 90th Avenue East, is the cause for the existing hydraulic grade jump in FEMA elevations. This hydraulic grade jump will be eliminated with the removal of this existing culvert.

Figure 5.4: Existing Onsite Flood Conditions

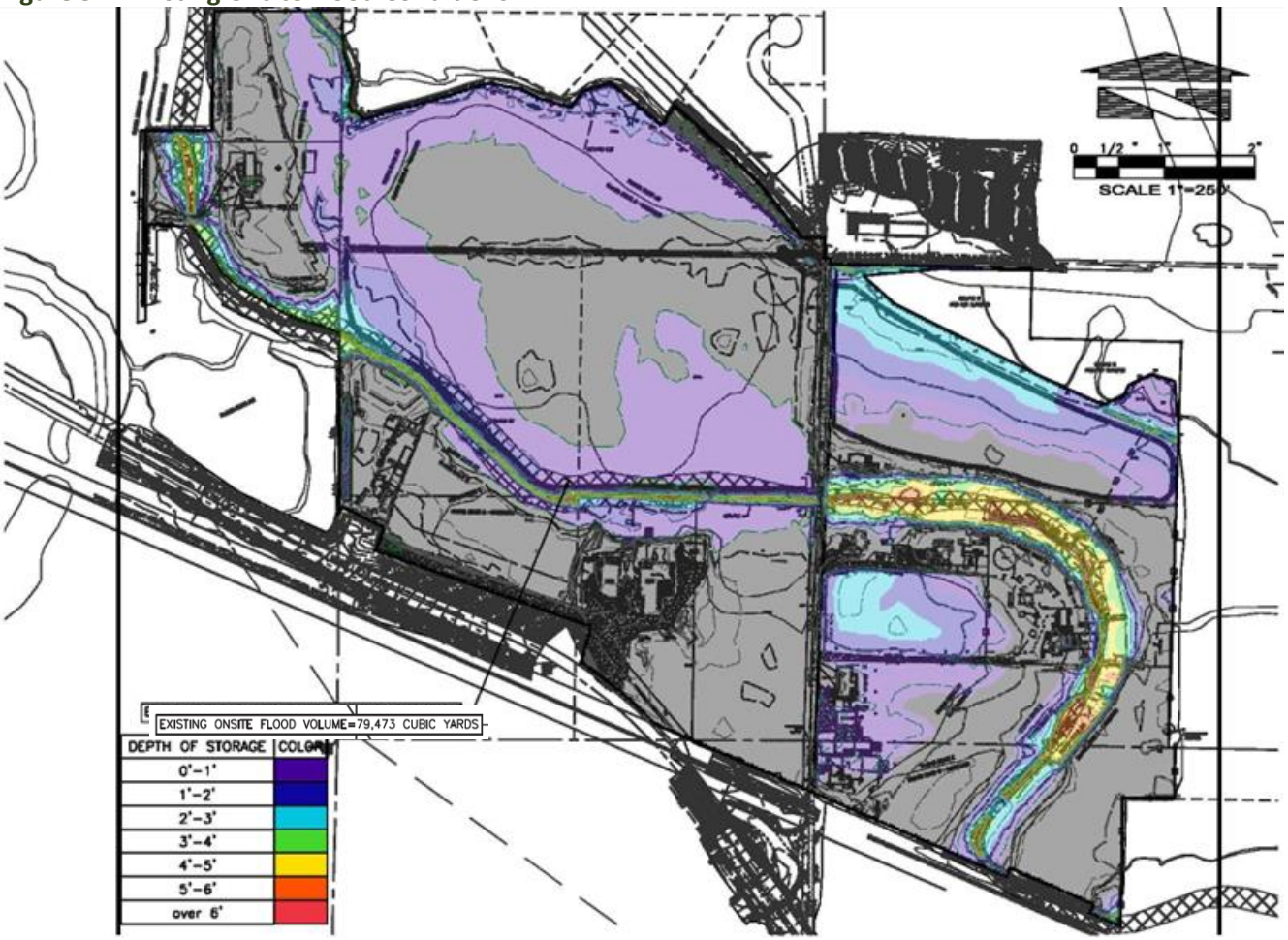
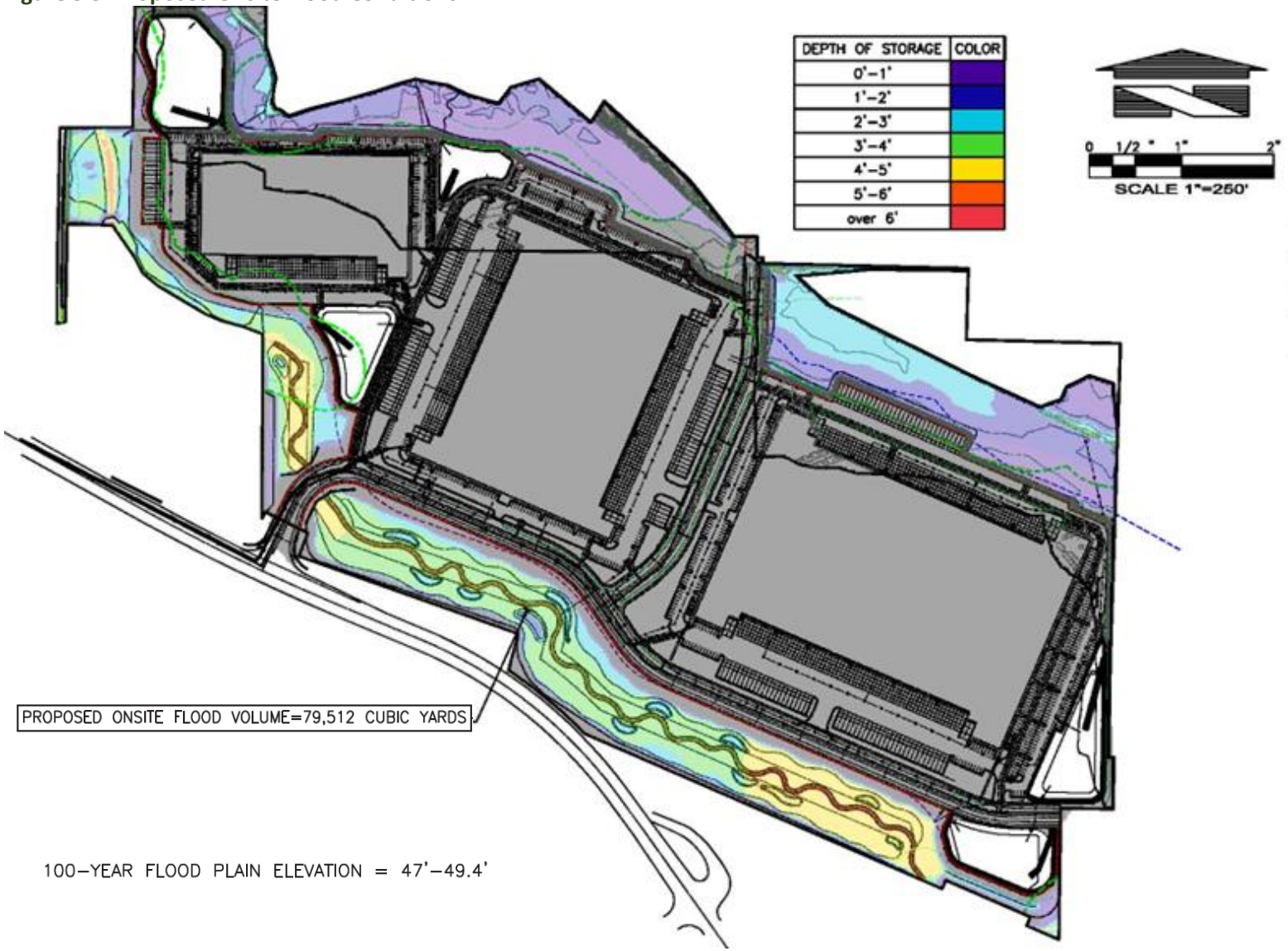


Figure 5.5: Proposed Onsite Flood Conditions



5.2.4 Action Alternative 2

Action Alternative 2 proposes to maintain the existing alignment of Wapato Creek but remove several undersized culverts along Wapato Creek and Simons Creek and replace them with two (2) new bottomless crossings over Wapato Creek. The proposal intends to avoid direct impacts to onsite critical areas by utilizing all developable upland areas onsite primarily between Wapato Creek and Simons Creek. Complete avoidance is not possible while facilitating site development due to the encumbrance of several onsite wetlands and straightened stream and associated buffers. Given the extensive critical areas onsite, it is not feasible to move the entire development outside of the FEMA Protected Area. As such, permanent impacts to stream and wetland buffers are unavoidable with development proposed under Action Alternative 2.

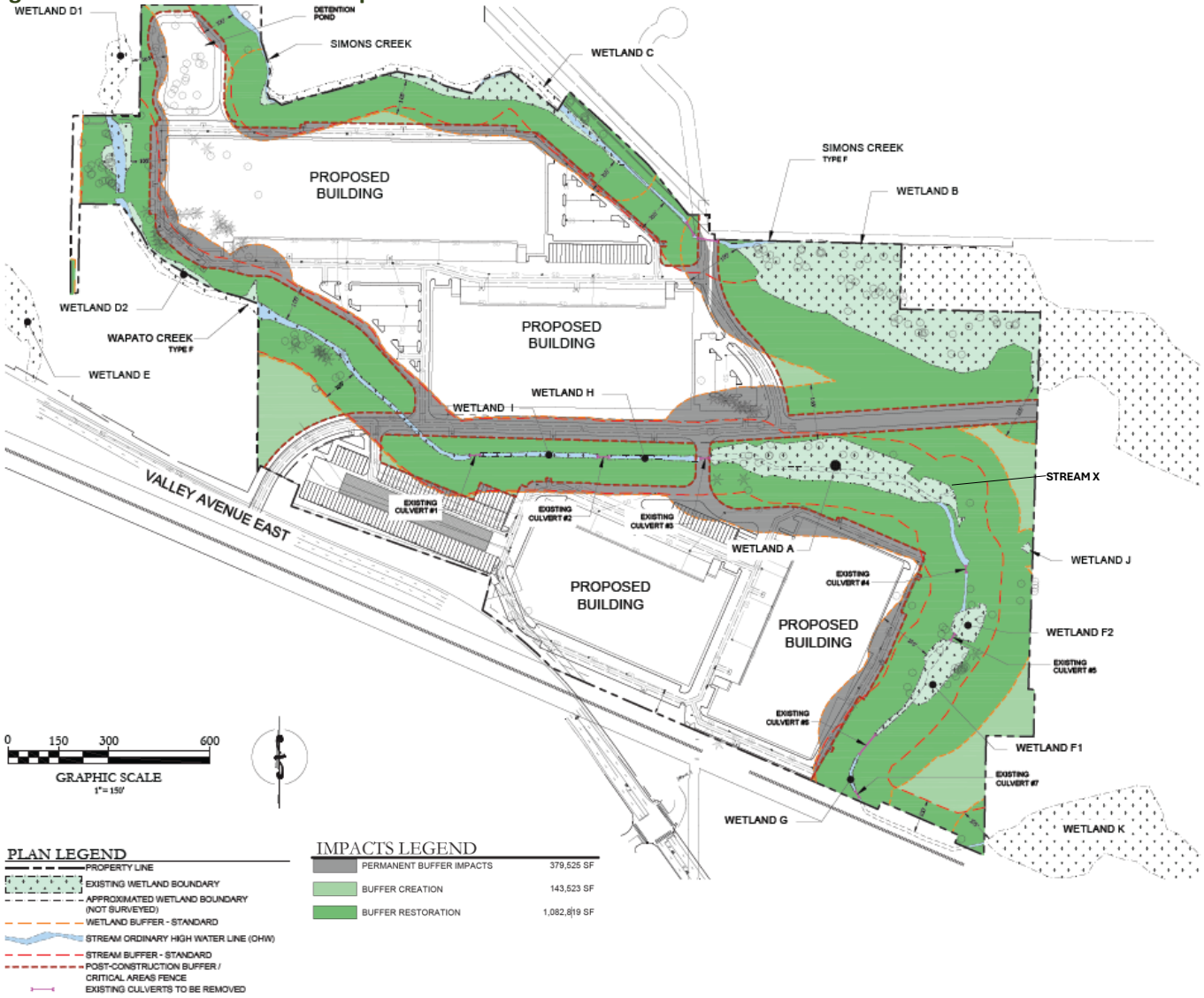
5.2.4.1 Wetland and Stream Impacts

In addition to the impacts applicable to both Action Alternatives, the following impacts to surface water may occur with development of Action Alternative 2.

- Temporary turbidity: Increases in turbidity within Simons Creek are likely to occur during construction activities and buffer restorations.
- Permanent impacts to stream and wetland buffers**:** Stream and wetland buffer impacts are unavoidable under the proposed Action Alternative 2 development, however, no direct impacts to wetlands and streams are proposed.

The proposed development under Action Alternative 2 would result in permanent impacts to approximately 404,526 SF (9.29 acres) of wetland and stream buffers (***Figure 5.6***). Action Alternative 2 would compensate for impacts through a combination of buffer creation of approximately 104,692 SF (2.4 acres) and buffer restoration of approximately 989,861 SF (22.72 acres) on the project site.

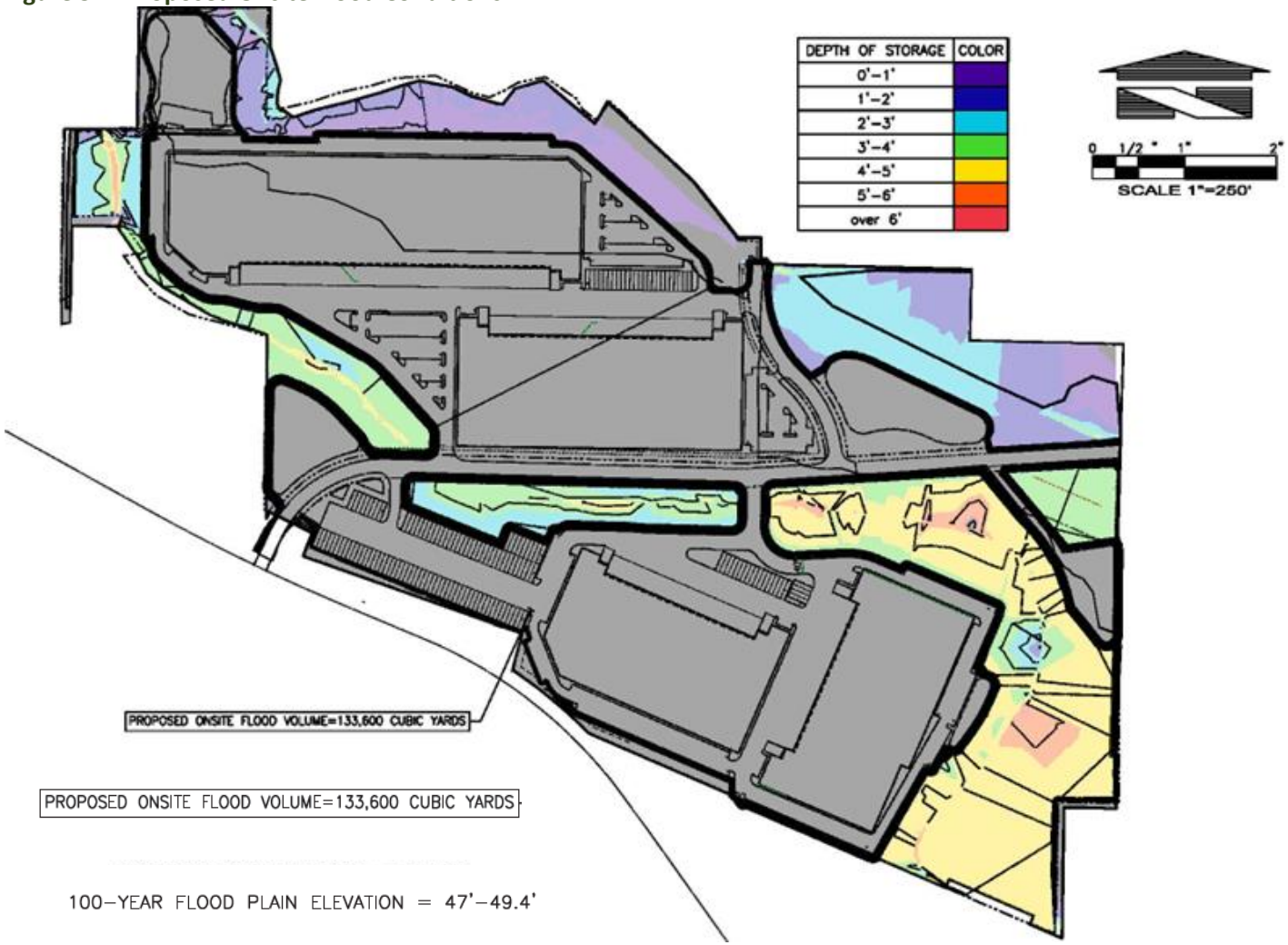
Figure 5.6: Action Alternative 2 Impacts Overview



5.2.4.2 Floodplain Impacts

The proposal requires fill within the floodplains for construction of the proposed buildings and site improvements. Approximately one-fourth (1/4) of the total fill will occur in Simons Creek (approximately 20,000 cubic yards) and the remaining three fourths (3/4) will occur in Wapato Creek (approximately 60,000 cubic yards). ***Figure 5.4*** depicts the existing flood conditions, with an existing flood volume of approximately 79,473 cubic yards. ***Figure 5.5*** depicts the proposed flood conditions after development of the proposal, with a proposed flood volume of 133,600 cubic yards. The Hydrologic and Hydraulic Study concluded that there will be an increase in flood storage volume as a result of the proposal and therefore the FEMA base flood elevation will not likely increase.

Figure 5.7: Proposed Onsite Flood Conditions



5.3 Mitigation Measures

The proposed mitigation measures outlined below are based on the best available science for this specific project site and were also informed by the Washington State Department of Ecology recommendations on mitigation measures for 6PPD.

5.3.1 Common to Both Action Alternatives

5.3.1.1 Wetlands and Streams Mitigation

The existing critical area buffers proposed to be impacted under both Action Alternatives are currently degraded and provide minimal buffer function. In comparison to the existing conditions, the proposed buffer creation and restoration actions are anticipated to improve ecological function on site and within the greater watershed area.

Proposed mitigation under both Action Alternatives includes removal of invasive plant species such as Himalayan blackberry and reed canarygrass and replacement with native plantings, which will provide a restored habitat function and improved hydrology of the impacted streams and wetlands. Installation of native trees and shrubs will allow for infiltration of runoff, minimizing the pollutants and sediments entering both Wapato and Simons Creeks. Additional mitigation measures are shown in ***Table 5.3***.

Table 5.3: Wetland Impact Minimization Measures

Disturbance	Mitigation Measure
Lights	• Direct lights away from wetlands.
Noise	• Locate activity that generates noise away from wetlands. • For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10-foot heavily vegetated buffer strip immediately adjacent to the activity.
Toxic Runoff	• Route all new, untreated runoff away from wetlands while ensuring wetlands are not dewatered. • Establish covenants limiting use of pesticides within 150 feet of wetlands. • Apply integrated pest management.
Stormwater Runoff	• Retrofit stormwater detention and treatment for roads and existing development. • Prevent channelized flow from lawns that directly enters the buffer. • Use Low Impact Development (LID) techniques.
Change in Water Regime	• Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.
Pets and Human Disturbance	• Use privacy fencing; plant dense native vegetation to delineate buffer edge and discourage disturbance using vegetation appropriate for the ecoregion. • Place wetlands and associated buffers in separate tracts or protect with a long-term conservation easement.
Dust	• Use best management practices to control dust.

In addition, Wapato Creek, Simons Creek, and Stream X are classified as Type F (fish-bearing) streams subject to standard 100-foot buffers per EMC 14.50.030(A). Due to the salmonid presence in the onsite streams, they are also regulated as Fish and Wildlife Habitat Conservation Areas (FWHCAs) per EMC 14.50.020. Additionally, a 15-foot building setback is required from the edge of all critical area buffers per EMC 14.10.070(D)(1).

Both Action Alternatives would implement best management practices (BMPs) during all phases of project development. LID techniques would be utilized to address stormwater runoff impacts. During construction, runoff will be minimized by constructing temporary stormwater ponds. All new stormwater from the proposed development will be routed to stormwater ponds for water quality treatment before being dispersed into buffer areas. All remaining onsite critical areas will be placed in separate tracts, and critical areas fencing and signage will be installed along the perimeter of all buffers to limit intrusion into the critical areas. A Temporary Erosion and Sediment Control (TESC) plan will be prepared by the Project Engineer and will detail the proposed BMPs and TESC measures that will be implemented.

5.3.1.2 Floodplain Mitigation

Both Action Alternatives will require a Zero-Rise Analysis at final engineering submittal including an analysis of the existing and proposed flood conditions with the provided compensatory storage, in compliance with EMC 14.80 Flood Hazard Areas.

5.3.1.3 Mitigation Sequencing

EMC 14.10.070(B) stipulates the adverse impacts caused by new activities and developments shall be mitigated using the following actions in order of priority:

1. Avoiding the impact altogether by not taking a certain action or parts of an action;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations;
5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
6. Monitoring the impact and the compensation project and taking appropriate corrective measures.

Proposed mitigation sequencing for each Action Alternative is discussed in the sections below.

5.3.2 Action Alternative 1

5.3.2.1 Wetland, Stream, and Buffer Mitigation

Action Alternative 1 proposes compensatory mitigation for direct impacts to the wetland and stream by the establishment of approximately 178,526 SF (4.1 acres) of wetland creation along Simons Creek and the relocated portion of Wapato Creek (2,711 linear feet). Proposed mitigation also includes establishment of 255,053 SF (5.86 acres) of non-compensatory wetland creation along Simons and Wapato creeks.

In addition, Action Alternative 1 proposes 38,566 SF of wetland and stream buffer creation along Wapato and Simons creeks (approximately 0.88 acres) and 354,196 SF of perimeter buffer (approximately 8.13 acres). The proposal also includes restoration of all remaining wetland and stream buffers on the project site (210,796 SF, approximately 4.84 acres). A new 200-foot riparian corridor is proposed for Wapato Creek, which will include native forest, shrub, and emergent plant communities, and will provide additional shading, ultimately cooling water temperatures. A media filter drain will be installed to treat runoff from the adjacent railroad.

Stormwater will be collected in five (5) detention facilities on site and will be discharged through outlets to Wapato Creek or Simons Creek, using a controlled release process. The proposal will utilize stormwater treatments that are designed to meet or exceed City's adopted stormwater manual, EMC Chapter 13.05, as well as the 2024 Ecology Stormwater Management Manual for Western Washington Standards for the purpose of 6PPD and the utilization of Best Available Science. The system will consist of enhanced water quality treatment through stormwater detention, before being dispersed or infiltrated into a restored riparian corridor on the south and west sides of the project site. Stormwater runoff from all impervious surfaces associated with the proposal will be treated through the enhanced water quality system for the removal of any metals.

Turbidity Mitigation

A Water Quality Plan and Fish Protection Plan for the Wapato Creek relocation associated with Action Alternative 1 will be prepared. The rewatering occurring in separate sections to reduce the amount of the channel being exposed at a time. Compliance will be evaluated through water quality monitoring during rewatering.

Floodplain Mitigation

Compensatory flood storage will be provided at a ratio of one to one (1:1) for all work within the 100-year floodplain identified by FEMA and will result in a net gain in ecological functions compared to existing conditions.

5.3.2.2 Mitigation Sequencing

1. **Avoiding the impact altogether by not taking a certain action or parts of an action.**
   The project was designed to avoid direct impacts to the onsite critical areas to the greatest extent feasible by utilizing all developable upland areas. However, avoidance is not possible in order to facilitate site development due to the encumbrance of several onsite wetlands and the previously straightened stream and associated buffers that bisects the majority of the project site, while providing the City required frontage road, vehicle circulation and fire access, required onsite improvements and the spatial requirement to support modernized distribution and logistical facilities. Due to land availability and project area site constraints and logistical factors, the Prologis Park Project Area is the only available site in the geographic area that can fulfill the Applicant's project need and purpose (see Section 2.1).

2. **Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts.**
   The proposed wetland, stream, and associated buffer impacts are the minimum necessary to incorporate the required industrial infrastructure for the proposed layout. The building sizes and orientations have been strategically designed under the Applicant's preferred alternative (Action Alternative 1) to conform to the shape and size of the project site to minimize impacts to the higher functioning Category II wetlands (Wetland B, C, D1, and the majority of D2).

   The proposed project is anticipated to provide a net lift in stream channel function when compared to existing degraded conditions. Currently, little to no functional buffer exists and the previously existing agricultural fields extended to the stream bank along most of the channel.

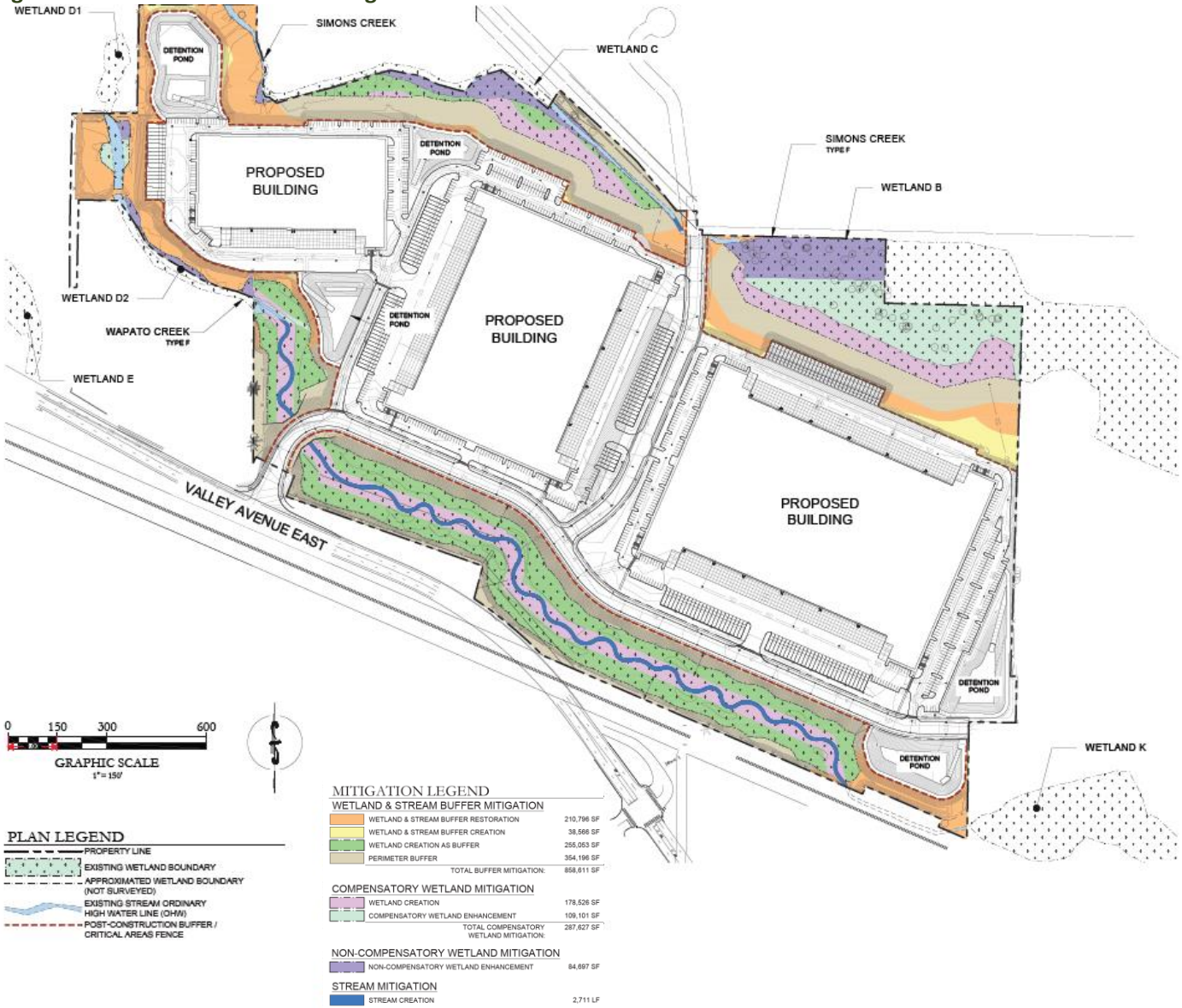
3. **Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.**
   The unavoidable wetland, stream, and buffer impacts will be rectified through several onsite, in-kind compensatory and non-compensatory mitigation measures, further described in sections 5.3.1.1 and 5.3.2.1 above. Compensatory mitigation for the unavoidable direct wetland and stream impacts will be provided through stream channel relocation/restoration of Wapato Creek and wetland creation along Simons Creek and the relocated portion of Wapato Creek. Undersized culverts will be removed and replaced with appropriately sized culverts and/or crossings along Wapato Creek and Simons Creek. Non-compensatory wetland creation is proposed along Simons Creek, the relocated Wapato Creek, and Wetlands B and C. Compensatory flood storage will also be provided at a one to one (1:1) ratio for all work proposed within the FEMA 100-year floodplain. The project is anticipated to result in a net gain in ecological functions when compared to the existing degraded conditions of the critical areas that are proposed to be impacted.

4. **Reducing or eliminating the impact over time by preservation and maintenance operations.**
   The wetland creation and stream channel relocation areas will be monitored for a period of 10 years, and the general enhancement and restoration actions and culvert installation actions for a period of five (5) years. All remaining onsite critical areas will be placed in separate tracts or easements as a permanent protective mechanism.

5. **Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.**
   The unavoidable wetland, stream, and buffer impacts will be rectified through onsite, in-kind mitigation measures described in number 3 above, as well as in Sections 5.3.1.1 and 5.3.2.1 above.

6. **Monitoring the impact and the compensation project and taking appropriate corrective measures.**
   The wetland creation and stream channel relocation areas will be monitored for a period of 10 years, and the general enhancement and restoration actions and culvert installation actions for a period of five (5) years per EMC 14.10.090(B)(4).

Figure 5.8: Action Alternative 1 Mitigation Overview



5.3.3 Action Alternative 2

5.3.3.1 Wetland and Stream Buffer Mitigation

Action Alternative 1 proposes compensatory mitigation for direct impacts to the wetland and stream buffers through a combination of buffer creation of approximately 104,692 SF (2.4 acres) and restoration of approximately 989,861 SF (22.72 acres) on the project site. Stream buffer impacts associated with the proposal will be mitigated by exceeding the one to one (1:1) required ratio per EMC 14.40.060(E) and providing a 3.23:1 ratio for buffer impacts. The buffer creation is likely to improve ecological conditions and protection of the critical areas by removing and performing ongoing control and maintenance of non-native invasive species and planting native species. Native species will be protected by dry-season irrigation, as necessary. The planting of a variety of native trees allows for runoff to infiltrate, creates cooler water temperatures, and helps to remove sediment and pollutants from surface runoff entering both Wapato and Simons Creeks. The bottomless crossing installation and replacement will be monitored for a five-year period as required by EMC 14.20.090(B)(4) and will meet or exceed WDFW's stream simulation design criteria per the 2013 Water Crossing Design Guidelines (Barnard, 2013).

5.3.3.2 Mitigation Sequencing

1. **Avoiding the impact altogether by not taking a certain action or parts of an action.**
   The project was designed to avoid direct impacts to the onsite critical areas to the greatest extent feasible by utilizing all developable upland areas. Over 15 potential site layout options were assessed, including wetland buffer averaging and stream buffer reduction, however, these options were determined infeasible to meet the layout needs to accommodate the Applicant's goals. Avoidance is not possible in order to facilitate site development due to the encumbrance of several onsite wetlands and the previously straightened stream and associated buffers that bisects the majority of the project site, while providing the City required frontage road, vehicle circulation and fire access, required onsite improvements and the spatial requirement to support modernized distribution and logistical facilities.

2. **Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts.**
   The proposed wetland and stream buffer impacts are the minimum necessary to incorporate the required industrial infrastructure for the proposed layout. The building sizes and orientations have been strategically designed under Action Alternative 2 to conform to the shape and size of the project site to minimize impacts and will entirely avoid direct impacts to onsite critical areas, except for permanent buffer impacts.

   The proposed project is anticipated to provide a net gain in ecological function when compared to existing and degraded conditions. Currently, little to no functional buffer exists and the previously existing agricultural fields extended to the stream bank along most of the channel.

3. **Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.**
   The unavoidable wetland and stream buffer impacts will be rectified through onsite buffer creation and buffer restoration, further described in Sections 5.3.1.1 and 5.3.3.1 above. Buffer restoration of existing buffers will be utilized to meet and exceed the one to one (1:1) required ratio for buffer impacts per EMC 14.40.060(E). Undersized culverts will be removed and replaced with appropriately sized culverts and/or crossings along Wapato Creek and Simons Creek. Compensatory flood storage will also be provided at a one to one (1:1) ratio for all work proposed within the FEMA 100-year

floodplain. The project is anticipated to result in a net gain in ecological functions when compared to the existing degraded conditions of the buffers that are proposed to be impacted.

4. **Reducing or eliminating the impact over time by preservation and maintenance operations.**
   The buffer creation, buffer restoration, and bottomless crossing installation actions will be monitored for a period of five (5) years. All remaining onsite critical areas will be placed in separate tracts or easements as a permanent protective mechanism.

5. **Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.**
   The unavoidable wetland and stream buffer impacts will be rectified through onsite, in-kind mitigation measures described in number 3 above, as well as in Sections 5.3.1.1 and 5.3.3.1 above.

6. **Monitoring the impact and the compensation project and taking appropriate corrective measures.**
   The buffer creation, buffer restoration, and bottomless crossing installation actions will be monitored for a period of five (5) years.

5.4 Significant Impact Determination

Under both Action Alternatives, proposed mitigation will enhance native vegetation through buffer creation and restoration to onsite streams and wetlands and associated buffers, improving overall ecological function compared to the existing degraded conditions.

Despite these beneficial impacts, the increased vehicle traffic combined with the inability to infiltrate onsite and the need to discharge surface water may lead to the increased presence of toxicants, namely 6PPD, in downgradient waters into the restored riparian corridor on the south and west of the project site, therefore impacting water quality. The stormwater from the site will be routed through onsite stormwater facilities before discharging into the wetland and stream buffers. However, without appropriate treatment of runoff, 6PPD-quinone levels may increase in the onsite streams as compared to existing conditions.

There are studies underway in the region looking at improved treatment methods that might effectively remove 6PPD from surface water, thereby protecting at-risk aquatic life. With such improved technology, it may be possible to implement enhanced surface water treatment facilities that incorporate the methods currently being studied which would provide mitigation for these impacts. The best available science from the Washington State Department of Ecology acknowledges the potential impacts of 6PPD, and metrics to evaluate these impacts are ongoing. However, there is inadequate information at this time to provide a clear answer as to whether such methods would successfully mitigate these impacts, in whole or in part, or if they might have some unforeseen impact(s) on plants or other wildlife under the worst-case scenario. As such, this environmental review determined that there could be **significant adverse impacts** to surface water under both Action Alternatives that could not be minimized, reduced, or eliminated with implementation of the earlier mitigation measures described above.

This project, under both Action Alternatives, is subject to United States Army Corps of Engineers federal permitting, per the Clean Water Act Sections 401 and 404 (regulates activities that may result in discharge into waters of the Unites States). Federal permitting requirements may result in additional mitigation measures and/or a change in impact determination.

In addition to the impacts above, the direct impacts to onsite wetlands and streams through fill and relocation proposed under Action Alternative 1 will result in **significant adverse impacts** to surface water

that might not be minimized, reduced, or eliminated with implementation of the mitigation measures described above.

6. Groundwater

This chapter describes how implementation of the Action Alternatives could impact the groundwater quality in the vicinity of the project site compared to the No Action Alternative. Groundwater is the water found in a saturated zone beneath the ground surface. This chapter describes the hydrogeologic conditions, groundwater, and critical aquifer recharge areas on and in the vicinity of the project site. This chapter is in part based on the *Geotechnical Report* prepared by Terra Associates, Inc, dated May 28, 2021 and revised June 13, 2025. A copy of the *Geotechnical Report* is attached as Appendix C.

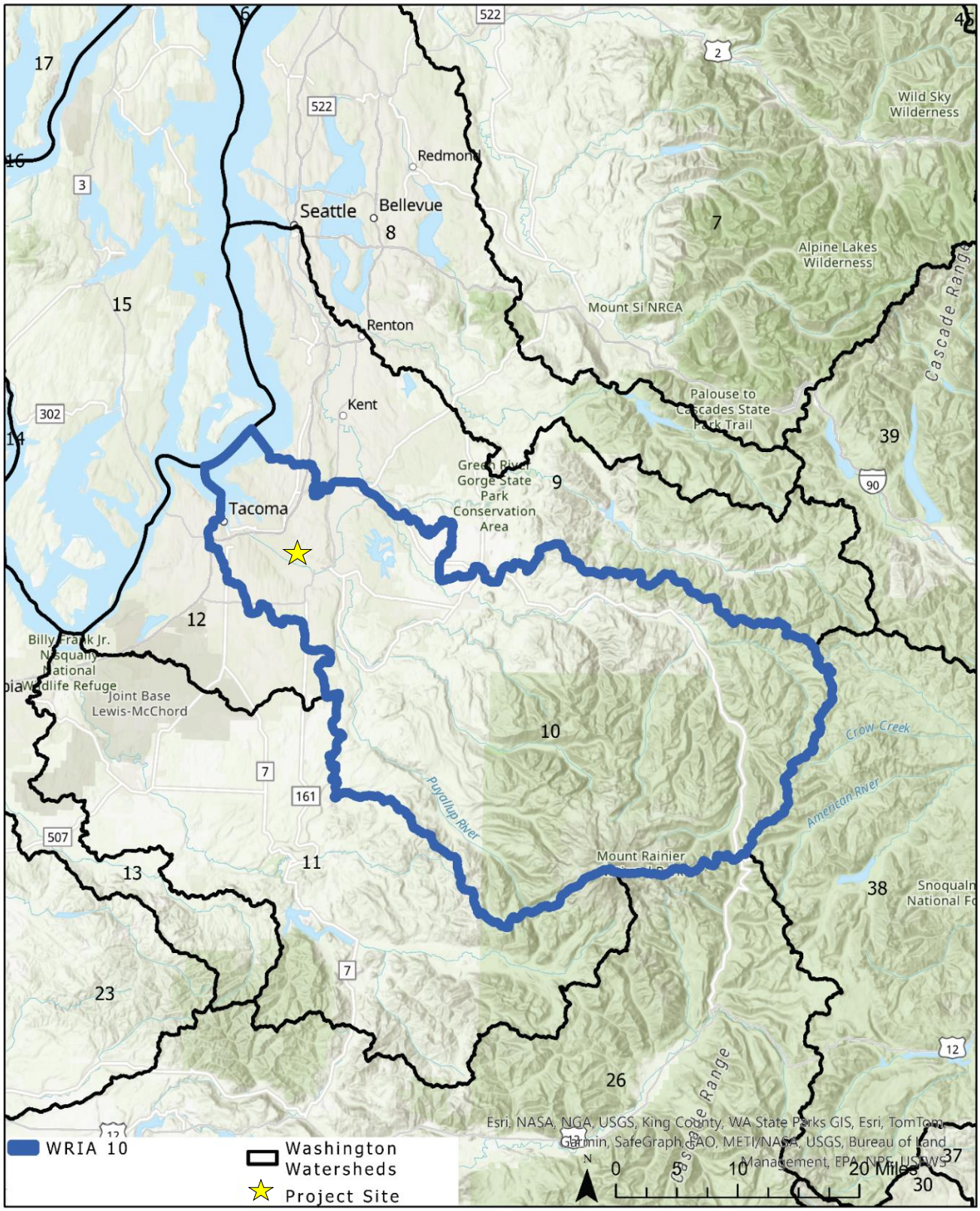
6.1 Affected Environment

The affected environment includes the aquifer recharge area and the shallow groundwater on and within the vicinity of the project site.

6.1.1 Hydrogeologic Setting

The project site is located in the northwest portion of the Puyallup – White Watershed, or Water Resource Inventory Area (WRIA) 10. WRIA 10 is defined as the area that drains to the Puyallup, White, and Carbon rivers, which originate on Mount Rainier. The Puyallup and White rivers' major tributaries are the Carbon, Clearwater, Greenwater, and Mowich rivers (Washington State Department of Ecology, 2022).

Figure 6.1: Water Resource Inventory Area (WRIA) 10

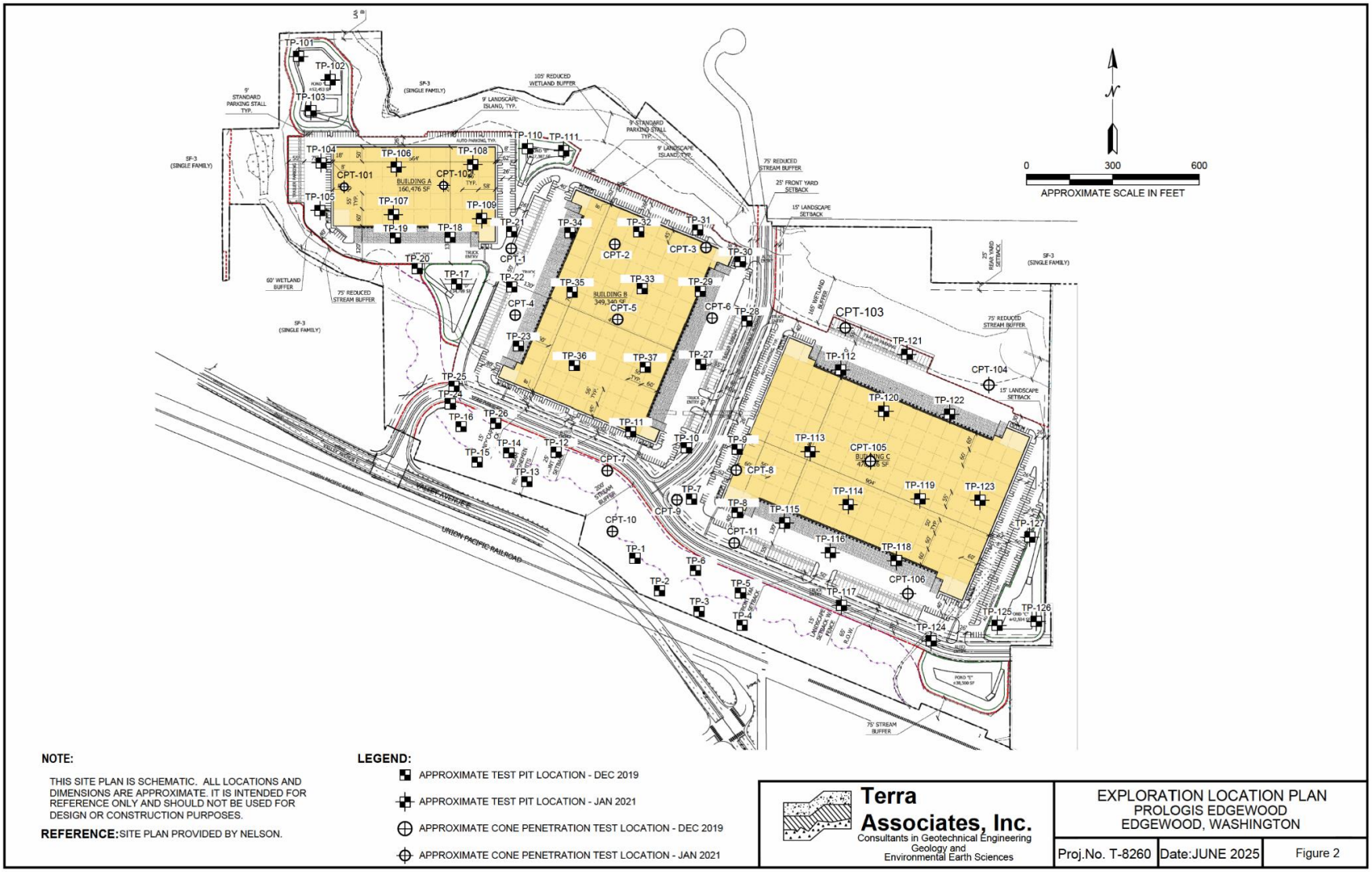


6.1.2 Groundwater Levels

Groundwater levels on the project site were recorded during subsurface exploration which was conducted in two phases. In December 2019 subsurface exploration observed conditions in 37 test pits (TPs), dug to maximum depths of approximately eight (8) to 12 feet using a track-mounted excavator and conducting 11 cone penetration tests (CPTs) to depths ranging from approximately 44 to 60 feet below existing site grades. In January 2021, excavation of an additional 27 TPs to depths of approximately six (6) to 10 feet below existing site grades using a track-mounted excavator as well as six (6) additional CPTs to depths ranging from approximately 40 to 100 feet below existing site grades. See ***Figure 6.2*** for CPT and TP locations.

In most TPs groundwater seepage was not observed due to the very fine nature of the soils and significant, rapid caving of the TPs; however, observations of wet soils below depths of approximately one (1) to five (5) feet indicates a water table that is typically much higher than the observed seepage levels. Groundwater seepage on the project site was found in 22 of the 64 TPs and was generally light and occurring below depths of four (4) to six (6) feet. Heavy seepage from water-bearing sand below depths of seven (7) feet was observed in TP-14 and below nine (9) feet in TP-32. Hydrostatic levels determined from pore pressure dissipation testing at six (6) of the 17 CPT locations ranged between depths of 1 and 3.9 feet in the north building area to depths of 3.4 and 7.6 feet in the south building area.

Figure 6.2: Test Pit and Cone Penetration Test Location



NOTE:

THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE: SITE PLAN PROVIDED BY NELSON.

LEGEND:

- APPROXIMATE TEST PIT LOCATION - DEC 2019
- APPROXIMATE TEST PIT LOCATION - JAN 2021
- APPROXIMATE CONE PENETRATION TEST LOCATION - DEC 2019
- APPROXIMATE CONE PENETRATION TEST LOCATION - JAN 2021

Terra Associates, Inc.
Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

EXPLORATION LOCATION PLAN
PROLOGIS EDGEWOOD
EDGEWOOD, WASHINGTON

Proj.No. T-8260 | Date:JUNE 2025 | Figure 2

6.1.3 Critical Aquifer Recharge Areas

The majority of the project site is within a critical aquifer recharge area. These areas have a critical recharging effect on groundwater used for potable water supplies and/or that demonstrate a high level of susceptibility or vulnerability to groundwater contamination from land use activities. EMC 14.60.020 (effective April 20, 2021) classifies the following as critical aquifer recharge areas.

1. Aquifer recharge areas, which are the boundaries of the two (2) highest DRASTIC zones that are rated 180 and above on the DRASTIC index range, as identified in Map of Groundwater Pollution Potential, Edgewood, Washington, National Water Well Association, U.S. Environmental Protection Agency (EPA).[9]
2. Wellhead protection areas, as defined in EMC Chapter 14.20.
3. Sole source aquifers, which are areas that have been designated by the EPA pursuant to the Federal Safe Drinking Water Act. As of the effective date of EMC Title 14, there are no designated sole source aquifers within city limits.

EMC 14.20.010(B) defines wellhead protection areas as those within the 10-year time-of-travel zone boundary or zone of contribution area of a Group A (15 connections or higher) public water system well, as delineated on the critical aquifer recharge areas critical area map (***Figure 6.3***), pursuant to WAC 246-290-135. The travel time zones represent the length of time it would take a particle of water to travel from the zone boundary to the well. A zone of contribution is the area that supplies groundwater to a well.

Critical aquifer recharge areas and wellhead protection areas are subject to EMC Chapter 14.60 which provides additional standards for the permitted activities and uses within these areas. Prohibited uses include landfills, underground injection wells, metals mining, wood treatment facilities, pesticide manufacturing, and petroleum refining/storage facilities. As shown in ***Figure 6.3*** and ***Figure 6.4***, the majority of the project site is within a critical aquifer recharge area and portions of the project site are within wellhead protection areas. A small portion of the northeast corner of the project site is within 6-month, 1-year, and 5-year travel time wellhead protection areas. A larger portion of the northeast corner of the project site is within the zone of contribution.

[9] The DRASTIC index range takes into account factors including depth to water table, net recharge, aquifer media, soil media, topography, impact of the vadose zone and hydraulic conductivity of the aquifer.

Figure 6.3: Critical Aquifer Recharge Area

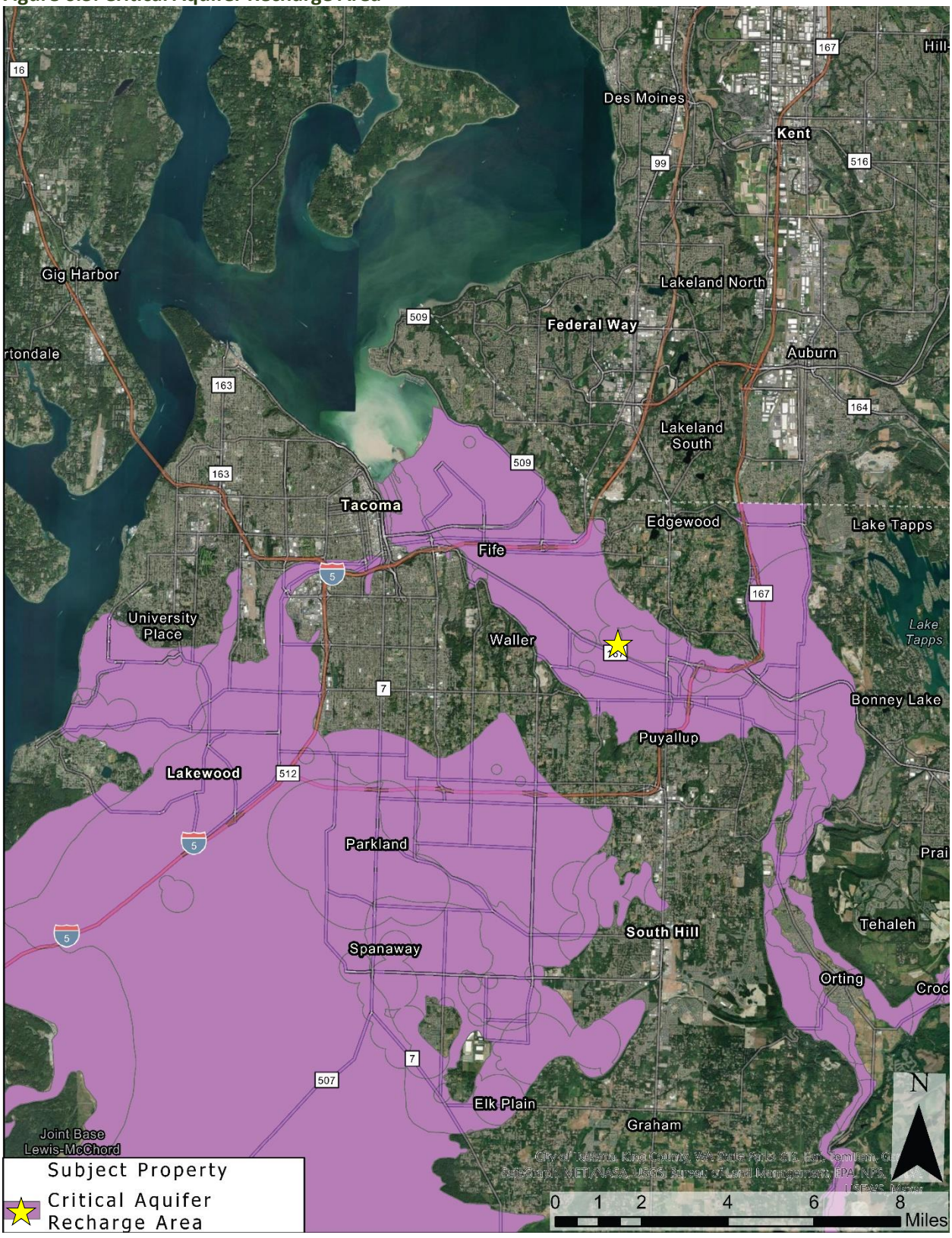
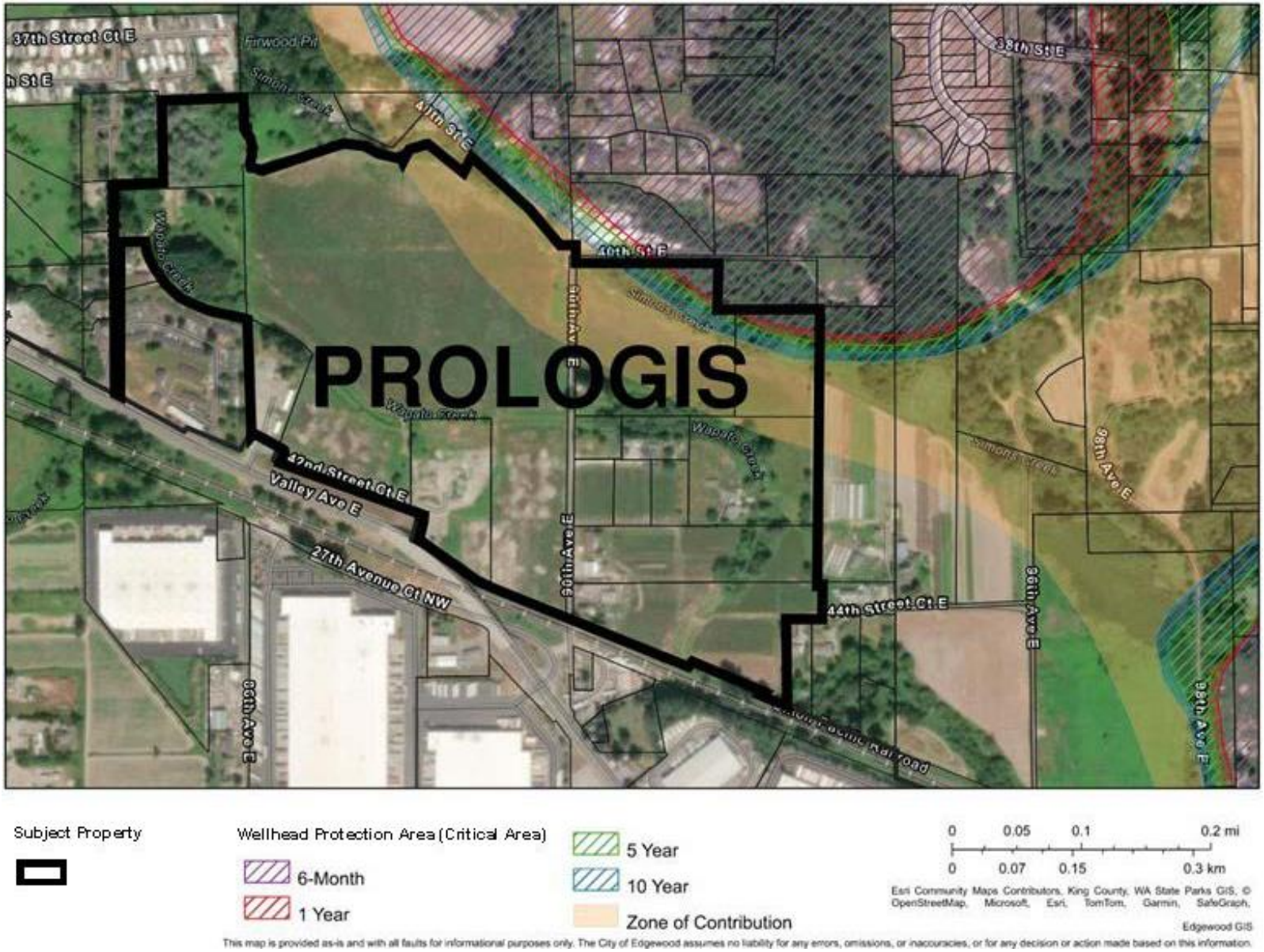


Figure 6.4: Wellhead Protection Area



6.2 Environmental Impacts

6.2.1 No Action Alternative

Under the No-Action Alternative, no development of the site would occur, and it is assumed the existing site would remain vacant. No significant adverse impacts to groundwater are expected to occur under the No Action Alternative.

6.2.2 Impacts Common to Both Action Alternatives

Development has the potential to change the amount of groundwater recharge. This is primarily tied to the management of stormwater runoff and addition of impervious surfaces. It is anticipated that the Action Alternatives will impact the groundwater environment of the project site.

Groundwater Storage Impacts

Due to the shallow groundwater levels, it is anticipated groundwater will be encountered during deeper site and utility excavations. The shallow groundwater levels are anticipated to have an adverse impact on the live-storage volumes of the proposed stormwater ponds. Additionally, fluctuating stored water levels of the stormwater detention ponds may impact soils that are above the dead storage elevation on the interior slopes within the sides of the stormwater ponds. Potential impacts to these soils include periodic risk of shallow instability or sloughing, which can be significantly reduced or eliminated with the establishment of interior slopes at a three to one (3:1) gradient.

Critical Aquifer Recharge Area Impacts

The specific tenants are unknown, however both Action Alternatives have anticipated uses that are a combination of high cube/fulfillment center uses with warehouse facilities and/or industrial park with warehouse facilities. The anticipated uses are not listed as prohibited uses within critical aquifer recharge areas per EMC Chapter 14.60. Additionally, no groundwater will be withdrawn for drinking or other purposes. No adverse impacts to critical aquifer recharge areas are expected as a result of either Action Alternative.

6.3 Mitigation Measures

6.3.1 Mitigation Measures Common to Both Action Alternatives

6.3.1.1 Geotechnical Mitigation

The *Geotechnical Report* (Appendix C) identifies mitigation measures to address the potential impacts of shallow groundwater levels on live-storage volumes of the stormwater ponds. Due to the existing shallow groundwater levels, the typical construction method of cutting loading dock areas and using the excavated materials to establish dock-high elevations will not be feasible as the loading dock ramps would extend below the water table. Properly mitigating this condition will require raising floor grades with structural fill so that the loading dock pavement grade can be established at existing surface elevations, as well as permanent subgrade drainage to mitigate potential pavement impacts.

It is anticipated that temporary dewatering measures to lower the groundwater table will be required to assist in establishing stable subgrades during construction. Additionally, it is recommended that site earthwork and grading occur during late summer or early fall, when groundwater levels should be at their lowest elevations.

6.3.1.2 Edgewood Municipal Code Requirements

Under EMC 14.60.040 Critical Aquifer Recharge Areas Standards, all regulated activities that are prohibited or not exempt under the provisions of EMC Chapter 14.60 shall ensure sufficient groundwater recharge. In order to achieve sufficient groundwater recharge, the Applicant shall comply with the City's adopted stormwater manual, EMC Chapter 13.05, and demonstrate that the total post-development infiltration rate for the project area will be equal to or better than the predevelopment rate. The proposed developments in both Action Alternatives do not include prohibited uses per EMC 14.60.040(B) or land use and activities exemptions per EMC 14.60.040(C) with the exception or sewer lines and appurtenances.

Under EMC 14.60.040(E) Nonhazardous Uses, all commercial and industrial sites or activities that do not include or involve hazardous substance processing or handling in critical aquifer recharge areas are allowed subject to the standards for nonhazardous uses as outlined in EMC 14.60.040(E)(1-7). The proposed development under both Action Alternatives does not include or involve hazardous substance processing of handling, however the Applicant has identified potential hazards from construction activities and ongoing use of herbicides, pesticides, and fertilizers (Appendix S). The project shall demonstrate compliance with EMC Chapter 14.60 and all the critical aquifer recharge area standards contained in EMC 14.60.040(E) for nonhazardous uses at the time of site development and building permits.

Under, EMC 14.60.040(F) Hazardous Uses – Storage Tanks, aboveground and belowground storage tanks require submittal of a hydrogeologic assessment in accordance with EMC 14.60.030 and compliance with storage tank standards contained EMC 14.60.040. In addition, underground storage tanks require storage tank permits from the appropriate local and state agencies in accordance with EMC 14.60.030(C). The Applicant has not indicated whether the proposed development would use aboveground or belowground storage tanks. If proposed, compliance with EMC Chapter 14.60 and applicable local and state permitting would be required.

To ensure compliance with EMC Title 14 Critical Areas, and specifically, EMC Chapter 14.60 Aquifer Recharge and Wellhead Protection Areas, the Applicant shall record a title notification for all properties within the project site in accordance with EMC 14.10.070 at the time of the land use decision. The notice shall identify that the site is within a critical aquifer recharge area as regulated under EMC Title 14 and outline any land use restrictions and standards contained in EMC Chapter 14.60. In accordance with EMC Chapter 14.60, the Applicant shall ensure sufficient groundwater recharge. In order to achieve sufficient groundwater recharge, the Applicant shall comply with the City's adopted stormwater manual, EMC Chapter 13.05, and demonstrate prior to site development permit issuance that the total post-development infiltration rate for the project area will be equal to or better than the predevelopment rate.

6.4 Significant Impact Determination

This environmental review has determined that any adverse impacts to groundwater that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures described above, including recommendations identified in the *Geotechnical Report* (Appendix C) and compliance with the regulations contained in EMC Title 14 Critical Areas.

7. Plants and Animals

This chapter describes how implementation of either of the Action Alternatives could impact plants and animals in the vicinity of the project site compared to the No Action Alternative. The discussion includes descriptions of the plants and animal species in the vicinity of the project site and potential impacts to these species from site development.

This chapter is based on the following reports and technical letter prepared by Soundview Consultants LLC:

- *FEMA Habitat and Biological Assessment (Alternative 2 – Preferred)* dated January 22, 2021, and revised January 2025 (Appendix J)
- *FEMA Habitat Assessment (Alternative 3)* dated January 17, 2025 (Appendix K)
- *Conceptual Mitigation Plan (Alternative 2 – Preferred),* dated November 2020 and revised January 2025 (Appendix L)
- *Conceptual Mitigation Plan (Alterative 3),* dated December 2023 and revised August 2024 (Appendix M)
- *Certified Arborist Report and Tree Retention Plan, Prologis Park Edgewood – Alternative 2 (Preferred)*, dated August 23, 2024 (Appendix T)
- *Certified Arborist Report and Tree Retention Plan*, *Prologis Park Edgewood – Alternative 3*, dated August 23, 2024 (Appendix U)
- *6PPD Technical Letter dated June 5, 2025 (Appendix N)*

This chapter is also based on the following memo prepared by Raedeke Associates, Inc.:

- *Prologis Park – Draft EIS Support and Review,* dated February 23, 2023 (Appendix E)

7.1 Affected Environment

The affected environment includes the entire project site and the vicinity, to encompass any potential project impacts on surrounding plants and animals. The project site has three (3) streams: Wapato Creek, Simons Creek, and Stream X, all of which are classified as Type F (fish-bearing) streams. The project site also contains 11 onsite wetlands of which nine (9) are Category II, one (1) is Category III, and one (1) is Category IV. The affected environment is determined by the established Action Areas described below.

7.1.1 Action Areas

7.1.1.1 Overall Action Area

The overall Action Area is characterized by the 448-linear-foot terrestrial noise radius (transmitted through air) and the 100-linear-foot downstream impacts to both Wapato Creek and Simons Creek due to the temporary impacts of increased turbidity and/or sedimentation from project actions for both Action Alternatives. The Action Area for each of the Action Alternatives is shown in ***Figure 7.1*** and ***Figure 7.2***.

Figure 7.1: Action Alternative 1 Action Area

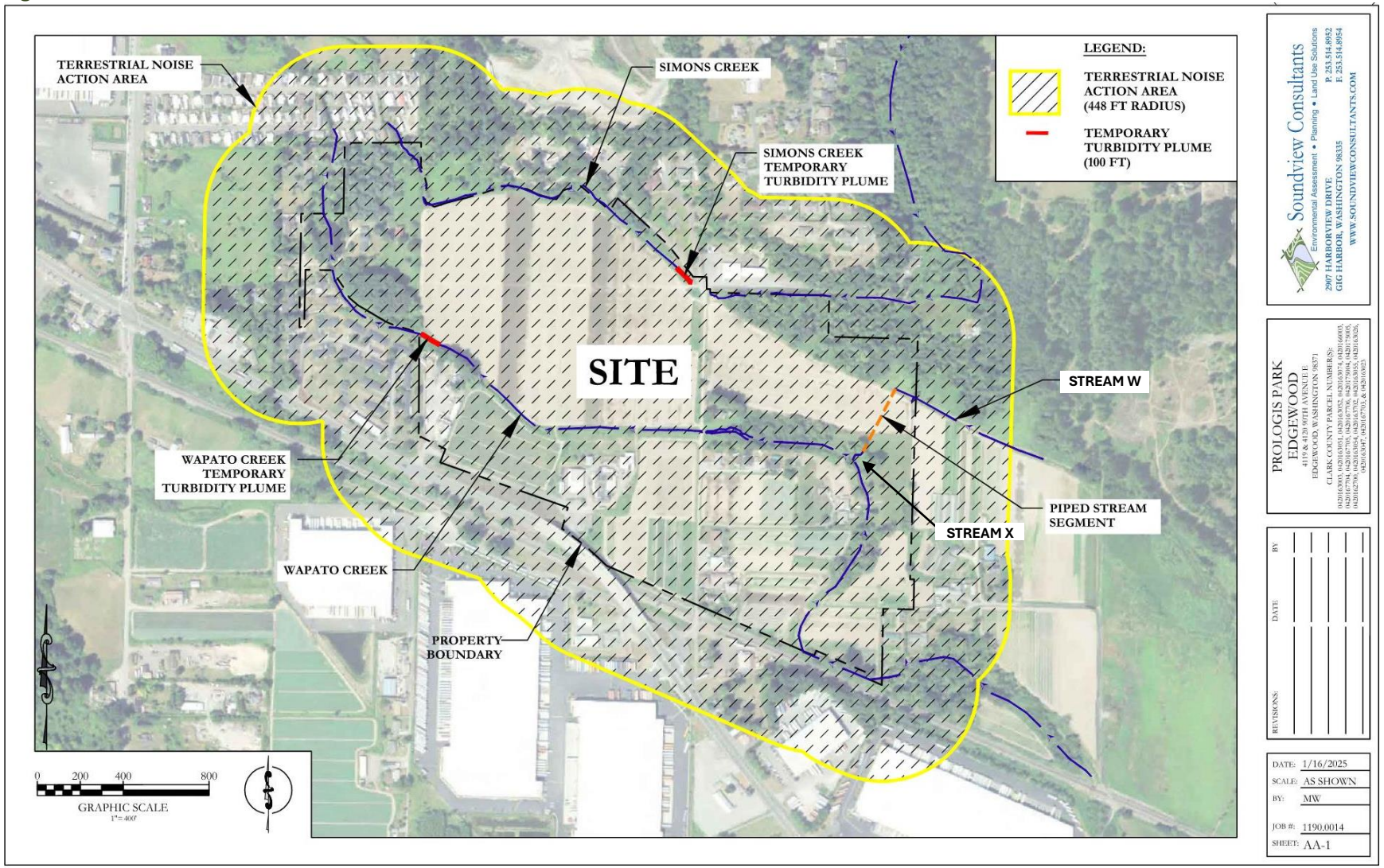
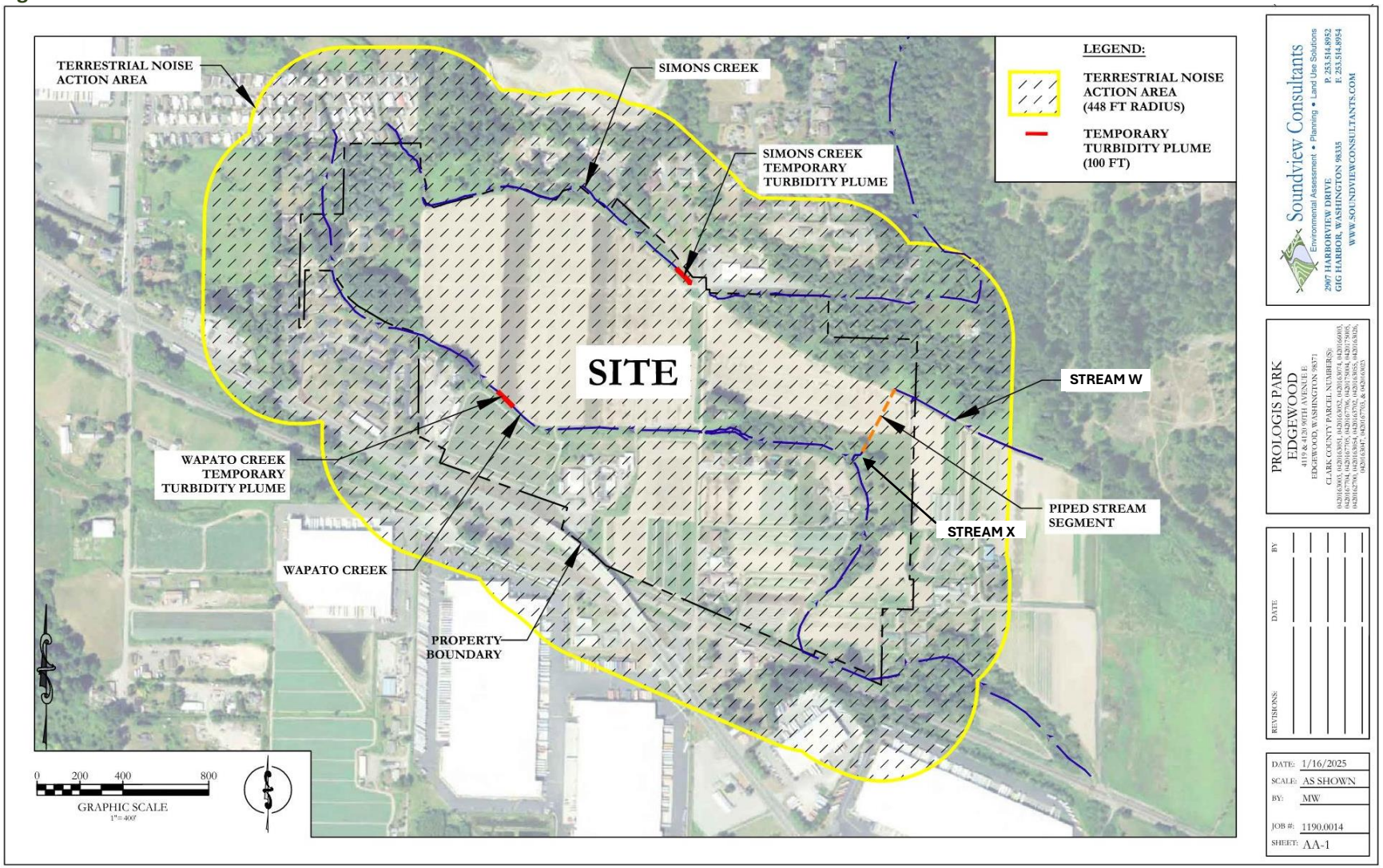


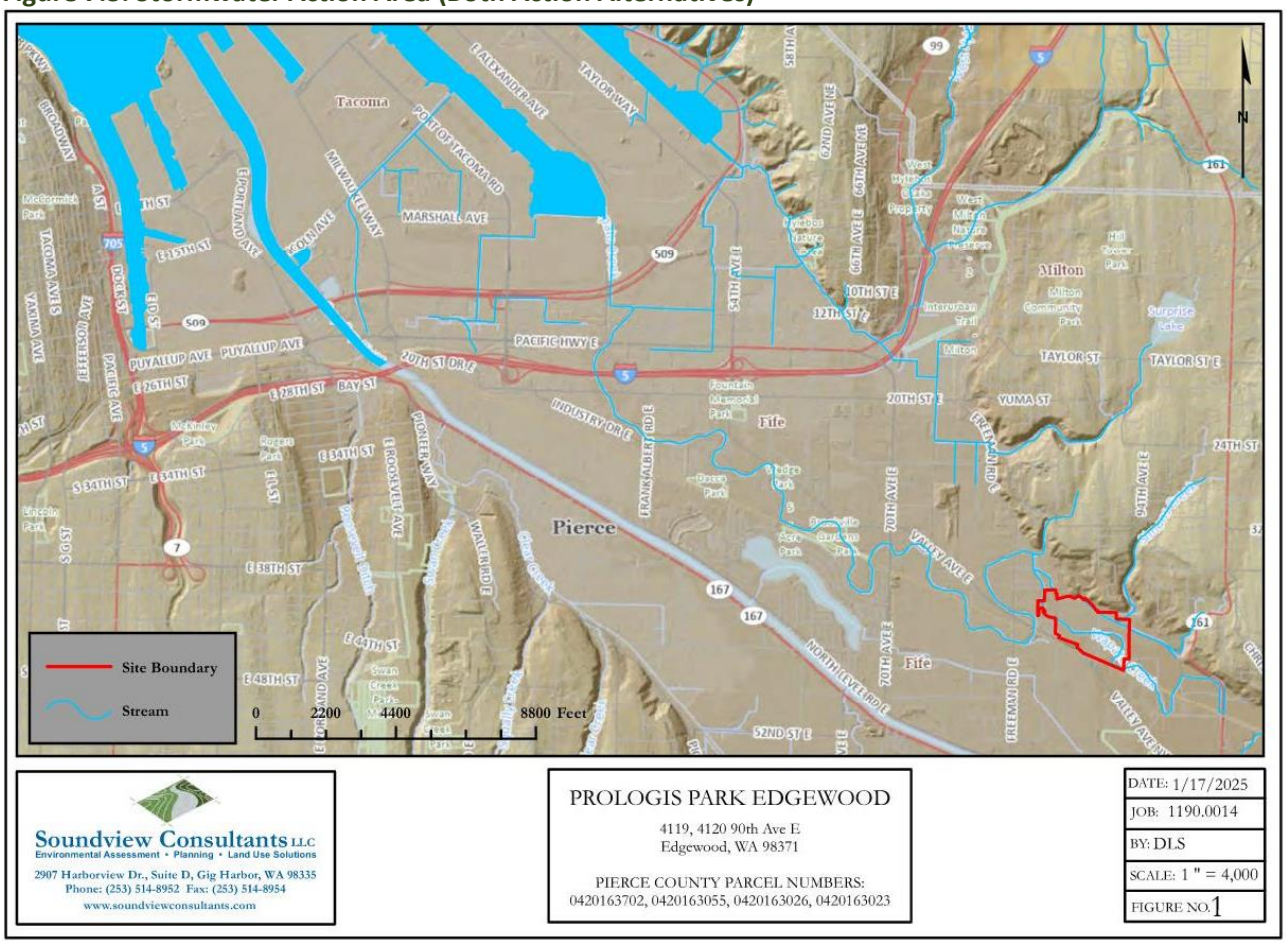
Figure 7.2: Action Alternative 2 Action Area



7.1.1.2 Stormwater Action Area

The proposed development under both of the Action Alternatives includes significant increases in impervious surface areas, which leads to increases in peak flow rates and total quantity of stormwater runoff. Stormwater from all impervious surfaces will pass through an onsite stormwater management system and be dispersed and/or discharged into a restored riparian corridor on the south and west sides of the project site. Due to the total amount of stormwater proposed to be released from the proposed detention ponds, the Action Area for stormwater is extended to the Puget Sound for both Action Alternatives (see ***Figure 7.3***).

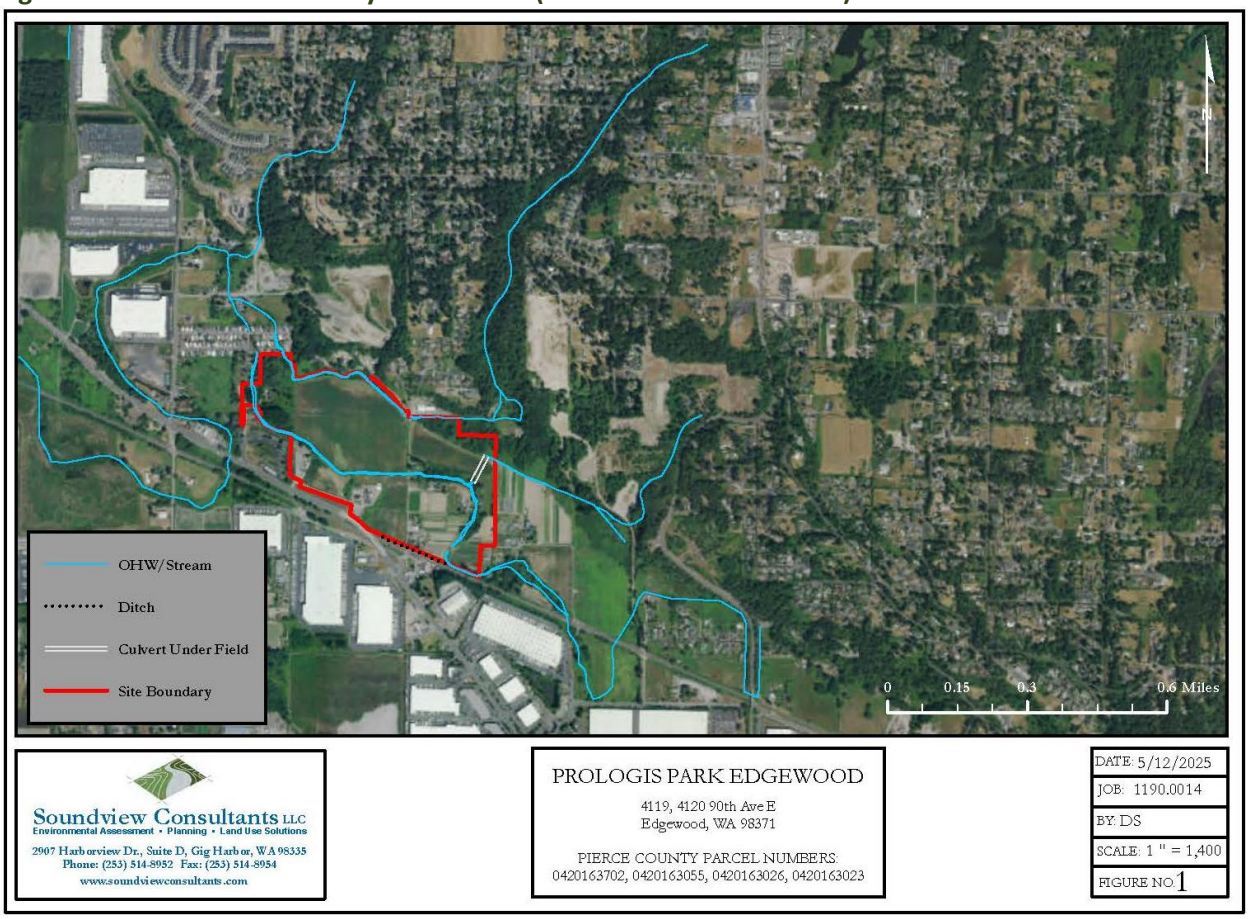
Figure 7.3: Stormwater Action Area (Both Action Alternatives)



7.1.1.3 Habitat Accessibility Action Area

Under both Action Alternatives the proposal includes the removal of undersized culverts and replacement with appropriately sized culverts and/or crossings along Wapato Creek and Simons Creek. Currently these channels are encumbered by undersized culverts that may have historically restricted or precluded salmonid passage. Replacement of these undersized culverts may provide fish species accessible passage to the upstream reaches of Wapato and Simons Creeks. The Habitat Accessibility Action Area for both Action Alternatives is shown in ***Figure 7.4***.

Figure 7.4: Habitat Accessibility Action Area (Both Action Alternatives)



7.1.2 Wildlife

7.1.2.1 Federally Endangered, Threatened, and Candidate Species

The National Oceanic Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service (USFWS), and the Washington Department of Fish and Wildlife (WDFW) identify threatened and endangered species listed under the *Endangered Species Act* (ESA) that may be found in Pierce County. The FEMA Habitat Assessments, prepared by Soundview Consultants and the Draft EIS Support and Review memo prepared by Raedeke Associates, note that the majority of these species are highly unlikely to be found on the project site or within the Action Area, as the project site is located in an urban mixed-use residential and agricultural setting where environmental conditions do not support the presence of these species. Further, no designated critical habitat for ESA-listed species is mapped within the Action Area. A complete list of the ESA listed species potentially found in Pierce County are shown in ***Table 7.1***. Additionally, the project site is within the Pacific Flyway migration route, a bird migration route through the Puget Sound region, and therefore may seasonally support migratory birds.

Table 7.1: ESA Listed Species Potentially Found in Pierce County

Species Name	Common Name	ESA Listing Status	Potential for Project Impact
Oncorhynchus mykiss	Steelhead Trout	Threatened	Potential
Oncorhyncus tshawytscha	Chinook Salmon	Threatened	Potential
Orcinus orca	Southern Resident Killer Whale	Threatened	Potential
Actinemys marmorata	Northwestern Pond Turtle	Proposed Threatened	None
Brachyramphus marmoratus	Marbled Murrelet	Threatened	None
Coccyzus americanus	Yellow Billed Cuckoo	Threatened	None
Eremophila alpestris strigata	Streaked Horned Lark	Threatened	None
Euphydryas editha taylori	Taylor's Checkerspot	Threatened	None
Salvelinus confluentus	Bull Trout	Threatened	None
Thomomys mazama glacialis	Roy Pocket Gopher	Threatened	None
Thomomys mazama pugetensis	Olympia Pocket Gopher	Threatened	None
Thomomys mazama tumuli	Tenino Pocket Gopher	Threatened	None
Thomomys mazama yelmensis	Yelm Pocket Gopher	Threatened	None
Danaus plexippus	Monarch Butterfly	Candidate Species	None
Bombus suckleyi	Suckley's Cuckoo Bumble Bee	Proposed Endangered	None

7.1.2.2 ESA Species Potentially Impacted by the Proposed Project

The project site and immediate vicinity contains three (3) Type F (fish-bearing) streams: Wapato Creek, Simons Creek, and an unnamed Stream X. There are two (2) ESA-listed species potentially present within the vicinity of the Action Area; Steelhead trout (Puget Sound Distinct Population Segment) and Chinook salmon. While the Puget Sound is located approximately 3.5 miles northwest of the project site, the southern resident killer whale is also considered for potential impacts as Chinook salmon provide a primary food source for the species.

Steelhead trout (Onochrhynchus mykiss)

Steelhead trout are documented in both Simons Creek and Wapato Creek. Steelhead trout are an anadromous species with lifespans of up to 11 years. Steelhead trout typically spend two (2) to three (3) years rearing in freshwater environments before migrating to marine ecosystems in late winter and spring. They can remain at sea for up to three (3) years before returning to spawn. The Puget Sound Steelhead trout distinct population segment (DPS) was listed as threatened due to the declines in abundance and productivity for most natural Steelhead trout populations.

Chinook salmon (Oncorhynchus tshawytscha)
Chinook salmon have potential to be present and have access to both Simons and Wapato creeks but are not documented in these areas. Chinook salmon are a semelparous species that return to natal streams to spawn during the summer and fall months. Adult Chinook salmon tend to move quickly through the Puget Sound when returning to natal streams to spawn. Chinook salmon bury their eggs in gravel substrate, and the alevins emerge three (3) months later between December and April. The NOAA's National Marine Fisheries Service (NMFS) has determined that Puget Sound Chinook salmon are an evolutionarily significant unit (ESU) that are at risk of becoming endangered in the foreseeable future.

Southern Resident Killer Whale (Orcinus orca)
The southern resident killer whale is found in open seas and coastal waters. The maximum lifespan is estimated to be 80-90 years for females and 50-60 years for males. The majority of the whales' diet consists of salmon, particularly the large and fatty Chinook salmon during the spring and summer months.

7.1.2.3 Other Species
The Washington Department of Fish and Wildlife (WDFW) uses the Priority Habitat Species (PHS) program to identify fish and wildlife that should be prioritized for conservation. The Washington State PHS web application identifies several federally listed and non-federally listed species as documented on or having access to the project site. The following PHS utilize critical areas on the project site.

- Pink Odd Year, Fall Chum, Fall Chinook, and Coho salmonids
- Winter Steelhead trout
- Waterfowl concentrations

The project site is also home to several birds and small mammals that are not protected species but still inhabit or have access through the project site.

7.1.3 Vegetation
Impacts to vegetation were analyzed within the boundaries of the project site. The project site is currently vacant with discontinued agricultural uses making up the majority of the project site, as well as small, forested areas in the northeast and northwest portions of the site. A small portion of the project site contains landscaping associated with discontinued residential uses.

Vegetation in the forested areas onsite primarily consists of wetland-associated species such as Pacific willow (Salix lasiandra), Scouler's willow (Salix scouleriana), Black cottonwood (Populus balsamifera), Red alder (Alnus rubra), Redosier dogwood (Cornus alba), and American skunk cabbage (Lysichiton americanus). Non-native, invasive Himalayan blackberry (Rubus armeniacus) and reed canarygrass (Phalaris arundinacea) are prevalent along the identified streams and wetlands on the project site. The Washington Natural Heritage Program (WNHP) does not identify any endangered or rare plant species on or within the vicinity of the project site (WNHP 2023).

Edgewood Municipal Code (EMC) Section 18.90.180(D)(1) (effective April 20, 2021) defines a significant tree as an existing tree that when measured at breast height has a minimum diameter of 12 inches. A tree survey conducted by Soundview Consultants LLC identified a total of 521 significant trees on the project site. Of these, 99 trees (19 percent) were classified as being in good condition, 293 trees (56 percent) in fair condition, 118 trees (23 percent) in poor condition, and 11 trees (2 percent) in dead, dying, or in hazardous condition.

7.2 Environmental Impacts

7.2.1 No Action Alternative

Under the No Action Alternative, no development of the site would occur, and existing land uses would continue on the site. These land uses include discontinued agricultural uses and associated residences (which have since been demolished), leaving the majority of the project site as vacant land. It is assumed no new direct impacts to plants and animals would occur under the No Action Alternative. Existing low functioning wetland and stream buffer areas would remain, as no enhancement or restoration would occur under the No Action Alternative. Under the No Action Alternative, it is expected that existing wetland hydrologic regimes will be maintained. Current levels of sedimentation and other water quality impacts (unauthorized water withdrawals, litter, etc.) to onsite wetlands and streams will continue.

7.2.1.1 Impacts to Wildlife

Under the No Action Alternative, no substantial changes to aquatic and fish habitats are expected, as existing land uses are expected to continue. Wildlife would be expected to continue to use the site as they do under current conditions.

The existing streams, wetlands, and their buffers have low species richness and are degraded by the presence of invasive species. No stream, wetland, or buffer enhancement will occur under the No Action Alternative. The existing silt and sand substrate, and invasive species within the onsite streams is not ideal spawning habitat. No spawning gravels will be added to the streams and invasive species will not be removed or maintained within the stream channels, and the lack of onsite buffers would persist. In addition, the nine (9) undersized culverts on Wapato Creek, which are potential barriers to fish passage, will remain.

7.2.1.2 Impacts to Vegetation

Vegetation would be expected to stay the same as current conditions if no development occurs. The existing poor condition, dead, dying, and hazardous trees on the project site would remain as well as the invasive vegetation along the streambanks.

7.2.2 Impacts Common to Both Action Alternatives

7.2.2.1 Impacts to Wildlife

The development of either Action Alternative would result in both temporary and long-term impacts to wildlife.

Temporary Impacts

- **Visual and noise disturbances:** Construction activities will cause a temporary increase in terrestrial noise levels above ambient levels. This may temporarily disrupt animal behavior, leading to avoidance of nearby habitats, abandonment of nest sites, reduced breeding success, and increased mortality. All proposed lighting will be directed away from wetlands and therefore visual impacts to aquatic species associated with lighting are not anticipated.

Long Term Impacts

Operational Impacts

- **Increased impervious surfaces**: Increases in impervious surfaces can change hydrologic dynamics through decreases in infiltration and evapotranspiration and corresponding increases in surface water runoff. Depending on the pollutant and concentration, the effects on fish species range from avoidance to mortality. Further increased impervious surfaces can increase frequency and severity of flooding and accelerate channel erosion and streambed substrate disturbance.

- **Stormwater effects (6PPD)**: 6PPD is a chemical used in the fabrication of automobile tires. As tires are worn on the road and in parking lots, they leave micro deposits and small chunks of tire material behind. The increase in traffic through the site may increase the amount of 6PPD discharged or filtered into the restored riparian corridor on the south and west of the project site. Long term low level or repeated sublethal exposure effects are not known, however preliminary results from toxicity threshold testing show sublethal exposures still result in neurological damage in surviving juveniles and adult salmonids.

Impacts to ESA Listed Species

- **Steelhead trout *(Onochrhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha)***: Although no portion of Wapato Creek or Simons Creek is designated as a critical habitat for Chinook salmon or Steelhead trout, both creeks may be considered to be migration corridors due to the documented presences of Steelhead trout. As such, both streams may provide critical habitat for Steelhead trout. Surface stormwater discharge leaving the site may contain levels of 6PPD that can be detrimental to salmonid under worst-case scenario and is likely to adversely impact Puget Sound Steelhead trout critical habitat.

- **Southern Resident Killer Whale *(Orcinus orca)***: Southern Resident Killer Whale may be found in the Puget Sound, approximately 3.5 miles northwest of the project site, from November to January. Chinook salmon is a primary food source for the Southern Resident Killer Whale. While there are direct, short-term impacts to Chinook salmon with the proposed project, the long-term impacts will improve habitat functions for salmonid species within Wapato Creek and Simons Creek. Due to the lack of documented presence of Chinook salmon in Wapato Creek and Simons Creek and the small size of the stream relative to the Puget Sound watershed, the proposed project is not expected to have significant impact to Southern Resident Killer Whale critical habitat.

7.2.3 Action Alternative 1

Action Alternative 1 includes the fill or partial fill of approximately 77,200 SF (1.77 acres) of seven (7) onsite wetlands and the realignment of Wapato Creek along the southern portion of the project site (approximately 3,000 linear feet). The relocation of Wapato Creek would result in the removal of nine (9) existing culverts and the installation of two (2) bottomless stream crossings.

7.2.3.1 Impacts to Wildlife

In addition to the impacts applicable to both Action Alternatives the following temporary and long-term impacts to wildlife may occur with the development of Action Alternative 1.

Temporary Impacts

- **Fish disturbance and mortality**: Due to fish presence within the stream, disturbance and mortality of individuals are likely to occur with dewatering activities associated with relocation and fill of Wapato Creek and Stream X.

- **Temporary turbidity**: Increases in turbidity are likely to occur during construction activities and the rewatering of the new stream channel.

Long-Term Impacts

Construction Impacts

- **Stream and wetland fill**: Fill of existing stream and wetland habitat will result in the immediate and permanent loss of aquatic habitat at these locations.

Impacts to ESA-Listed Species

Steelhead trout (Onochrhynchus mykiss) and Chinook salmon (*Oncorhynchus tshawytscha*):
The WDFW identifies the documented presence of Steelhead trout in Wapato Creek and Simons Creek that is also gradient accessible to Chinook salmon. Direct and short-term effects resulting from the dewatering and rewatering of Wapato Creek and Stream X channels are likely to impact juvenile Chinook salmon and Steelhead trout that are present in the stream. Further, the proposed fill of the existing Wapato Creek and Stream X will lead to a permanent loss of channel habitat. Mitigation measures (described in Section 7.3) will be implemented to reduce direct and temporary impacts to fish species including implementation of fish capture and relocation procedures and turbidity controls.

The proposed channel realignment and wetland and buffer mitigation actions have the potential to establish higher functioning Chinook salmon and Steelhead trout habitats in both Wapato Creek and Simons Creek. However, the aquatic habitat loss associated with relocating and filling the existing Wapato Creek channel will likely contribute to temporary but significant impacts to the stream ecosystem and species that utilize the existing channel. Further, the increased traffic combined with the proposed stormwater treatment and the need to discharge surface water offsite may lead to increased presence of toxicants, namely 6PPD, in downgradient waters. This is known to cause harm to salmonids. As such, the proposed project is likely to adversely impact Puget Sound Steelhead trout and Puget Sound Chinook salmon.

Impacts to Other Species

The removal of wetlands under Action Alternative 1 will result in loss of habitat for waterfowl concentrations.

The relocation of Wapato Creek and its associated wetlands and buffers would further separate habitat areas and increase fragmentation on the site. Increased fragmentation of native habitat, together with the expected increased human activity, would affect animal movement patterns by causing the animals to avoid areas or time periods of high activity. However, many species would likely use restored and enhanced habitat areas on the site.

7.2.3.2 Impacts to Vegetation

A total of 378 trees (including two (2) hazardous trees) are proposed for removal, as they are within the proposed development area. The FEMA Floodplain Habitat Assessment prepared by Soundview Consultants concluded that existing riparian vegetation along the stream channels is relatively disturbed and therefore vegetation removal in these areas is not anticipated to adversely affect riparian vegetation.

7.2.4 Action Alternative 2

Action Alternative 2 proposes to maintain the existing alignment of Wapato Creek but remove and replace several undersized culverts along Wapato and Simons creeks. The proposal intends to avoid direct impacts to onsite critical areas by utilizing all developable upland areas onsite primarily between Wapato Creek and Simons Creek. Complete avoidance is not possible while facilitating site development due to the encumbrance of several onsite wetlands and straightened stream and associated buffers. Given the extensive critical areas onsite, it is not feasible to move the entire development outside of the FEMA protected area.

In addition to the impacts applicable to both Action Alternatives the following temporary and long-term impacts to plants and animals may occur with development of Action Alternative 2.

7.2.4.1 Impacts to Wildlife

Temporary Impacts

- **Temporary turbidity**: Increases in turbidity are likely to occur during construction activities and buffer restorations.

Long-Term Impacts

Impacts to EIS Species

Steelhead trout (*Onochrhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*):
Fish species habitat is currently limited on the project site due to degraded conditions of the onsite creeks (Wapato Creek and Simons Creek). Proposed mitigation actions along Wapato Creek and Simons Creek will enhance native vegetation and provide streamside shading to cool water temperatures and improve overall habitat functions. Additionally, removal and replacement of undersized culverts will improve accessibility to upgradient habitat. However, the increased traffic combined with the proposed stormwater treatment and the need to discharge surface water offsite may lead to the increased presence of toxicants, namely 6PPD, in downgradient waters. This is known to cause harm to salmonids. As such, the proposed project is likely to adversely affect Steelhead trout and Chinook salmon.

Impacts to Other Species

A portion of an onsite wetland is mapped as having waterfowl concentrations. The proposed development under Action Alternative 2 will impact wetland buffers. This combined with increased traffic and human activity resulting from the development may cause waterfowl and other species to avoid the area. However, many species would likely use restored and enhanced habitat areas on the site.

7.2.4.2 Impacts to Vegetation

A total of 207 trees are proposed for removal, primarily due to their location within the proposed development, with the exception of two (2) trees which are proposed for removal due to being hazardous. The FEMA Floodplain Habitat Assessment prepared by Soundview Consultants concluded that existing riparian vegetation along the stream channels is relatively disturbed and therefore vegetation removal in these areas is not anticipated to adversely affect riparian vegetation.

7.3 Mitigation Measures

The mitigation measures outlined below that are proposed for this project are the best available science for this specific project site and were informed by the Washington State Department of Ecology recommendations on mitigation measures.

7.3.1 Common to Both Action Alternatives

Impacts related to the increased presence of toxicants, namely 6PPD, in downgradient waters, which is known to cause harm to salmonids, will be further analyzed and addressed through required federal permitting.

Where there are unavoidable long-term impacts to critical areas, the Applicant will provide a compensatory mitigation plan pursuant to the requirements of Tribes, federal agencies, state agencies, and all other applicable local requirements. The compensatory mitigation plan will be required at the project permitting phase. The proposed mitigation outlined in the Plan will be coordinated with the above listed agencies.

Mitigation measures for long-term impacts to critical areas shall be determined in accordance with the US Army Corps of Engineers (USACE) mitigation hierarchy (highest priority being the use of mitigation banks, then fee-in-lieu programs, and lastly mitigation using a watershed approach).

The proposed development under both of the Action Alternatives will provide enhanced water quality treatment for all pavement in accordance with the City's adopted stormwater manual, EMC Chapter 13.05, as well as the 2024 Ecology Stormwater Management Manual for Western Washington standards for the purpose of 6PPD and the utilization of Best Available Science. Enhanced water quality will be provided in the stormwater treatment wetlands and with engineered treatment devices with Ecology General Use Level Designation (GULD) approval for enhanced treatment. Metals treatment requires basic treatment plus removal of greater than 30 percent dissolved copper, greater than 60 percent dissolved zinc removal, and 80 percent removal of total suspended solids for an influent concentration. In addition, flow control for stormwater discharges will match developed discharge rates from 50 percent of the 2-year peak flow up to the full 50-year peak flow using the pre-developed forested condition. Detention ponds with stormwater treatment wetlands or vault type water quality units and underground detention facilities will be proposed to meet the natural drainage pattern.

7.3.2 Action Alternative 1

Stream Mitigation

A Water Quality Plan and Fish Protection Plan for the Wapato Creek relocation associated with Action Alternative 1 will be prepared. The stream relocation will be divided into at least two (2) sections in order to minimize fish loss and turbidity impacts during fish recovery and dewatering efforts. Stream relocation activities will occur during low stream flow conditions. Prior to dewatering, block nets will be installed at the upstream and downstream ends of the channel and fish capture and relocation efforts will be completed according to the Fish Protection Plan. Biodegradable coir logs will be installed in the new stream to help capture sediments flowing downstream. The relocation of Wapato Creek and Stream X will result in stream creation of approximately 2,900 linear feet.

Action Alternative 1 proposes stream restoration that will provide improvements in stream ecological functions as compared to the existing degraded stream channel. The restored stream channel will consist of a meandering channel connecting wetland habitats within a riparian corridor containing native vegetation. Once established, the restored channels and proposed 200-foot riparian corridor will provide long-term benefits for salmonids and other fish including cool and clean water, stream shading, stormwater filtration, wood recruitment, and decreased streambank erosion. Additionally, the removal of nine (9) undersized culverts and installation of two (2) bottomless stream crossings on the project site may provide more accessible fish passage to the upstream reach of both Wapato Creek and Simons Creek. The proposal includes 2,876 linear feet of stream channel creation, including 2,670 linear feet within the Wapato Creek relocation, 165 linear feet within the Stream X relocation, and 41 linear feet of a daylight channel for the culverted portion of Simons Creek.

Wetland Creation Mitigation

The proposed project would include the fill or partial fill of seven (7) onsite wetlands. Proposed compensatory mitigation for direct impacts to these wetlands includes the creation of approximately 252,600 SF (5.8 acres) of wetlands. The wetland creation areas will be excavated to provide necessary depressions to hold sufficient water to create wetland conditions.

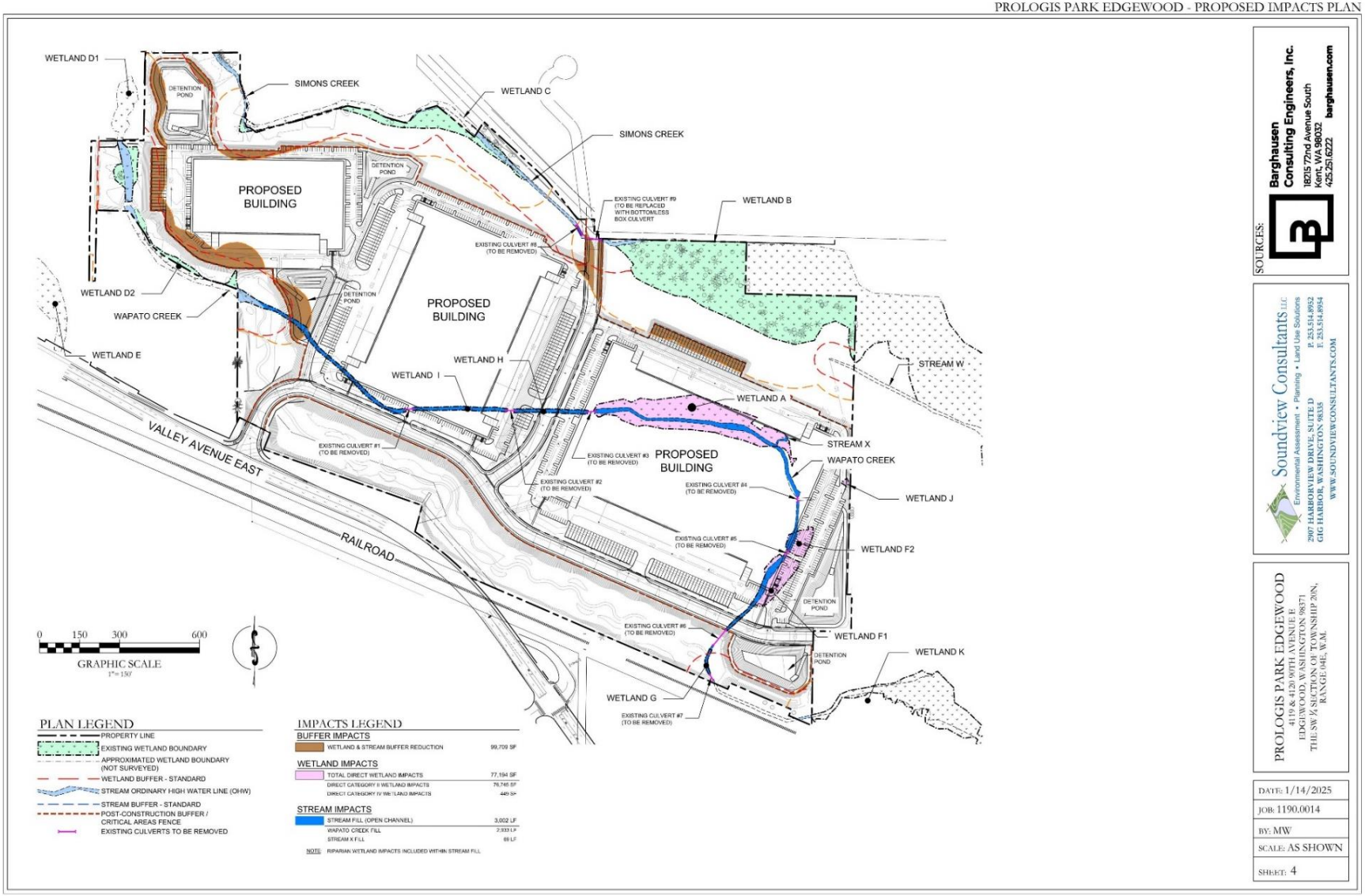
Proposed wetland mitigation actions include treatment and removal of invasive vegetation, planting with native trees and shrubs, and an establishment of a herbaceous understory to allow the establishment of wetland areas, retention of water and sediments, and improvement in water quality. Additionally, non-compensatory wetland creation, wetland enhancement, buffer restoration, and buffer creation are proposed. The Applicant is also proposing wetland impact minimization measures. For more information and a complete list of proposed mitigation actions, see Chapter 5 Surface Water.

Overall, the proposed wetland mitigation actions are expected to greatly improve ecological functions of the existing degraded conditions thus improving salmonid habitat conditions.

Vegetation Mitigation

Per EMC 18.90.180(C)(4), significant trees shall be replaced onsite at a rate of one and one half to one (1.5:1). No replacement ratio is specified for perimeter trees, therefore the same ratio required for onsite trees will be applied. A total of 838 trees are proposed to be replaced onsite, within the interior lot and buffer areas.

Figure 7.5: Proposed Mitigation Plan Alternative 1



7.3.3 Action Alternative 2

Construction Mitigation

Fish species that utilize the existing on-site streams may be subject to temporary turbidity during construction and buffer restoration activities. The Washington Administrative Code (WAC) makes allowances for temporary turbidity due to construction activities (WAC 173-201A-200(1)(e)). Construction activities will occur in the summer, during low-flow conditions that are expected to remain at low flow for the duration of the project construction.

During construction activities associated with removal and replacement of undersized culverts and installation of bottomless crossings, work will occur in phases. Dewatering measures will occur in small sections of the stream at a time, reducing disturbed sediments exposed to flow into smaller areas. Prior to reintroducing water to the new stream reach, temporary sediment dams will be installed to help capture sediments flowing downstream. Water will be reintroduced gradually to allow time for sediments to settle.

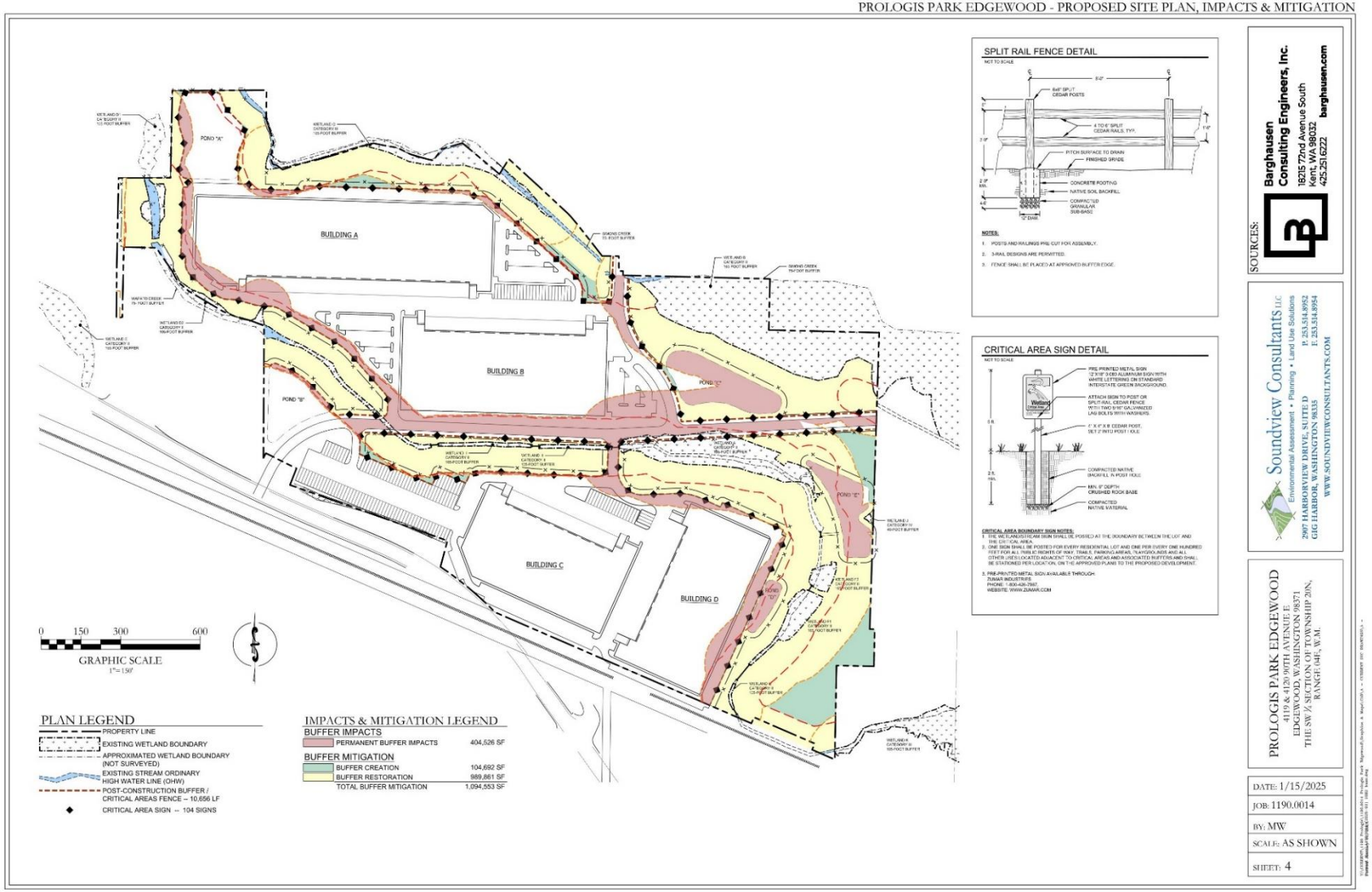
Stream and Wetland Buffer Mitigation

Action Alternative 2 would result in permanent stream and wetland buffer impacts. Proposed mitigation includes approximately 105,500 SF (2.4 acres) of buffer creation and approximately 990,000 SF (22.7 acres) of buffer restoration. Existing buffers are degraded and provide little to no canopy cover or food sources for salmonids. The proposed buffer mitigation will provide a net gain in ecological functions. For a complete list of proposed recommendation measures for buffer creation and restoration and stream crossing actions, see Chapter 5 Surface Water.

Vegetation Mitigation

Per EMC 18.90.180(C)(4), onsite significant trees removed shall be replaced at a rate of one and one half to one (1.5:1). No replacement ratio is specified for perimeter trees, therefore the same ratio required for onsite trees will be applied. A total of 444 trees are proposed to be replaced onsite, within the interior lot and buffer areas.

Figure 7.6: Proposed Mitigation Plan Alternative 2



7.4 Significant Impact Determination

Impacts to Wildlife

Both Action Alternatives are likely to adversely impact two (2) ESA-listed species – Puget Sound Steelhead trout and Puget Sound Chinook salmon.

Under Action Alternative 1, the proposal will provide a net increase in stream habitat functions associated with both Wapato Creek and Simons Creek and includes mitigation measures to reduce and minimize impacts to wildlife. The aquatic habitat loss associated with relocating and filling the existing Wapato Creek channel will likely contribute to temporary and significant impacts to the stream ecosystem.

Under both Action Alternatives proposed mitigation will create and enhance native vegetation through buffer creation and restoration to onsite streams and wetlands, improving overall habitat function. Additionally, replacement of undersized culverts and replacement with larger culverts will improve accessibility for salmonid species to upgradient habitat.

Despite these beneficial impacts, the increased vehicle traffic combined with the inability to infiltrate onsite and the need to discharge surface water may lead to the increased presence of toxicants, namely 6PPD, in downgradient waters, which is known to cause harm to salmonids.

There are studies underway in the region looking at improved treatment methods that might effectively remove 6PPD from surface water, thereby protecting at-risk aquatic life. With such improved technology, it may be possible to implement enhanced surface water treatment facilities that incorporate the methods currently being studied which would provide mitigation for these impacts. However, there is inadequate information at this time to provide a clear answer as to whether such methods would successfully mitigate these impacts, in whole or in part, or if they might have some unforeseen impact(s) on plants or other wildlife under the worst-case scenario. The best available science from the Washington State Department of Ecology acknowledges the potential impacts of 6PPD, and metrics to evaluate these impacts are ongoing.

As such, this environmental review determined that under the worst-case scenario there could be **significant adverse impacts** to Puget Sound Steelhead trout and Puget Sound Chinook salmon under both Action Alternatives that might not be minimized, reduced, or eliminated with implementation of the earlier mitigation measures described above.

Under both Action Alternatives, federal ESA permitting is expected. Conditions required as part of that permitting process may also result in mitigation, in whole or in part, of these impacts.

Impacts to Vegetation

Environmental review has determined that adverse impacts to vegetation that may arise during implementation of either of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures described above.

8. Noise

This chapter describes how implementation of either of the Action Alternatives could impact noise in the vicinity of the project site compared to the No Action Alternative. This chapter discusses the findings of the noise studies prepared by SSA Acoustics: *Prologis Edgewood Site Noise Study (4 Building Site),* dated January 10, 2025 (Appendix V) and *Prologis Edgewood Site Noise Study (3 Building Site),* dated January 10, 2025 (Appendix W). These studies included measurements of existing noise levels and projection of future noise levels at locations around the perimeter of the site.

8.1 Affected Environment

The affected environment includes the area within the project site boundary and the receiving properties (***Figure 8.1***) that could be impacted by noise due to the implementation of either Action Alternative. This includes adjacent residential zoned properties to the west and north and industrial zoned properties to the east and south.

8.1.1 Noise Characteristics and Regulations

A decibel (dB) is the common unit for expressing the ratio between two (2) amounts of electric or acoustic power or for measuring the relative loudness of sounds. The dBA (A-weighted sound levels) are decibel scale readings that have been adjusted in an attempt to take into account the varying sensitivity of the human ear to different frequencies of sound. Typical human hearing ranges from approximately three (3) dBA to 140 dBA. ***Table 8.1*** provides typical noise levels associated with various activities.

Table 8.1: Typical Noise Levels for Various Activities

dBA	Activity/Source
3	Threshold for hearing
20	Quiet rural nighttime
30	Library
40	Room in a residence
50	Large Business Office
60	Normal speech (3-feet distance)
70	Shouting (3-feet distance)
80	Food blender (3-feet distance)
90	Gas lawn mower (3-feet distance)
100	Jet flyover (984-feet distance)

Source: US Department of Transportation Federal Highway Administration (FHWA), 2021

Noise levels on the project site are subject to the regulations set forth in EMC Chapter 8.20, Noise Pollution. EMC 8.20.030 Identification of Environments, specifies three (3) EDNA (Environmental Designation for Noise Abatement) Classes, listed below:

- Class A EDNA – Lands where human beings reside and sleep.
- Class B EDNA – Lands involving uses requiring protection against noise interference with speech.
- Class C EDNA – Lands involving economic activities of such a nature that higher noise levels than experienced in other areas is normally to be anticipated.

The Class type is categorized by use type of the property rather than the zoning of the property. Properties adjacent to the west and north of the project site include residential uses, which are defined as Class A. The project site and adjacent industrial uses are defined as Class C. There are no Class B uses

adjacent to the project site. The allowable maximum sound levels depend on both the noise source and the receiving property. ***Table 8.2*** shows the maximum noise levels permissible under the EMC at each Class type that is applicable to the proposed project.

Table 8.2: Permissible Noise Levels Based on Class Type of Receiving Property (based on Class C Noise Source)

Receiving Properties	EDNA Classification	Noise Level (dbA) (Daytime)	Noise Level (dbA) (Nighttime)
West (residential)	Class A	60	50
North (residential)	Class A	60	50
East (industrial)	Class C	70	70
South (industrial)	Class C	70	70

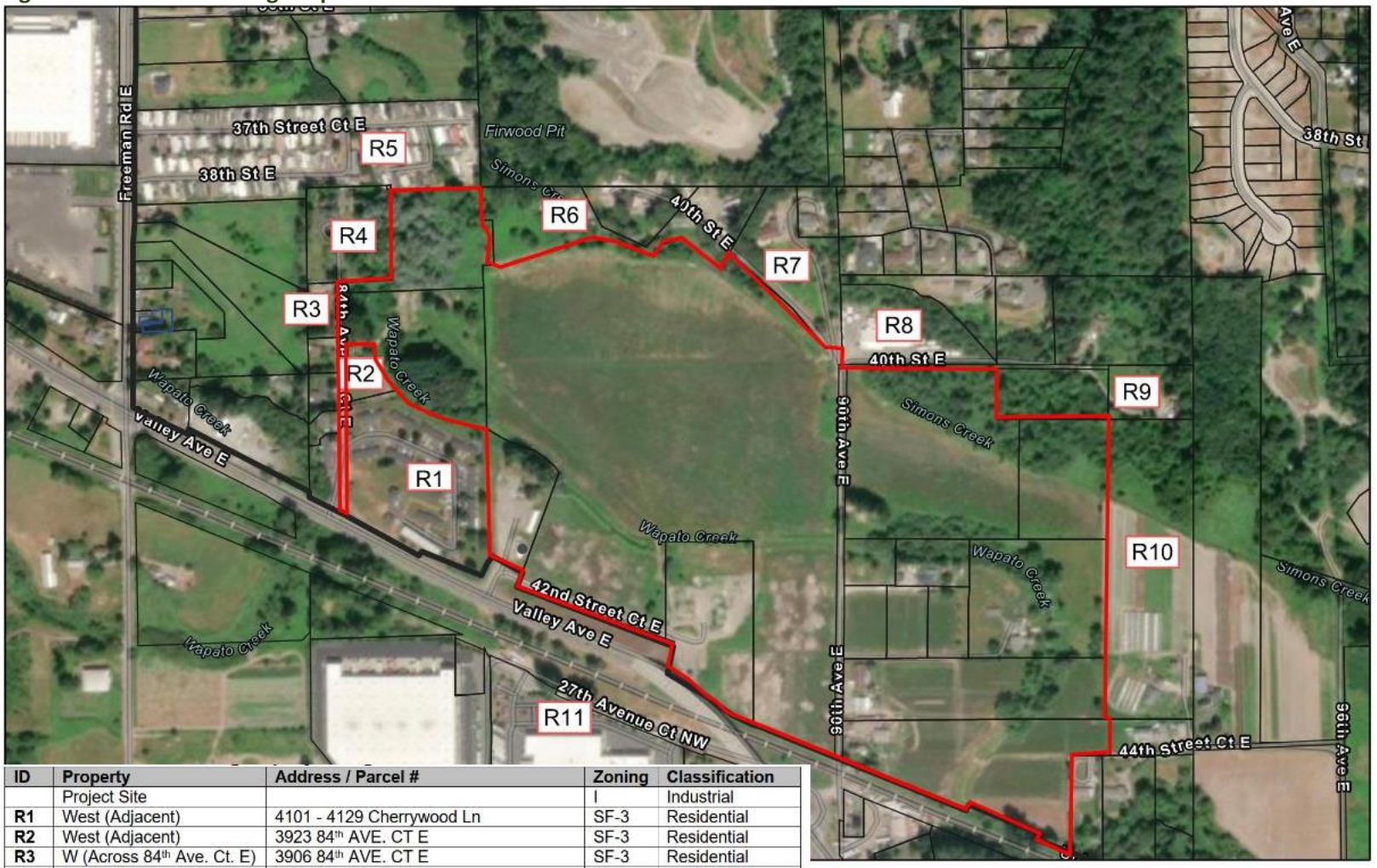
EMC 8.20.040(C) states that the noise levels shall be reduced by 10 dBA for Class A receiving properties between the hours of 10:00 p.m. and 7:00 a.m. and at no time of day shall any of the noise levels exceed the limits by:

- 5 dBA for 15 minutes in a one-hour period
- 10 dBA for 5 minutes in a one-hour period
- 15 dBA for 1.5-minutes in a one-hour period

8.2 Methodology

The noise studies prepared by SSA Acoustics document the extent of impact of noise from truck traffic and loading operations associated with the site to the surrounding properties. The 11 surrounding properties (receiving properties) are shown in ***Figure 8.1***.

Figure 8.1: Noise Receiving Properties



ID	Property	Address / Parcel #	Zoning	Classification
	Project Site		I	Industrial
R1	West (Adjacent)	4101 - 4129 Cherrywood Ln	SF-3	Residential
R2	West (Adjacent)	3923 84th AVE. CT E	SF-3	Residential
R3	W (Across 84th Ave. Ct. E)	3906 84th AVE. CT E	SF-3	Residential
R4	NW (Adjacent)	3802 84th AVE. CT E	SF-3	Residential
R5	NW (Adjacent)	8412 38th ST E	SF-3	Residential
R6	North (Adjacent)	0420166001	SF-3	Residential
R7	North (Across 40th St. E)	3827 90th AVE E	SF-3	Residential
R8	North (Across 40th St. E)	9015 38TH CT E	SF-3	Residential
R9	NE (Adjacent)	9314 49th ST E & 0420163024	SF-3	Residential
R10	East (Adjacent)	9321 44TH Street CT E	I	Industrial
R11	S (Across Valley Ave E)	2606 16th St. NW, 1414 Valley AVE NW	I	Industrial

Of the 11 receiving properties, nine (9) (R1-R9) are residential and are therefore classified as Class A receiving properties. The remaining two (2) receiving properties (R10 and R11) are classified as Class C (industrial use) receiving properties. The *Noise Study* only included the anticipated noise levels on Class A receiving properties, as vehicle noise level is exempt from threshold requirements when received at Class C properties.

Noise generating sources evaluated in the *Noise Study* include the following.

- Truck transit (subject to hourly code limit): Consists of trucks pulling into the site, traveling to the loading dock, and backing into the dock door. Truck transit that occurs close to receiving properties will last up to 30 seconds on average, and typically only one (1) trip occurs at a time for each building.
- Truck idling: Occurring after a truck enters a loading bay and prior to leaving a bay, or when a truck parks/drops a trailer at a stall. Truck idling typically occurs between one (1) and five (5) minutes on average.
- Truck engine start.
- Air Brakes: Air brakes usually last no more than a few seconds on average.

Loading activities associated with each building will occur within the buildings and therefore are not evaluated.

Noise levels from the site were predicted to the receiving properties (R1 – R9) and compared to the exterior sound level limits established by Municipal Code requirements in addition to ambient noise levels measured at the site. The study included both the Land Use Code (LUC) 130 Industrial Park and LUC 155 Fulfillment Center scenarios.

8.3 Existing Noise Levels

Existing ambient noise levels on site in present conditions were measured between July 21-22, 2022, for a 24-hour period at the nine (9) Class A (residential) receiving properties. Svantek 971 and Svantek 307 noise monitors were utilized for this evaluation.

The measured noise levels for both daytime and nighttime are shown in ***Table 8.3*** and ***Table 8.4***. The majority of noise near the site is generated by local traffic along Valley Avenue East (south of the property), 84th Court East (west of the property), and 90th Avenue East (east of the property).

Table 8.3: Representative Ambient Noise Levels. Hourly Leq (dBA)

Receiver	R1	R2	R3	R4	R5	R6	R7	R8	R9
Time Period									
Daytime (7:00 am - 10:00 pm)	47-54	45-56	42-58	42-58	40-56	42-58	43-53	43-53	43-53
Nighttime (10:00 pm - 7:00 am)	43-52	41-52	39-51	39-51	37-49	39-51	40-54	40-54	40-54

Table 8.4: Representative Ambient Noise Levels. Hourly L2.5 (1.5-minutes per hour) (dBA)

Receiver	R1	R2	R3	R4	R5	R6	R7	R8	R9
Time Period									
Daytime (7:00 am - 10:00 pm)	52-59	51-66	49-68	49-68	47-66	49-68	50-61	50-61	50-61
Nighttime (10:00 pm - 7:00 am)	50-58	48-59	45-60	45-60	43-58	45-60	46-60	46-60	46-60

8.4 Environmental Impacts

8.4.1 No Action Alternative

Under the No-Action Alternative, no development of the site would occur, and the existing vacant land on the project site is assumed to remain undeveloped. There are no noises generated from the current vacant project site beyond the ambient noise levels described in Section 8.3 above.

8.4.2 Impacts Common to Both Action Alternatives

Construction Impacts

Construction activities will generate temporary noise associated with activities such as truck traffic entering and exiting the site, bulldozers, and other vehicles and machinery use typically associated with construction. These impacts are temporary and will only occur for the duration of project construction.

8.4.3 Action Alternative 1

Operation Impacts

The proposed development will have both loading docks and trailer parking stalls. Trucks will enter and exit the property via Valley Avenue East, south of the project site. Operational noise attributed to the proposed Action Alternative 1 will occur from truck and loading dock activity which typically includes truck traffic entering and exiting the site, startup, idling, air brakes, and loading activities. The highest level of noise associated with operations is expected to be generated by truck traffic entering and exiting the site. Action Alternative 1 proposes three (3) buildings, with the following number of loading docks and trailer parking stalls:

Table 8.5: Proposed Number of Loading Docks and Trailer Parking Stalls

Building A (northwest corner of the site)	
Loading Docks	Trailer Parking Stalls
24 docks on the south side of the building	19 stalls west of the building
Building B (central portion of the site)	
Loading Docks	Trailer Parking Stalls
72 docks (36 docks each on the west and east sides of the building)	69 stalls on the west and east side of the building
Building C (southeast corner of the site)	
Loading Docks	Trailer Parking Stalls
84 docks (42 docks each on the north and south side of the building)	80 stalls on the north and south side of the building.
CUMULATIVE TOTAL: 180 Docks	**CUMULATIVE TOTAL: 168 Stalls**

Figure 8.2: Action Alternative 1 Site Plan and Operations Area

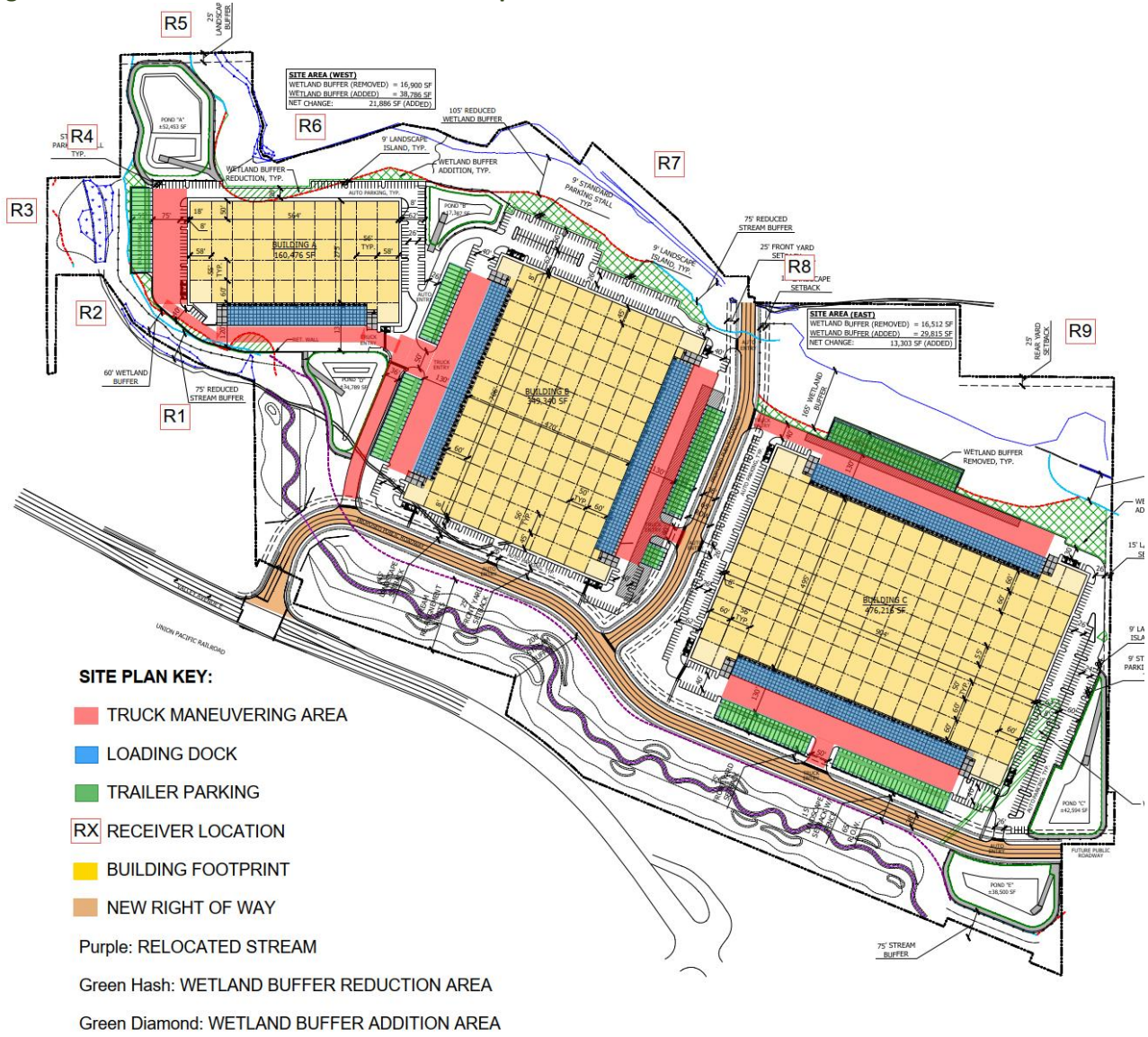


Table 8.6 depicts the distance from the noise generating operations of each building to the nearest Class A receiving properties.

Table 8.6: Distance from Noise Source to Receiving Properties

Receiving Property	Elevation /Grade	Distance from maneuvering area	Distance from nearest dock	Distance from nearest trailer stall
Building A				
R1 (west adjacent)	35 feet	90 feet	190 feet	-
R2 (west adjacent)	35 feet	130 feet	-	130 feet
R4 (northwest adjacent)	35 feet	110 feet	-	95 feet
Building B				
R1 (west adjacent)	35 feet	300 feet	430 feet	370 feet
R2 (west adjacent)	36 feet	350 feet	370 feet	350 feet
R4 (west adjacent)	37 feet	250 feet	250 feet	315 feet
Building C				
R8 (north across 40th Street East)	37 feet	350 feet	370 feet	300 feet
R9 (Northeast adjacent)	37 feet	360 feet	380 feet	310 feet

Table 8.7 through Table 8.16 show the predicted noise levels from the noise generating operations of each building for Action Alternative 1 on the nearest Class A receiving properties. The *Noise Study* includes the predicted noise levels for both use scenarios: an Industrial Park and a Fulfillment Center.

Industrial Park (LUC 130)

Below is a summary of predicted noise levels associated with an Industrial Park use scenario.

Table 8.7: Truck Transit (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Distance	Distance Attenuation Factor[1]	Lp, r (dBA)	Event Duration(s)	SEL[2]	Events/ hour	Hourly Leq at Receiver[3]
Building A									
R1	75	25 feet	90 feet	-11	**64**	30	79	6	**50**
R2	75	25 feet	130 feet	-14	**61**	30	75	6	**48**
R4	75	25 feet	110 feet	-13	**62**	30	77	6	**49**
Building B									
R1	75	25 feet	250 feet	-20	**55**	30	70	19	**47**
R6	75	25 feet	260 feet	-20	**55**	30	69	19	**47**
R8	75	25 feet	260 feet	-20	**55**	30	69	19	**47**
Building C									
R8	75	25 feet	360 feet	-23	**52**	30	67	22	**45**
R9	75	25 feet	350 feet	-23	**52**	30	67	22	**45**

[1] Distance Attenuation Factor = -10*LOG(Q)+20*LOG(R2/R1)

[2] SEL = (Lp, r)+10*LOG(Event Duration (s))

[3] Hourly Leq at Receiver = (SEL)+10*LOG(Events per Hour)-10*LOG(3600)

As seen in ***Table 8.7*** above, the predicted truck transit noise levels at all receiving properties do not exceed either the 60 dBA daytime hourly code limit nor the 50 dBA nighttime hourly code limit (based on the hourly Leq (equivalent sound level) at the receiver).

Table 8.8: Truck Idling (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Source	Receiving Property	Lp, s (dBA)	Ref. Distance	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	72	25 feet	190 feet	-18	**54**
Trailer Stalls	R2	72	25 feet	130 feet	-14	**58**
Trailer Stalls	R4	72	25 feet	95 feet	-12	**60**
Building B						
Loading Docks (West)	R1	72	25 feet	430 feet	-25	**47**
Trailer Stalls (Southwest)	R1	72	25 feet	370 feet	-23	**49**
Loading Docks (West)	R6	72	25 feet	370 feet	-23	**49**
Trailer Stalls (Northwest)	R6	72	25 feet	350 feet	-23	**49**
Loading Docks (East)	R8	72	25 feet	250 feet	-20	**52**
Trailer Stalls (Northeast)	R8	72	25 feet	315 feet	-22	**50**
Building C						
Loading Docks (North)	R8	72	25 feet	370 feet	-23	**49**
Trailer Stalls	R8	72	25 feet	300 feet	-22	**50**
Loading Docks (North)	R9	72	25 feet	380 feet	-23	**49**
Trailer Stalls	R9	72	25 feet	310 feet	-22	**50**

As seen in ***Table 8.8***, the predicted truck idling noise levels at all receiving properties do not exceed the 60 dBA daytime hourly code limit. The truck idling noise levels exceed the 50 dBA nighttime hourly code limit for Building A at all receiving properties and for Building B at one (1) receiving property.

Table 8.9: Predicted Noise Levels of Truck Engine Starts at Class A Receiving Properties (1.5-minutes per hour code limit)

Source	Receiving Property	Lp, s (dBA)	Rcv. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	74	25 feet	190 feet	-18	**56**
Trailer Stalls	R2	74	25 feet	130 feet	-14	**60**
Trailer Stalls	R4	74	25 feet	95 feet	-12	**62**
Building B						
Loading Docks (West)	R1	74	25 feet	430 feet	-25	**49**
Loading Docks (West)	R6	74	25 feet	350 feet	-23	**51**
Trailer Stalls (Northwest)	R6	74	25 feet	315 feet	-22	**52**
Loading Docks (East)	R8	74	25 feet	250 feet	-20	**54**
Trailer Stalls (Northeast)	R8	74	25 feet	315 feet	-22	**52**
Building C						
Loading Docks	R8	74	25 feet	370 feet	-23	**51**
Trailer Stalls	R8	74	25 feet	300 feet	-22	**52**
Loading Docks	R9	74	25 feet	380 feet	-23	**51**
Trailer Stalls	R9	74	25 feet	310 feet	-22	**52**

As seen in ***Table 8.9***, the predicted noise levels associated with truck engine starts for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on receiving properties.

Table 8.10: Predicted Noise Levels of Truck Air Brakes at Class A Receiving Properties (1.5-minutes per hour code limit)

Source	Receiving Property	Lp, s (dBA)	Rcv. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	75	25 feet	190 feet	-18	**57**
Trailer Stall	R2	75	25 feet	130 feet	-14	**61**
Trailer Stall	R4	75	25 feet	95 feet	-12	**63**
Building B						
Loading Docks (West)	R1	75	25 feet	430 feet	-25	**50**
Loading Docks (West)	R6	75	25 feet	350 feet	-23	**52**
Trailer Stalls (Northwest)	R6	75	25 feet	315 feet	-22	**53**

Source	Receiving Property	Lp, s (dBA)	Rcv. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Loading Docks (East)	R8	75	25 feet	250 feet	-20	**55**
Trailer Stalls (Northeast)	R8	75	25 feet	315 feet	-22	**53**
Building C						
Loading Docks	R8	75	25 feet	370 feet	-23	**52**
Trailer Stalls	R8	75	25 feet	300 feet	-22	**53**
Loading Docks	R9	75	25 feet	380 feet	-23	**52**
Trailer Stalls	R9	75	25 feet	310 feet	-22	**53**

As seen in ***Table 8.10***, the predicted noise levels associated with air brakes for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on receiving properties.

Table 8.11 provides a summary of cumulative noise levels from all activities at each building to the nearest residential receiving properties.

Table 8.11: Cumulative Noise Levels at Class A Receiving Properties - LUC 130 (Hourly Code Limit)

Building	Source	R1	R2	R4	R6	R8	R9
A	Transit	50	48	49			
	Idle (Dock)	54					
	Idle (Stall)		58	60			
B	Transit	45			47	47	
	Idle (Dock)	47			49	52	
	Idle (Stall)	49			49	50	
C	Transit					45	45
	Idle (Dock)					49	49
	Idle (Stall)					50	50
Total		**57**	**58**	**60**	**53**	**57**	**53**

As seen in ***Table 8.11***, the predicted cumulative noise levels from the project site meet the 60 dBA daytime code limit but exceed the 50 dBA nighttime limit under the Industrial Park use scenario. The noise level is exceeded primarily due to truck idling, in addition to some contribution from noise associated with truck transit.

Fulfillment Center (LUC 155)

Below is a summary of predicted noise levels associated with a fulfillment center use scenario.

Table 8.12: Truck Transit (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Distance	Distance Attenuation Factor[1]	Lp, r (dBA)	Event Duration (s)	SEL [2]	Events/ hour	Hourly Leq at Receiver [3]
Building A									
R1	75	25 feet	90 feet	-11	**64**	30	79	3	**48**
R2	75	25 feet	130 feet	-14	**61**	30	75	3	**45**

Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Distance	Distance Attenuation Factor[1]	Lp, r (dBA)	Event Duration (s)	SEL [2]	Events/ hour	Hourly Leq at Receiver [3]
R4	75	25 feet	110 feet	-13	**62**	30	77	3	**46**
Building B									
R1	75	25 feet	250 feet	-20	**55**	30	70	10	**44**
R6	75	25 feet	260 feet	-20	**55**	30	69	10	**44**
R8	75	25 feet	260 feet	-20	**55**	30	69	10	**44**
Building C									
R8	75	25 feet	350 feet	-23	**52**	30	67	11	**42**
R9	75	25 feet	360 feet	-23	**52**	30	67	11	**42**

[1] Distance Attenuation Factor = -10*LOG(Q)+20*LOG(R2/R1)

[2] SEL = (Lp, r)+10*LOG(Event Duration (s))

[3] Hourly Leq at Receiver = (SEL)+10*LOG(Events per Hour)-10*LOG(3600)

As seen in ***Table 8.12***, the predicted truck transit noise levels at all receiving properties do not exceed the 60 dBA daytime hourly code limit and the 50 dBA nighttime hourly code limit (based on the hourly Leq (equivalent sound level) at the receiver).

Table 8.13: Truck Idling (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Source	Receiving Property	Lp, s (dBA)	Ref. Distance	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	72	25 feet	190 feet	-18	**54**
Trailer Stalls	R2	72	25 feet	130 feet	-14	**58**
Trailer Stalls	R4	72	25 feet	95 feet	-12	**60**
Building B						
Loading Docks (West)	R1	72	25 feet	430 feet	-25	**47**
Trailer Stalls (Southwest)	R1	72	25 feet	370 feet	-23	**49**
Loading Docks (West)	R6	72	25 feet	370 feet	-23	**49**
Trailer Stalls (Northwest)	R6	72	25 feet	350 feet	-23	**49**
Loading Docks (East)	R8	72	25 feet	250 feet	-20	**52**
Trailer Stalls (Northeast)	R8	72	25 feet	315 feet	-22	**50**
Building C						
Loading Docks (North)	R8	72	25 feet	370 feet	-23	**49**
Trailer Stalls	R8	72	25 feet	300 feet	-22	**50**
Loading Docks (North)	R9	72	25 feet	380 feet	-23	**49**

Source	Receiving Property	Lp, s (dBA)	Ref. Distance	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Trailer Stalls	R9	72	25 feet	310 feet	-22	**50**

As seen in ***Table 8.13***, the truck idling noise levels at all receiving properties do not exceed the 60 dBA daytime hourly code limit. The truck idling noise levels for Building A exceed the 50 dBA nighttime hourly code limit at all receiving properties. Building B exceeds the nighttime code limit at the R8 receiving property. Building C does not exceed the nighttime code limit at any receiving properties.

Table 8.14: Predicted Noise Levels of Truck Engine Starts on Class A Receiving Properties (1.5-minutes per hour Code Limit)

Source	Receiving Property	Lp, s (dBA)	Rcv. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	74	25 feet	190 feet	-18	**56**
Trailer Stalls	R2	74	25 feet	130 feet	-14	**60**
Trailer Stalls	R4	74	25 feet	95 feet	-12	**62**
Building B						
Loading Docks (West)	R1	74	25 feet	430 feet	-25	**49**
Loading Docks (West)	R6	74	25 feet	350 feet	-23	**51**
Trailer Stalls (Northwest)	R6	74	25 feet	315 feet	-22	**52**
Loading Docks (East)	R8	74	25 feet	250 feet	-20	**54**
Trailer Stalls (Northeast)	R8	74	25 feet	315 feet	-22	**52**
Building C						
Loading Docks	R8	74	25 feet	370 feet	-23	**51**
Trailer Stalls	R8	74	25 feet	300 feet	-22	**52**
Loading Docks	R9	74	25 feet	380 feet	-23	**51**
Trailer Stalls	R9	74	25 feet	310 feet	-22	**52**

As seen in ***Table 8.14***, the predicted noise levels associated with truck engine starts for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on receiving properties.

Table 8.15: Predicted Noise Levels of Truck Air Brakes on Class A Receiving Properties (1.5-minutes per hour Code Limit)

Source	Receiving Property	Lp, s (dBA)	Rcv. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	75	25 feet	190 feet	-18	**57**

Source	Receiving Property	Lp, s (dBA)	Rcv. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Trailer Stall	R2	75	25 feet	130 feet	-14	**61**
Trailer Stall	R4	75	25 feet	95 feet	-12	**63**
Building B						
Loading Docks (West)	R1	75	25 feet	430 feet	-25	**50**
Loading Docks (West)	R6	74	25 feet	350 feet	-23	**52**
Trailer Stalls (Northwest)	R6	75	25 feet	315 feet	-22	**53**
Loading Docks (East)	R8	75	25 feet	250 feet	-20	**55**
Trailer Stalls (Northeast)	R8	75	25 feet	315 feet	-22	**53**
Building C						
Loading Docks	R8	75	25 feet	370 feet	-23	**52**
Trailer Stalls	R8	75	25 feet	300 feet	-22	**53**
Loading Docks	R9	75	25 feet	380 feet	-23	**52**
Trailer Stalls	R9	75	25 feet	310 feet	-22	**53**

As seen in ***Table 8.15***, the noise levels associated with air brakes for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on receiving properties.

Table 8.16 provides a summary of cumulative noise levels from all activities at each building to the nearest residential receiving properties. As shown below, the predicted cumulative noise levels from the site meet the 60 dBA daytime code limit but exceed the 50 dBA nighttime limit in the Fulfillment Center scenario. The noise level is exceeded primarily due to truck idling, in addition to some contribution from noise associated with truck transit.

Table 8.16: Cumulative Noise Levels - LUC 155 (Hourly Code Limit)

Building	Source	R1	R2	R4	R6	R8	R9
A	Transit	48	45	46	-	-	-
	Idle (Dock)	54	-	-	-	-	-
	Idle (Stall)	-	58	60	-	-	-
B	Transit	44	-	-	44	44	-
	Idle (Dock)	47	-	-	49	52	-
	Idle (Stall)	49	-	-	49	50	-
C	Transit	-	-	-	-	42	42
	Idle (Dock)	-	-	-	-	49	49
	Idle (Stall)	-	-	-	-	50	50
Total		**57**	**58**	**60**	**53**	**57**	**53**

As seen in ***Table 8.11*** of cumulative noise levels for the Industrial Park use scenario and ***Table 8.16*** of cumulative noise levels for the Fulfillment Center scenario, both scenarios produced the same cumulative noise levels under Action Alternative 1.

8.4.4 Action Alternative 2

Operation Impacts

The proposed warehouse facility uses include loading docks and trailer parking stalls and require the need for trucks entering and exiting the property south of the project site, via Valley Avenue East. Noise associated with the project site will occur as a result of truck and loading dock activity, including, truck traffic entering and exiting the site, startup, idling, air brakes, and loading. The highest level of noise associated with the project is expected to be generated by truck traffic entering and exiting the site. Action Alternative 2 proposes four (4) buildings, with the following number of loading docks and trailer parking stalls:

Table 8.17: Proposed Number of Loading Docks and Trailer Parking Stalls

Building A (northwest corner of the site)	
Loading Docks	Trailer Parking Stalls
53 docks on the south side of the building	None associated with Building A
Building B (central portion of the site)	
Loading Docks	Trailer Parking Stalls
39 docks on the north side of the building	24 stalls on the north side of the building
Building C (southeast corner of the site, west of Building D)	
Loading Docks	Trailer Parking Stalls
28 docks each on the north and south side of the building	100 stalls on the west side of the building and 17 stall on the north side.
Building D (southeast corner of the site, east of Building C)	
Loading Docks	Trailer Parking Stalls
28 docks on the west side of the building	4 stalls
CUMULATIVE TOTAL: 148 Docks	**CUMULATIVE TOTAL: 145 Stalls**

Figure 8.3: Action Alternative 2 Site Plan and Operations Area

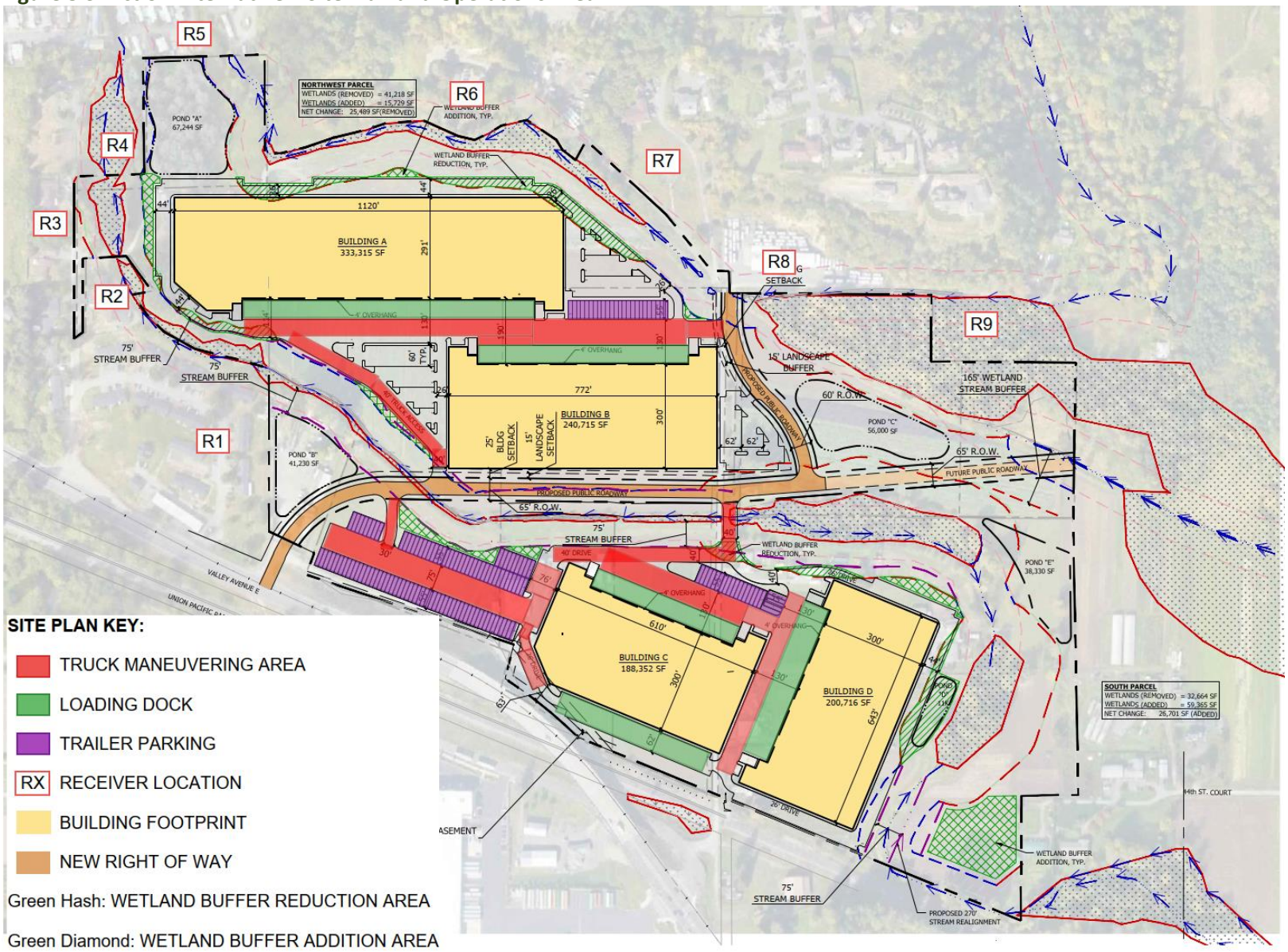


Table 8.18 depicts the distance from the noise generating operations of each building to the nearest Class A receiving properties.

Table 8.18: Distance (feet) from Noise Source to Receiving Property

Receiving Property	Elevation (Grade)	Distance from Maneuvering Area	Distance from nearest Dock	Distance from Nearest Trailer Stall
Building A				
R1	35 feet	140 feet	170 feet	-
Building B				
R7	37 feet	155 feet	260 feet	190 feet
R8	37 feet	140 feet	200 feet	200 feet
Building C				
R1	35 feet	190 feet	990 feet	190 feet
R8	37 feet	615 feet	920 feet	810 feet
Building D				
R8	37 feet	615 feet	900 feet	-

Table 8.19 through Table 8.28 below show the predicted noise level from the noise generating operations of each building for Action Alternative 2 on Class A receiving properties. The *Noise Study* includes the predicted noise levels for both use scenarios: an Industrial Park and a Fulfillment Center.

Industrial Park (LUC 130)

Below is a summary of predicted noise levels associated with an Industrial Park use scenario.

Table 8.19: Truck Transit (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Receiving Property	Lp,s (dBA)	Ref. Dist	Receiving Property Distance	Distance Attenuation Factor[1]	Lp, r (dBA)	Event Duration (seconds)	SEL[2]	Events per hour	Hourly Leq at Receiving property[3]
Building A									
R1	75	25 feet	140 feet	-15	**60**	30	75	17	**52**
Building B									
R7	75	25 feet	155 feet	-16	**59**	30	74	13	**49**
R8	75	25 feet	140 feet	-15	**60**	30	74	13	**50**
Building C									
R1	75	25 feet	190 feet	-18	**57**	30	72	9	**46**
R8	75	25 feet	615 feet	-28	**47**	30	62	9	**36**
Building D									
R8	75	25 feet	615 feet	-28	**47**	30	62	9	**36**

[1] Distance Attenuation Factor = -10*LOG(Q)+20*LOG(R2/R1)

[2] SEL = (Lp, r)+10*LOG(Event Duration (s))

[3] Hourly Leq at Receiver = (SEL)+10*LOG(Events per Hour)-10*LOG(3600)

The predicted truck transit noise levels at all receiving properties do not exceed the 60 dBA daytime hourly code limit and the 50 dBA nighttime hourly code limit (based on the hourly Leq (equivalent sound level) at the receiver).

Table 8.20: Truck Idling (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
	Building A					
Loading Docks	R1	72	25 feet	170 feet	-17	**55**
	Building B					
Loading Docks	R7	72	25 feet	260 feet	-20	**52**
Trailer Stalls	R7	72	25 feet	190 feet	-18	**54**
Loading Docks	R8	72	25 feet	200 feet	-18	**54**
Trailer Stalls	R8	72	25 feet	200 feet	-18	**54**
	Building C					
Loading Docks	R1	72	25 feet	990 feet	-32	**40**
Trailer Stalls (West)	R1	72	25 feet	190 feet	-18	**54**
Loading Docks	R8	72	25 feet	920 feet	-31	**41**
Trailer Stalls (North)	R8	72	25 feet	810 feet	-30	**42**
	Building D					
Loading Docks	R8	72	25 feet	900 feet	-31	**41**

As seen in ***Table 8.20***, the predicted truck idling noise levels at all receiving properties do not exceed the 60 dBA daytime hourly code limit. The truck idling noise levels for Building A and Building B exceed the 50 dBA nighttime hourly code limit at all receiving properties and exceed the limit on one (1) receiving property for Building C.

Table 8.21: Predicted Noise Levels of Truck Engine Starts at Class A Receiving Properties (1.5-minutes per hour code limit)

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
	Building A					
Loading Docks	R1	74	25 feet	170 feet	-17	**57**
	Building B					
Loading Docks	R7	74	25 feet	260 feet	-20	**54**
Trailer Stalls	R7	74	25 feet	190 feet	-18	**56**
Loading Docks	R8	74	25 feet	200 feet	-18	**56**
Trailer Stalls	R8	74	25 feet	200 feet	-18	**56**

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
	Building C					
Loading Docks	R1	74	25 feet	990 feet	-32	**42**
Trailer Stalls (West)	R1	74	25 feet	190 feet	-18	**56**
Loading Docks	R8	74	25 feet	920 feet	-31	**43**
Trailer Stalls (North)	R8	74	25 feet	810 feet	-30	**44**
	Building D					
Loading Docks	R8	74	25 feet	900 feet	-31	**43**

As seen in ***Table 8.21***, the predicted noise levels associated with truck engine starts for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on all receiving properties.

Table 8.22: Predicted Noise Levels of Truck Air Brakes at Class A Receiving Properties (1.5-minutes per hour code limit)

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	75	25 feet	170 feet	-17	**58**
Building B						
Loading Docks	R7	75	25 feet	260 feet	-20	**55**
Trailer Stalls	R7	75	25 feet	190 feet	-18	**57**
Loading Docks	R8	75	25 feet	200 feet	-18	**57**
Trailer Stalls	R8	75	25 feet	200 feet	-18	**57**
Building C						
Loading Docks	R1	75	25 feet	990 feet	-32	**43**
Trailer Stall (West)	R1	75	25 feet	190 feet	-18	**57**
Loading Docks	R8	75	25 feet	920 feet	-31	**44**
Trailer Stall (North)	R8	75	25 feet	810 feet	-30	**45**
Building D						
Loading Dock	R8	75	25 feet	900 feet	-31	**44**

As seen in ***Table 8.22***, the noise levels associated with air brakes for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on receiving properties.

Table 8.23 provides a summary of cumulative noise levels from all activities at each building to the nearest residential receiving properties. As shown below, the predicted cumulative noise levels from the site meet the 60 dBA daytime code limit but exceed the 50 dBA nighttime limit in the Industrial Park use scenario. The noise level is exceeded primarily due to truck idling, in addition to some contribution from noise associated with truck transit.

Table 8.23: Cumulative Noise Levels - LUC 130 (Hourly Code Limit)

Building	Source	R1	R7	R8
A	Transit	52		
	Idle (Dock)	55		
B	Transit		49	50
	Idle (Dock)		52	54
	Idle (Stall)		54	54
C	Transit	46		36
	Idle (Dock)	40		41
	Idle (Stall)	54		42
D	Transit			36
	Idle (Dock)			41
Total		**59**	**57**	**58**

Fulfillment Center (LUC 155)

Below is a summary of predicted noise levels associated with a Fulfillment Center use scenario.

Table 8.24: Truck Transit (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Receiving Property	Lp,s (dBA)	Ref. Dist	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)	Event Duration (seconds)	SEL	Events per hour	Hourly Leq at Receiving property
Building A									
R1	75	25 feet	140 feet	-15	**60**	30	75	9	**49**
Building B									
R7	75	25 feet	155 feet	-16	**59**	30	74	6	**46**
R8	75	25 feet	140 feet	-15	**60**	30	74	6	**47**
Building C									
R1	75	25 feet	190 feet	-18	**57**	30	72	5	**44**
R8	75	25 feet	615 feet	-28	**47**	30	62	5	**33**
Building D									
R8	75	25 feet	615 feet	-28	**47**	30	62	9	**33**

As seen in ***Table 8.24***, the predicted truck transit noise levels at all receiving properties do not exceed the 60 dBA daytime hourly code limit and the 50 dBA nighttime hourly code limit (based on the hourly Leq (equivalent sound level) at the receiver). Additionally, the predicted noise levels are within the range of daytime and nighttime ambient hourly noise levels at the receiver locations.

Table 8.25: Truck Idling (Hourly Code Limit) Predicted Noise Levels at Class A Receiving Properties

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	72	25 feet	170 feet	-17	**55**
Building B						
Loading Docks	R7	72	25 feet	260 feet	-20	**52**
Trailer Stalls	R7	72	25 feet	190 feet	-18	**54**
Loading Docks	R8	72	25 feet	200 feet	-18	**54**
Trailer Stalls	R8	72	25 feet	200 feet	-18	**54**
Building C						
Trailer Stalls (West)	R1	72	25 feet	190 feet	-18	**54**
Loading Docks	R8	72	25 feet	920 feet	-31	**41**
Trailer Stalls (North)	R8	72	25 feet	810 feet	-30	**42**
Building D						
Loading Docks	R8	72	25 feet	900 feet	-31	41

As seen in ***Table 8.25***, the predicted noise levels associated with truck idling does not exceed the 60 dBA daytime hourly code limit on receiving properties. Buildings A and Building B exceed the 50 dBA nighttime hourly code limit on all receiving properties and Building C exceeds the hourly code limit on one (1) receiving property.

Table 8.26: Predicted Noise Levels of Truck Engine Starts at Class A Receiving Properties (1.5-minutes per hour code limit)

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
	Building A					
Loading Docks	R1	74	25 feet	170 feet	-17	**57**
	Building B					
Loading Docks	R7	74	25 feet	260 feet	-20	**54**
Trailer Stalls	R7	74	25 feet	190 feet	-18	**56**
Loading Docks	R8	74	25 feet	200 feet	-18	**56**
Trailer Stalls	R8	74	25 feet	200 feet	-18	**56**
	Building C					
Trailer Stalls (West)	R1	74	25 feet	190 feet	-18	**56**
Loading Docks	R8	74	25 feet	920 feet	-31	**43**

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Trailer Stalls (North)	R8	74	25 feet	810 feet	-30	**44**
	Building D					
Loading Docks	R8	74	25 feet	900 feet	-31	**43**

Both daytime and nighttime predicted noise levels associated with engine starts for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on receiving properties.

Table 8.27: Predicted Noise Levels of Truck Air Brakes at Class A Receiving Properties (1.5-minutes per hour code limit)

Source	Receiving Property	Lp, s (dBA)	Ref. Dist.	Receiving Property Distance	Distance Attenuation Factor	Lp, r (dBA)
Building A						
Loading Docks	R1	75	25 feet	170 feet	-17	**58**
Building B						
Loading Docks	R7	75	25 feet	260 feet	-20	**55**
Trailer Stalls	R7	75	25 feet	190 feet	-18	**57**
Loading Docks	R8	75	25 feet	200 feet	-18	**57**
Trailer Stalls	R8	75	25 feet	200 feet	-18	**57**
Building C						
Trailer Stall (West)	R1	75	25 feet	190 feet	-18	**57**
Loading Docks	R8	75	25 feet	920 feet	-31	**44**
Trailer Stall (North)	R8	75	25 feet	810 feet	-30	**45**
Building D						
Loading Dock	R8	75	25 feet	900 feet	-31	**44**

Both daytime and nighttime predicted noise levels associated with air brakes for all buildings meet the 75 dBA daytime and 65 dBA nighttime 1.5-minutes per hour code limit on all Class A receiving properties.

Table 8.28 provides a summary of cumulative noise levels from all activities at each building to the nearest residential receiving properties. The predicted cumulative noise levels from the site meet the 60 dBA daytime code limit but exceed the 50 dBA nighttime limit for the Fulfilment Center scenario. The noise level is exceeded primarily due to truck idling, in addition to some contribution from noise associated with truck transit. The Industrial Park use scenario produces a higher cumulative noise level than the Fulfillment Center scenario under Action Alternative 2.

Table 8.28: Cumulative Noise Levels - LUC 130 (Hourly Code Limit)

Building	Source	R1	R7	R8
A	Transit	49		
	Idle (Dock)	55		
B	Transit		46	47
	Idle (Dock)		52	54
	Idle (Stall)		54	54
C	Transit	44		33
	Idle (Dock)	40		41
	Idle (Stall)	54		42
D	Transit			33
	Idle (Dock)			41
Total		**58**	**57**	**58**

8.5 Mitigation Measures

8.5.1 Common to Both Action Alternatives

During construction

Construction activities may only occur between the hours of 7:00 am and 10:00 pm, or as otherwise authorized by the municipal code. Per EMC 8.20.050(C)(1), construction activities between 7:00 am and 10:00 pm are exempt from noise limit regulations, and construction shall not occur between 10:00 pm and 7:00 am.

During operations

In limited instances, noise levels from the project site are predicted to exceed the nighttime code limits during nighttime operations at the nearest Class A receiving properties. Truck idling noise is the primary source exceeding the limit, in addition to some contribution from truck transit in the LUC 130 scenario.

To reduce noise from truck transit, noise barriers will be provided between the loading dock and trailer stall areas and receiving properties. The top of the noise barrier shall be at the height above grade. The bottom portion of the barrier can consist of an earth berm or retaining wall so long as the top of the barrier remains at the elevation above the grade of the truck activity area. The noise barrier shall be constructed with a solid material that has a surface mass of at least 2.5 lbs/sq ft.

Where nighttime idling is anticipated to occur, additional mitigation will be necessary to meet the code limits. A taller, 12-foot noise barrier wall will be utilized to mitigate noise impacts. ***Figure 8.4*** and ***Figure 8.5*** depict the proposed locations for the noise barrier walls for both Action Alternatives.

Figure 8.4: Action Alternative 1 – Proposed Noise Barrier for Nighttime Idling Scenario

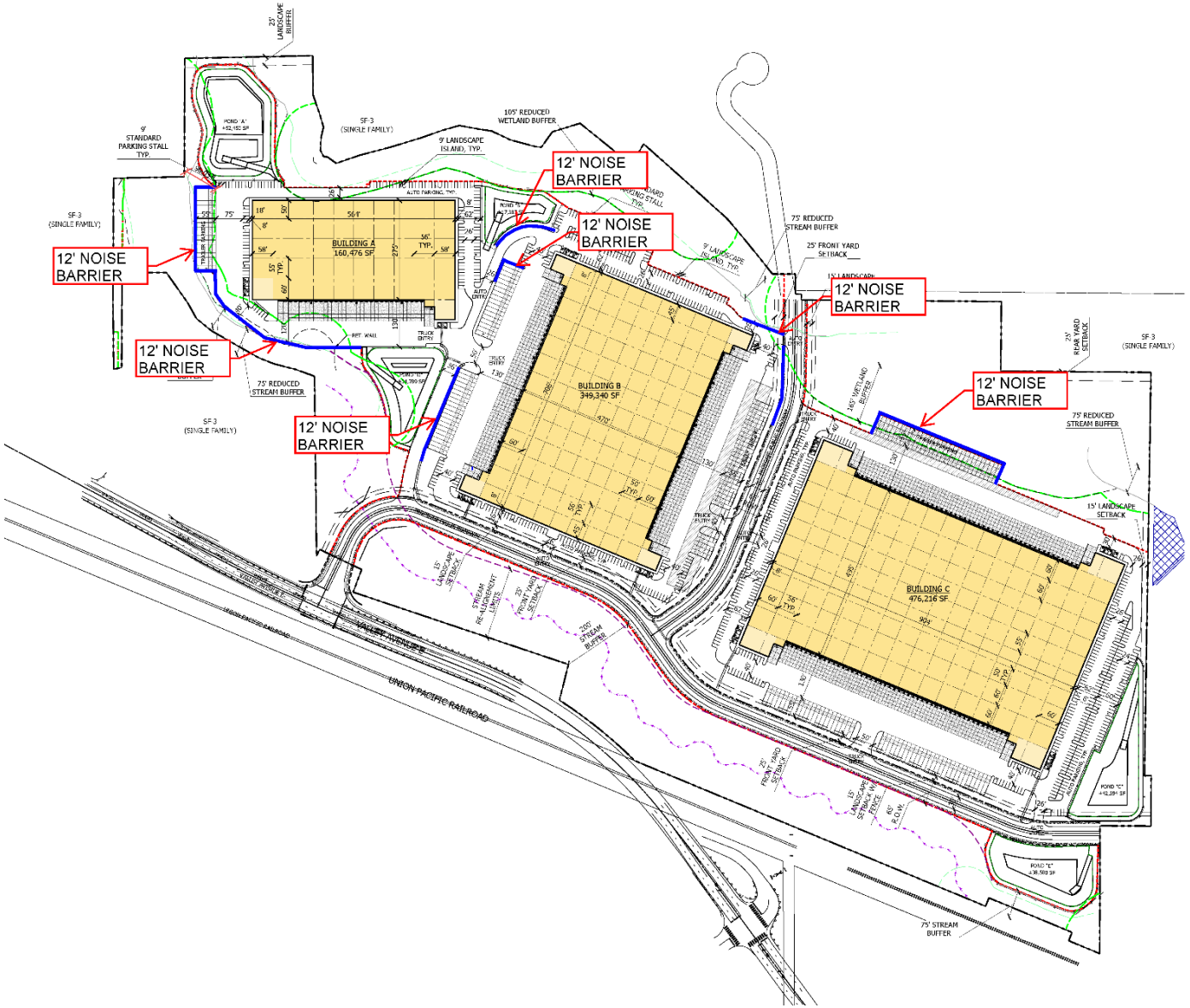
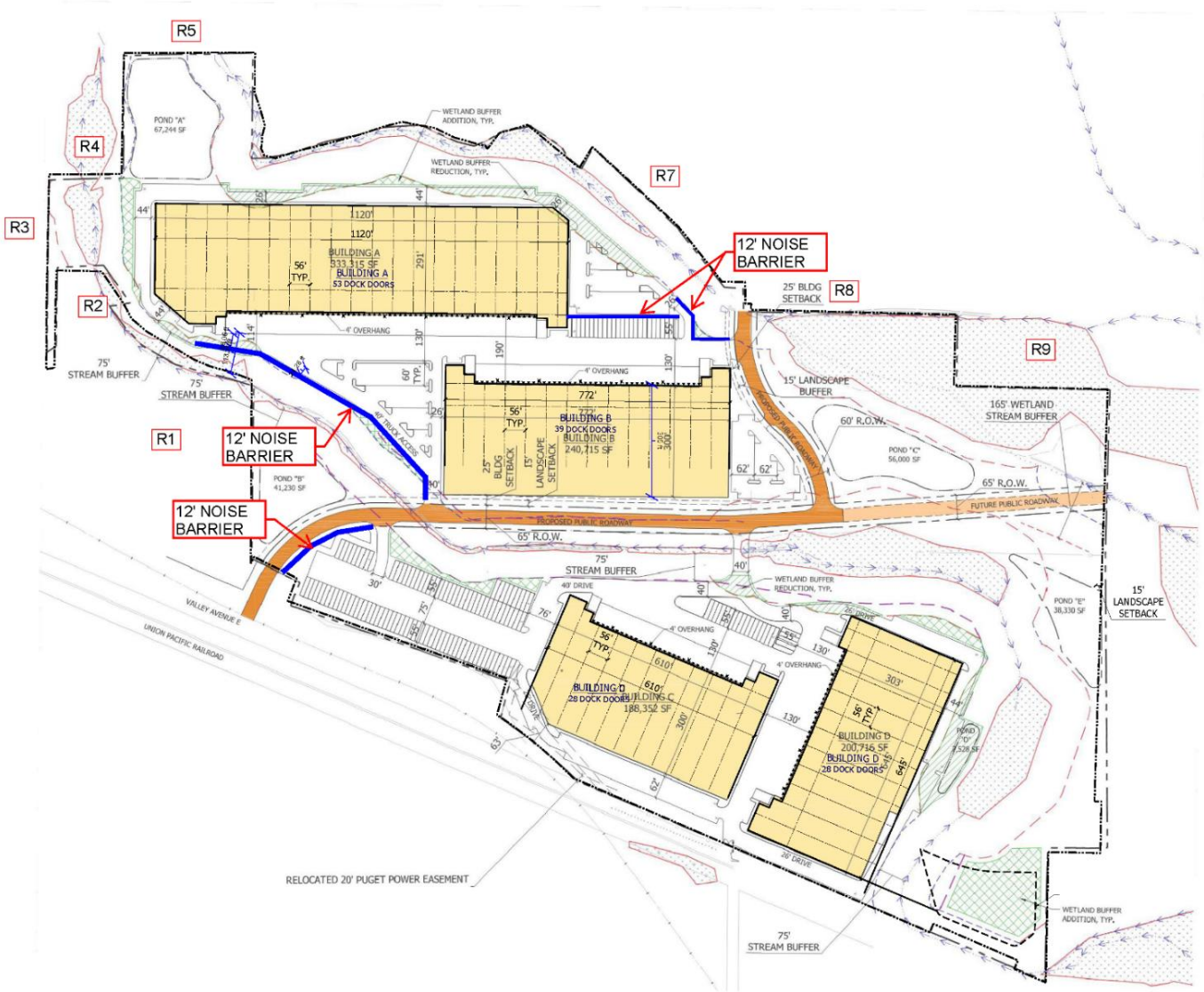


Figure 8.5: Action Alternative 2 – Proposed Noise Barrier for Nighttime Idling Scenario



8.5.2 Action Alternative 1

During operations

Action Alternative 1 may exceed nighttime code limits at the nearest residential receiving properties under both an Industrial Park (LUC 130) and a Fulfillment Center (LUC 155) use scenario. The primary source for the limit exceedance is due to truck idling noise (both scenarios) and some contribution from truck transit in the Industrial Park (LUC 130) use scenario.

Loading dock activities associated with all three (3) buildings will occur within the warehouse, keeping noise within the warehouse and truck loading areas and limiting noise to adjacent properties.

Table 8.29 through Table 8.32 below show the predicted cumulative noise levels with implementation of the mitigation measures described above for both Action Alternatives in scenarios with no nighttime idling and scenarios with nighttime idling where additional mitigation is applied.

Industrial Park - LUC 130

Table 8.29: Cumulative Noise Levels with Mitigation (No Nighttime Idling) – LUC 130 (nighttime only)

Building	Source	R1	R2	R4	R6	R8	R9
A	Transit	42	48	49			
B	Transit	47			47	47	
C	Transit					45	45
Total		**48**	**48**	**49**	**47**	**48**	**45**

With mitigation, including no nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

Table 8.30: Cumulative Noise Levels with Mitigation (Nighttime Idling/Additional Mitigation) – LUC 130

Building	Source	R1	R2	R4	R6	R8	R9
A	Transit	38	36	36			
	Idle (Dock)	42					
	Idle (Stall)		46	45			
B	Transit	43			32	34	
	Idle (Dock)	38			39	41	
	Idle (Stall)	39			35	42	
C	Transit					42	42
	Idle (Dock)					40	40
	Idle (Stall)					40	40
Total		**47**	**46**	**45**	**41**	**48**	**46**

With additional mitigation (taller noise wall) in the scenario with nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

Fulfillment Center - LUC 155

Table 8.31: Cumulative Noise Levels with Mitigation (No Nighttime Idling) – LUC 155

Building	Source	R1	R2	R5	R6	R8	R9
A	Transit	48	45	46	46	44	
B	Transit	44					42
C	Transit					42	
Total		**49**	**45**	**46**	**46**	**46**	**42**

With mitigation, including no nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

Table 8.32: Cumulative Noise Levels with Mitigation (Nighttime Idling/Additional Mitigation) – LUC 155

Building	Source	R1	R2	R4	R6	R8	R9
A	Transit	35	35	33			
	Idle (Dock)	42					
	Idle (Stall)		46	45			
B	Transit	43			32	34	
	Idle (Dock)	38			39	41	
	Idle (Stall)	39			35	42	
C	Transit					42	42
	Idle (Dock)					40	40
	Idle (Stall)					40	40
Total		**47**	**46**	**45**	**41**	**48**	**46**

With additional mitigation (taller noise wall) in the scenario with nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

8.5.3 Action Alternative 2

During Operations

Action Alternative 2 may exceed nighttime code limits at the nearest residential receiving properties under both an Industrial Park (LUC 130) and a Fulfillment Center (LUC 155) use scenario. The primary source for the limit exceedance is due to truck idling noise (both scenarios) and some contribution from truck transit in the Industrial Park (LUC 130) use scenario.

Loading dock activities associated with all four (4) buildings will occur within the warehouse, keeping noise within the warehouse and truck loading areas and limiting noise to adjacent properties. The loading docks along the south end of Building A are separated from the adjacent properties to the north, reducing the levels of noise received by these properties.

Table 8.33 through Table 8.36 below show the predicted cumulative noise levels with implementation of the mitigation measures described above for both Action Alternatives in scenarios with no nighttime idling and scenarios with nighttime idling where additional mitigation is applied.

Industrial Park - LUC 130

Table 8.33: Cumulative Noise Levels With Mitigation (No Nighttime Idling) – LUC 130 (Hourly Code Limit)

Building	Source	R1	R7	R8
A	Transit	41		
B	Transit		49	50
C	Transit	46		36
D	Transit			36
Total		**47**	**49**	**50**

With mitigation, including no nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

Table 8.34: Cumulative Noise Levels with Mitigation (Nighttime Idling/Additional Mitigation) – LUC 130

Building	Source	R1	R2	R4
A	Transit	40		
	Idle (Dock)	45		
B	Transit		39	39
	Idle (Dock)		44	45
	Idle (Stall)		44	44
C	Transit	36		36
	Idle (Dock)	40		40
	Idle (Stall)	44		42
D	Transit			36
	Idle (Dock)			41
Total		**49**	**48**	**50**

With additional mitigation (taller noise wall) in the scenario with nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

Fulfillment Center - LUC 155

Table 8.35: Cumulative Noise Levels with Mitigation – LUC 155 (Hourly Code Limit)

Building	Source	R1	R7	R8
A	Transit	38		
B	Transit		46	47
C	Transit	44		33
D	Transit			33
Total		**45**	**46**	**47**

With mitigation, including no nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

Table 8.36: Cumulative Noise Levels with Mitigation (Nighttime Idling/Additional Mitigation) – LUC 130

Building	Source	R1	R2	R4
A	Transit	37		
	Idle (Dock)	45		
B	Transit		39	39
	Idle (Dock)		44	44
	Idle (Stall)		44	45
C	Transit	33		36
	Idle (Dock)	40		40
	Idle (Stall)	44		42
D	Transit			33
	Idle (Dock)			41
Total		**49**	**48**	**50**

With additional mitigation (taller noise wall) in the scenario with nighttime idling, the predicted cumulative noise levels are within the 50 dBA nighttime code limit at the residential receiver locations.

8.6 Significant Impact Determination

This environmental review determined that any adverse impacts related to noise that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures described above including no construction work between the hours of 10:00 pm and 7:00 am, prohibiting nighttime idling, installation of noise barriers, and loading dock activities occurring within the warehouses. In scenarios where nighttime idling may occur additional mitigation of a taller noise wall will be required to mitigate noise impacts.

9. Land Use

This chapter describes how implementation of either of the Action Alternatives could impact land uses in the vicinity of the project site compared to the No Action Alternative.

9.1 Affected Environment

9.1.1 Land Uses

Land Ownership on the Project Site

The project site consists of an approximately 88.7-acre site located at 4309, 4321, 4119, 4211, 4223, 4120, 3926, and 4411 90th Avenue East; 9007, 9019, and 9105 43rd Street Court East; 3907 84th Avenue Court East; XXX 38th Street East; 8719 and XXX 42nd Street Court East; XXX 40th Street East; and XXX Valley Avenue East in the City of Edgewood, Washington. The City of Puyallup is immediately south of the project site, and the City of Fife is approximately 0.3 miles west of the project site. There are 15 tax parcels that comprise the project site, all of which are owned by Prologis. See ***Table 9.1*** and ***Figure 9.1***: Project Site Pierce County Tax Parcel Numbers below.

Table 9.1: Land Ownership on the Project Site

Parcel Number	Property Owner
0420163003	Prologis LP
0420163051	Prologis LP
0420163052	Prologis LP
0420163074	Prologis LP
0420163076	Prologis LP
0420167704	Prologis LP
0420167705	Prologis LP
0420167706	Prologis LP
0420175004	Prologis Exchange WA 2003 LLC
0420175015	Prologis Exchange WA 2003 LLC
0420163055	Prologis Exchange WA 2003 LLC
0420163026	Prologis Exchange WA 2003 LLC
0420167703	Prologis Exchange WA 2003 LLC
0420163047	Prologis LP
0420163023	Prologis Exchange WA 2003 LLC

Figure 9.1: Project Site Pierce County Tax Parcel Numbers

Land Uses on the Project Site

The majority of the project site was previously used for agricultural production and consisted of several managed agricultural fields, associated buildings and infrastructure, and single-family residences. Pierce County tax parcel number 0420163052 consisted of a small industrial development, and six (6) of the parcels on the southeast portion of the property (0420163055, 0420163047, 0420167703, 0420163051, 0420163003, and 0420163074) contained single-family residences with associated agricultural production. All previous residential, industrial, and agricultural structures have been demolished and the site is currently vacant.

The project includes high cube/fulfillment center uses with warehouse facilities and/or industrial park buildings and associated truck loading docks, outdoor trailer storage, vehicle and trailer access ways and parking, and infrastructure and utilities for the project. The proposed uses also include those that are accessory to warehouse uses such as general office and outdoor storage. The specific tenants are not yet known but are anticipated to be a combination of high cube/fulfillment center uses and/or industrial park with warehouse facilities. The City of Edgewood Future Land Use Map, in the 2024 City of Edgewood Comprehensive Plan, designates the project site as Industrial, which supports the proposed project uses under both Action Alternatives.

As provided in Chapter 6, Groundwater, certain land uses are regulated and may be prohibited due to being located within a critical aquifer recharge area. Critical aquifer recharge areas and wellhead protection areas are subject to EMC Chapter 14.60 Aquifer Recharge and Wellhead Protection Areas which provides additional standards for the permitted activities and uses within these areas. Prohibited uses include landfills, underground injection wells, metals mining, wood treatment facilities, pesticide manufacturing, and petroleum refining/storage facilities. Title notification shall be required for all properties within the project site stating that these uses are prohibited in accordance with EMC 14.60 at the time of the land use decision.

Land Uses in the Project Vicinity

The project site is within the City of Edgewood and within a one-mile radius of the project site are the cities of Fife and Puyallup. Within the City of Edgewood, the project site is adjacent to single-family residences, apartments, and the Cherrywood Mobile Manor mobile home park. The Edgewood Community Park, multifamily residences, and commercial uses are located within a one-mile radius (within Edgewood) and are clustered primarily near Meridian Avenue East.

The land uses within the Fife and Puyallup areas of the one-mile radius primarily include commercial and industrial uses and uses similar to those planned for the proposed project, such as LSI Logistics Service Solutions and FedEx. There are some residential uses in Fife and Puyallup within the one-mile radius, including single-family residences, multifamily residences, and mobile home parks. The Puyallup Recreation Center and River Walk Trail are also within a one-mile radius of the project site.

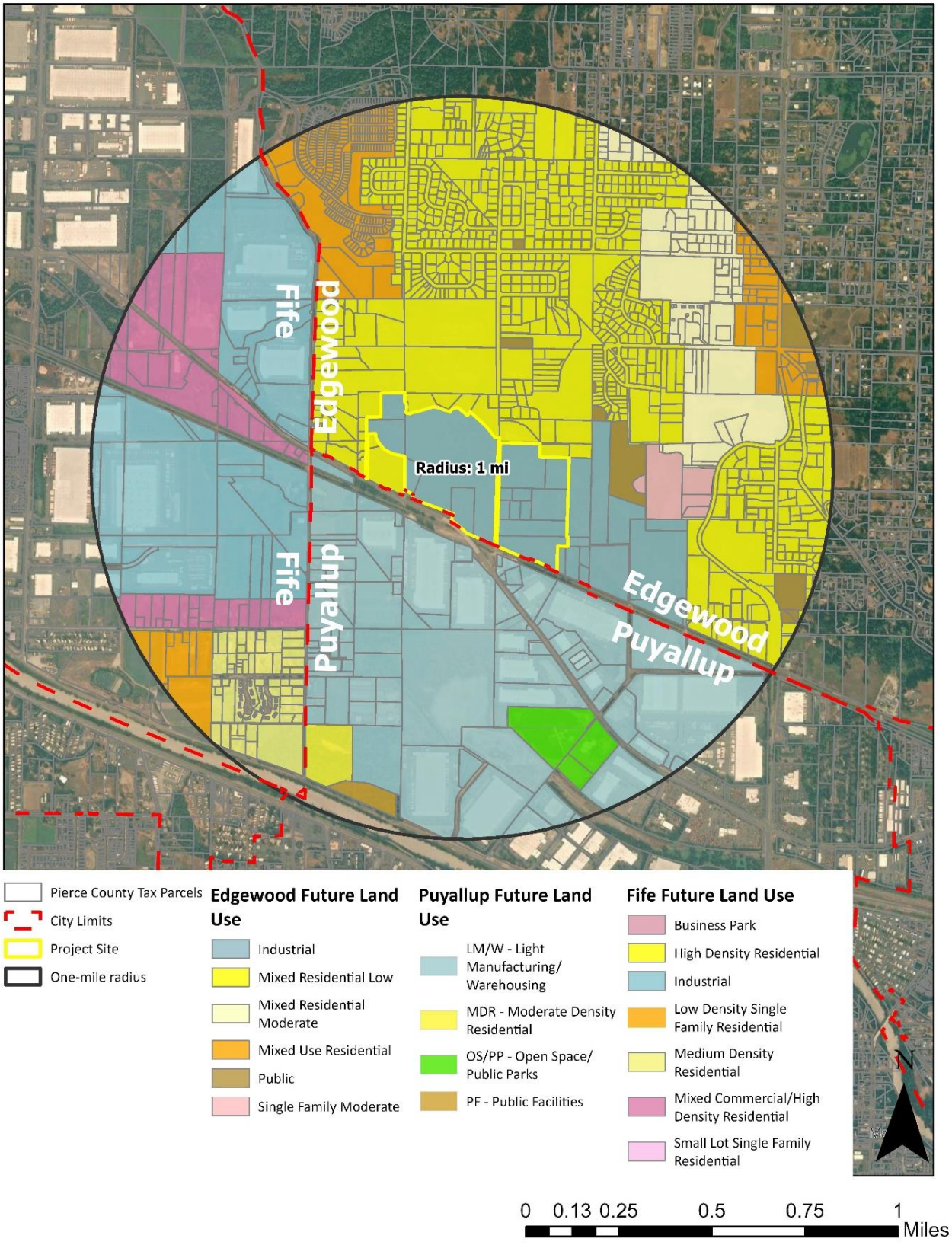
Many of the parcels in the immediate vicinity of the project site have a future land use designation of Industrial per the cities of Edgewood, Fife, and Puyallup future land use maps. Parcels east of the project site are also designated as Industrial and parcels to the west and north of the project site are designated Mixed Residential Low.

The City of Puyallup Future Land Use Map designates all parcels south of the project site as Light Manufacturing/Warehousing. The City of Fife Future Land Use Map designates parcels west of the project site as Industrial.

Although parcels adjacent to the north and west of the project site have land use designations of Mixed Residential Low, the overall vicinity includes many parcels designated for industrial land uses. Therefore,

the Mixed Residential Low designated parcels are likely to be adjacent to, or in the vicinity of, future industrial development in the cities of Edgewood, Fife, and Puyallup. ***Figure 9.2*** shows the future land use designations of parcels within a one-mile radius of the project site.

Figure 9.2: Future Land Use Map in Project Site Vicinity



Source: City of Edgewood (2025), City of Fife (2019), and City of Puyallup (2021)

Recreational and Public Facilities in the Vicinity of the Project Site

No formal or informal recreation facilities or activities occur on the project site. Per the Transportation Element of the City of Edgewood Comprehensive Plan, several non-motorized routes are located in the project vicinity, including a proposed rural route through the project site. Additionally, the Washington State Department of Transportation (WSDOT) is planning a Tacoma-Puyallup trail near the northwest end of the project site. Within a one-mile radius of the project site there are three (3) recreational facilities including the Puyallup Recreation Center and Sports Complex, Edgewood Community Park, and the Riverwalk Trail (Puyallup). Given that the nearest of these recreational facilities is approximately 0.8 miles from the project site, it is anticipated that none of the existing recreational facilities in the vicinity of the site will be significantly impacted by this proposal.

Historic and Cultural Resources on and Surrounding the Project Site

According to the Washington Information System for Architectural and Archeological Records Data (WISAARD), approximately 208 historic inventory properties (determined not eligible for listing on historic registers) have been recorded within one-mile of the project site. The historic inventory properties that are off-site are 250 feet or more from the project site and are separated by bridges, roadways, and/or residential structures. On the project site, 14 historic properties[10] (recommended not eligible for listing on historic registers) and one (1) archaeological site (recommended as potentially eligible for listing on the National Register of Historic Places (NRHP) and the Washington Heritage Register (WHR) have been recorded. A property may be listed in the WISAARD inventory based on the year it was built but may not meet the assessment criteria of the NRHP to be considered "historically significant." In order to be classified as "historically significant," a property shall either be associated with a historical event, associated with the lives of significant persons, the construction method or style must be representative of distinctive characteristics of a time period, or must have yielded important information in history. The buildings located on-site did not meet the necessary criteria to be listed on historic registers and are therefore recommended not eligible for listing on the NRHP and the WHR. All of these buildings have been demolished.

The *Cultural Resources Assessment* dated March 5, 2024, prepared by Cultural Resource Consultants, found that the ground disturbing activities associated with the development of either Action Alternatives will impact the archaeological site (45PI106) that was discovered during subsurface surveying using shovel probes. Both Action Alternative 1 and Action Alternative 2 are unlikely to encounter other archaeological materials in areas that shovel probes were used. However, there is evidence that archaeological resources may be present in those areas on the project site that were inaccessible for surveying. To mitigate these impacts, a Monitoring and Inadvertent Discovery Plan (MIDP) shall be developed prior to ground disturbing activities and be implemented during all construction activities on or in the vicinity of the project site. For more information see Section 4, Cultural Resources.

9.1.2 Plans and Policies

9.1.2.1 2024 City of Edgewood Comprehensive Plan

The City of Edgewood 2024 Comprehensive Plan provides a vision with associated goals and policies to develop implementable strategies to achieve the vision over a 20-year period. The Plan also serves as a legal framework for the City's regulations and helps guide future decision making in accordance with the Washington State Growth Management Act (GMA), Pierce County Countywide Planning Policies, and Puget Sound Regional Council (PSRC) guidance. As previously discussed in Section 9.1.1, the Future Land Use Map designates the project site as Industrial, with the surrounding uses to the west and north designated as Mixed Residential Low (see ***Figure 9.3***). Parcels to the east are designated as Industrial and

[10] Note all structures have been demolished.

parcels to the south are within the City of Puyallup and are therefore not included in the Edgewood Future Land Use Map.

City of Edgewood Comprehensive Plan Policies
This section discusses the land use policies in the 2024 Edgewood Comprehensive Plan that are applicable to the proposed development.

Industrial Uses
The City of Edgewood 2024 Comprehensive Plan states the following intent for industrial land use designations:

"The Industrial designation is intended to accommodate industrial uses providing local and regional employment opportunities, such as research, light manufacturing, and warehousing. Compatible uses are also allowed."

The Comprehensive Plan includes the following goal and associated policies related to industrial uses:

Goal LU.11	**Accommodate and facilitate industrial development that positively contributes to Edgewood's economy and character.**
LU.11.a	Establish opportunities for a range of industrial uses, such as regional research, manufacturing, warehousing or other regional employment uses.
LU.11.b	Expand the number and type of industrial uses in the City through more intensive use of existing industrial lands and expansion of industrial uses in appropriate locations.

The proposal supports Goal LU.11, as it is an industrial development that will contribute to the economy by increasing available tenant space for industrial related businesses and providing employment within the City. Additionally, the proposed project will be subject to all applicable zoning regulations and development standards to ensure compatibility with Edgewood's character. Specific tenants are unknown at this time. Uses are anticipated to include a combination of a high cube/fulfillment center and or/industrial park with warehouse facilities which will further the goals of the Comprehensive Plan aimed at providing a variety of industrial uses.

9.1.3 Zoning

9.1.3.1 Edgewood Municipal Code

The City's development code is Edgewood Municipal Code Title 18 Development Standards, which has the following general purpose:

> *"To implement the city of Edgewood comprehensive plan, as adopted and subsequently amended. The goal is to protect and promote the health, safety, and general welfare of Edgewood's citizens by guiding planning and land use decisions. This title promotes development, reduced street congestion, and enhanced fire and public safety. It also encourages adequate public infrastructure, such as transportation, domestic water, sanitary sewer, sanitary septic, schools, parks, and storm drainage."*

All of the parcels on the project site are zoned Industrial. All adjacent parcels east of the project site are zoned Industrial, and all properties adjacent to the north and west (within the City of Edgewood) are zoned Mixed Residential 1 (MR-1). To the south of the project site is Edgewood City limits.

Although the specific tenants are unknown at this time, the anticipated uses of high-cube fulfillment center or industrial park with warehouse facilities are classified as "light manufacturing" and "warehousing", which are both permitted uses in the Industrial zone. Light manufacturing and warehousing uses are defined below, per EMC Chapter 18.20.

- **Manufacturing, light:** *"Small-size facilities where no heavy manufacturing or specialized industrial processes takes place. Typical light manufacturing activities include, but are not limited to, printing, material testing, and assembly components."*
- **Warehousing and Storage, all other:** *"A structure or part of a structure, used for storing goods, wares, and merchandise, whether for the owner of the structure or for others. This category does not include mini-warehouses and self-storage units."*

9.1.3.2 Adjacent Jurisdiction Zoning

City of Puyallup

Directly adjacent to the southern boundary of the project site is Valley Avenue East and the Union Pacific Railroad, which form the boundary between the City of Edgewood and the City of Puyallup. Parcels that are adjacent to the project site, to the south and within the City of Puyallup, are all zoned Limited Manufacturing. The Puyallup Municipal Code (PMC 20.15.005) defines Limited Manufacturing as follows:

> *"A use involving the manufacture, assembly, processing or treatment of parts, materials, goods, foodstuffs, and products intended for general distribution. Production processes may not employ the extensive use of hazardous or volatile materials or chemicals, or continuous high levels of noise. Typical uses include contractors shops, metal fabrication, custom boat building, indoor storage of bulk materials and machinery, nonflammable gas production, warehouse and distribution facilities, publishing plants, vehicle repair facilities, storage units, or towing yards."*

Other parcels within a one-mile radius of the site include the following Puyallup zoning designations and stated purposes:

> Public Facilities - *"to provide public awareness of the possible uses of neighboring public land; accommodate a variety of government uses, while providing minimum performance standards for new developments and mitigating the potential for adverse off-site impacts; provide a graphic record of major publicly owned parcels; and allow for a more accurate assessment of other land use designations as they relate to the overall growth and development of the city."*
>
> Medium Density Multiple-Family Residential 10 - "*to provide for a mix of single-family dwelling, duplex, triplex, fourplex and townhouse residential housing types. This zone is intended to provide an alternative to conventional single-family detached development patterns with many of the same attributes of such patterns including home ownership, distinct identity of dwelling units, and private open space.*"

City of Fife

To the west of the project site is a small group of Mixed Residential 1 zoned parcels between the project site and the Edgewood city limits, which is bounded by Freeman Road East (approximately 0.3 miles west of the site). Directly west of Freeman Road East is the City of Fife. Parcels within the City of Fife that are within a one-mile radius of the project site include the following zones and stated purposes:

> Community Commercial - "*to meet the needs of the residents of Fife by facilitating a wide range of community-oriented retail, service, professional, recreational and entertainment uses. Pedestrian-oriented storefronts and plaza-based intersections are encouraged. The district is further intended to*

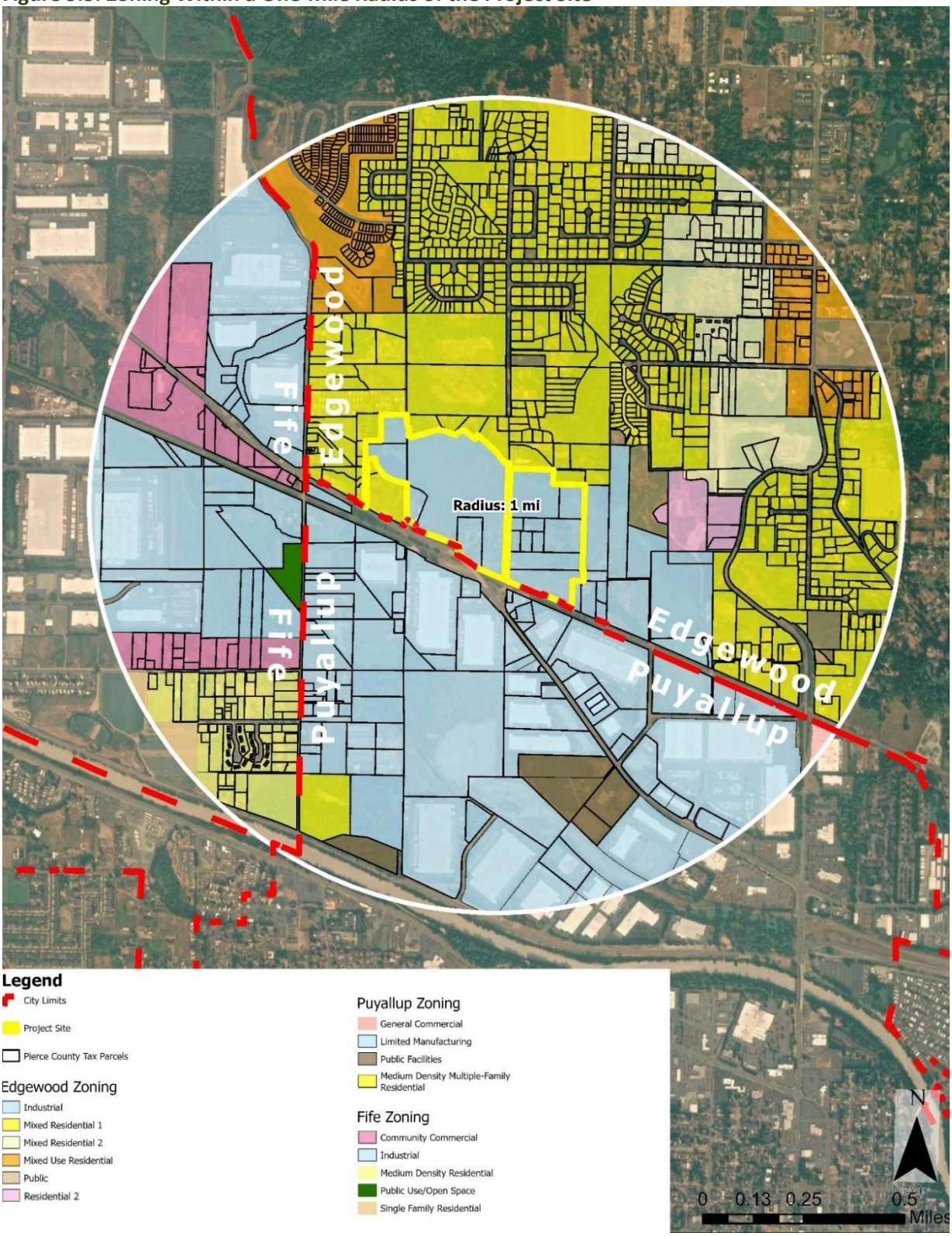
provide for residential uses, including single-family, duplex, triplex, multifamily and mixed use developments."

Industrial - "*to provide appropriate areas for a broad range of industrial activities that promote economic development while remaining complementary and not detrimental to neighboring commercial and residential districts. Furthermore, industrial activities may be required to participate in a planned development in order to achieve a quality, campus-like industrial environment. The district's uses include assembling, distributing, manufacturing, packaging, warehousing, research and related administrative and commercial activities, asa well as limited retail and recreational uses."*

Medium Density Residential – "*to provide for a mixture of residential dwelling units, including single-family dwelling units, duplexes, triplexes and multifamily dwelling units. Planned developments that provide a variety of housing types and densities are encouraged.*"

Low Density Residential - *"to be characteristic of a low-density residential neighborhood, incorporating a variety of housing types."*

Figure 9.3: Zoning Within a One-Mile Radius of the Project Site



Source: City of Edgewood (2025), City of Fife (2021), and City of Puyallup (2023)

9.2 Environmental Impacts

9.2.1 No Action Alternative

The No Action Alternative would result in the site remaining undeveloped and no impacts to land use would be expected.

9.2.2 Both Action Alternatives

Both Action Alternatives propose the same uses for the project site and neither of the Action Alternatives would incur a change in land use or zoning to the project site or surrounding properties. As the project site is currently vacant, the proposed project will not result in the loss of existing uses on the property.

Consistency with the 2024 Edgewood Comprehensive Plan

The development of either Action Alternative would allow for the expansion of industrial development within the City, leading to further economic and employment opportunities, in alignment with Goal LU.11 of the 2024 Edgewood Comprehensive Plan. Both Action Alternatives are also consistent with the Comprehensive Plan's Future Land Use Map.

Consistency with Edgewood Zoning

The proposed uses of both Action Alternatives (warehousing and light manufacturing) are permitted outright in the Industrial zone. The Industrial zone provides for regional light manufacturing and warehousing, which will be achieved through both Action Alternatives due to its location for regional business at the intersection of Edgewood, Puyallup, and Fife. Both Action Alternatives will be subject to all applicable EMC zoning regulations and development standards to ensure compatibility with other surrounding properties and Edgewood as a whole.

9.3 Mitigation Measures

No mitigation measures are necessary to address potential impacts to land use compatibility.

9.4 Significant Impact Determination

This environmental review determined that there would be **no significant adverse impacts** to land use within the vicinity of the project site by either of the Action Alternatives. Development of any of the Action Alternatives would be consistent with Edgewood land use policies and zoning regulations.

10. Economic and Social Policy

This chapter describes how implementation of either of the Action Alternatives could impact the local and regional economy and the potential social impacts in the vicinity of the project site. This chapter is based on a report prepared by Johnson Economics, LLC titled *Economic Analysis for Environmental Impact Statement Under City of Edgewood Project* dated December 2023 (Appendix X) and accompanying memorandum titled *Addendum to Economic Analysis for Environmental Impact Statement,* dated April 4, 2024 (Appendix Y).

10.1 Affected Environment

The effected environment includes the local and regional economy in the vicinity of the project site, including the City of Edgewood and Pierce County as a whole.

10.2 Economic Impacts

10.2.1 No Action Alternative

The No Action Alternative would result in the site remaining undeveloped and no economic impacts would be expected. The No Action Alternative would result in little to no economic activity, with significantly lower property tax revenues. In 2023, the existing land was valued at approximately $31.6 million ($8.33 per square foot) for the entire project site. The No Action Alternative would see no site improvements and therefore significantly lower property tax revenues than either of the Action Alternatives.

Table 10.1: Projected Property Tax Revenues Based on 2023 Levy Rates for Each Alternative

	Levy per $1,000	No Action Alternative	Action Alternative 1	Action Alternative 2
Assessed Value				
Land		$31,600,000	$31,600,000	$31,600,000
Improvements		$0	$170,400,000	$154,400,000
Taxing District				
Transit	$0.16	$5,056	$32,320	$29,760
City of Edgewood	$0.69	$21,804	$139,380	$128,340
Conservation Futures	$0.03	$948	$6,060	$5,580
County Tax	$0.73	$23,068	$147,460	$135,780
Flood	$0.10	$3,160	$20,200	$18,600
Fire	$1.50	$47,400	$303,000	$279,000
Port	$0.13	$4,108	$26,260	$24,180
Library	$0.33	$10,428	$66,660	$61,380
Local School	$3.27	$103,332	$660,540	$608,220
State of Washington	$2.31	$72,996	$466,620	$429,660
Total		**$292,300**	**$1,868,500**	**$1,720,500**

Source: Economic Analysis prepared by Johnson Economics, LLC

10.2.2 Impacts Common to Both Action Alternatives

Economic impacts for both Action Alternatives were identified utilizing an average employee density of one (1) employee per 750 SF of space. The average employee density was determined using a building size assumption of up to 1,065,000 SF for Action Alternative 1 and up to 965,000 SF for Action Alternative 2.

Construction Impacts

Temporary impacts associated with construction include increased temporary employment opportunities, which provides similar temporary benefits as those described in the operation impacts below. While construction jobs account for a majority of the increase in temporary employment, a significant number of jobs and payroll will be for retail, food services, medical care, architectural and engineering, and a broad range of other industry sectors.

Operation Impacts

The development of either of the Action Alternatives would result in increased employment opportunities in both the City of Edgewood and Pierce County. Additional employment opportunities can support higher local wage levels. Employees in the operations of either of the Action Alternatives are expected to generate income that will circulate in the local economy, supporting additional employment and tax revenues.

The increase in assessed values resulting from development could decrease necessary tax rates for levy requirements for other properties in the vicinity of the site served by the same service districts.

10.2.3 Action Alternative 1

Construction Impacts

Project construction would require an estimated 1,024 full time equivalent positions and result in an average annual compensation of $82,800 (2023 dollars) for a total of $84.8 million in labor income under Action Alternative 1. During construction, Action Alternative 1 is expected to generate $25.2 million in federal taxes, and $11.4 million in state and local taxes.

Operation Impacts

Once construction is complete, an estimated 1,420 employees will be required, with a total annual labor income estimate of $100.5 million. An additional 646 jobs are expected to result from associated ancillary indirect impacts, resulting in a total impact of 2,066 full time equivalent employees and a total annual labor income estimate of $141.6 million.

The development of Action Alternative 1 would generate tax revenue from sales and property taxes. Once construction is complete, the expected state and local tax revenue is $9.6 million per year and $32.9 million per year in federal taxes.

Cumulative Impacts

The 10-year employment projection of both construction and operations is approximately 17,000 employees with a total payroll of $1.38 billion. Under Action Alternative 1, average annual direct employment over the 10-year period would be over 1,100 full time equivalent employees.

10.2.4 Action Alternative 2

Construction Impacts

Project construction would require an estimated 927 full time equivalent positions and result in an average annual compensation of $82,800 (2023 dollars) for a total of $76.8 million in labor income under

Action Alternative 2. During construction, Action Alternative 2 is expected to generate $22.9 million in federal taxes, and $10.3 million in state and local taxes.

Operation Impacts

Once construction is complete, an estimated 1,287 employees will be required, with a total annual labor income estimate of $91.1 million. An additional 585 jobs are expected to result from associated ancillary indirect impacts, resulting in a total impact of 1,872 full time equivalent employees and a total annual labor income estimate of $128.3 million.

The development of Action Alternative 2 would generate tax revenue from sales and property taxes. Once construction is complete, the expected revenue is $8.7 million per year in state and local taxes and $29.8 million per year in federal taxes.

Cumulative Impacts

The 10-year employment projection of both construction and operations is approximately 14,900 employees with a total payroll of $1.21 billion. Under Action Alternative 2, average annual direct employment over the 10-year period would be over 1,000 full time equivalent employees.

10.3 Social Policy Impacts

10.3.1 No Action Alternative

The No Action Alternative would result in the site remaining undeveloped and no social impacts would be expected.

10.3.2 Impacts Common to Both Action Alternatives

The construction and ongoing operation of the proposed development is expected to have limited social impacts. Both Action Alternatives would provide an increased level of employment, allowing for greater access to local employment opportunities for residents of the City of Edgewood and Pierce County. Providing employment opportunities within the City of Edgewood can support more efficient commuting patterns that can provide financial benefits that increase the level of income available to meet housing and other needs. Additionally, the development programs do not include housing and as such are not expected to increase service demands for the local school districts. Other potential social impacts are related to traffic congestion and noise pollution on neighboring residential areas which will be mitigated (see Chapter 8 Noise and Chapter 11 Transportation).

10.4 Mitigation Measures

No mitigation measures are proposed to address potential economic and social policy impacts under either of the Action Alternatives.

10.5 Significant Impact Determination

This environmental review determined that there would be **no significant adverse impacts** to economic and social policies within the vicinity of the project site by either of the Action Alternatives.

11. Transportation

This chapter describes how the implementation of either of the Action Alternatives could impact transportation in the vicinity of the project site compared to the No Action Alternative. This chapter is based on the *Transportation Discipline Report (TDR)* prepared by Transpo Group, dated July 2025, which is referred to herein as the TDR (Appendix Z) and *Prologis DEIS Pavement Analysis FWD Testing and Pavement Coring* prepared by HWA GeoSciences Inc., dated March 26, 2024 (Appendix AA).

11.1 Methodology

Five (5) alternatives are evaluated in the TDR including the No Action Alternative and the two (2) Action Alternatives. Each of the Action Alternatives were analyzed under two (2) scenarios for both a high-cube fulfillment center warehouse use and an industrial park use, defined below:

- **High-Cube Fulfillment Center Warehouse:** Fulfillment center that ships out smaller items, requiring extensive sorting, typically by manual means.
- **Industrial Park:** Multiple industrial uses in a single area.

The Alternatives are summarized below:

1. **No Action Alternative** - No development of the project site.
2. **Action Alternative 1** - Project with relocation of Wapato Creek (high-cube fulfillment center). Action Alternative 1 would include development of three (3) buildings totaling up to 1,065,000 SF of high-cube fulfillment center warehouse. To accommodate the proposed project size, the existing Wapato Creek would be relocated to the south. Access to the site would be provided from Valley Avenue East via 42nd Street Court East. Additionally, the project includes construction of approximately 2,500 linear feet of new railroad frontage public roadway between 86th Avenue East and 42nd Street Court East and approximately 93rd Avenue East/44th Street Court East, which would provide an additional access to the project from the east once the railroad frontage public roadway is completed.
3. **Action Alternative 1a** - Project with relocation of Wapato Creek (industrial park). All development (building size, number of buildings, access, etc.) associated with Action Alternative 1a is consistent with Action Alternative 1 except the project would be developed as an industrial park.
4. **Action Alternative 2** – Project without relocation of Wapato Creek (high-cube fulfillment center). Action Alternative 2 is consistent with Action Alternative 1 except it would not include the relocation of Wapato Creek, which would reduce the proposed development to approximately 965,000 SF of high-cube fulfillment center warehouse through the construction of four (4) buildings.
5. **Action Alternative 2a** - Project without relocation of Wapato Creek (industrial park). Action Alternative 2a is consistent with Action Alternative 2 except the project would be developed as an industrial park.

This DEIS focuses on the No Action Alternative as compared to Action Alternative 1, and Action Alternative 2, as the high-cube fulfillment center warehouse assumes the greatest level of traffic impacts. See the *TDR* (Appendix Z) for full analysis on both the high-cube fulfillment center warehouse and industrial park use.

The scope of the analysis included the following elements: street system, non-motorized transportation, transit service, traffic volumes, traffic operations, equivalent single axle loads (ESALs), and traffic safety.

Two (2) future horizon years were evaluated:

- 2026 horizon year – The Prologis Park development horizon year, accounting for conditions prior to the future SR 167 extension, is anticipated to be 2026.
- 2030 horizon year – Analysis will evaluate operations with the SR 167 extension Stage 2 completed, which is estimated to be completed by 2029.

The operational characteristics of an intersection are determined by calculating the intersection level of service (LOS). LOS is measured in average delay per vehicle and is reported for the intersection as a whole for traffic signal and roundabout controlled intersections. At two-way stop-sign controlled intersections, LOS is reported for those movements that have a reported delay at the intersection. Traffic operations for an intersection can be described alphabetically with a range of levels of service (LOS A through F), with LOS A indicating free-flowing traffic and LOS F indicating extreme congestion and long vehicle delays.

The current LOS standard is LOS D at all study intersections except for the following study intersections which have an LOS E standard[11]:

- Intersection 8: Meridian Avenue East (SR 161)/36th Street East
- Intersection 14: Meridian Avenue North (SR 161)/Valley Avenue Northwest
- Intersection 18. Meridian Avenue North (SR 167)/River Road (SR 167)/2nd Street Northeast

Trip Distribution

The project trip distribution for the Action Alternatives was estimated for both the weekday AM and PM peak hours with and without the SR 167 extension Stage 2. The City of Tacoma travel demand model, which is based on the Puget Sound Regional Council model, was utilized to estimate the distribution patterns assuming a select link analysis for existing industrial uses in the vicinity of the project site.

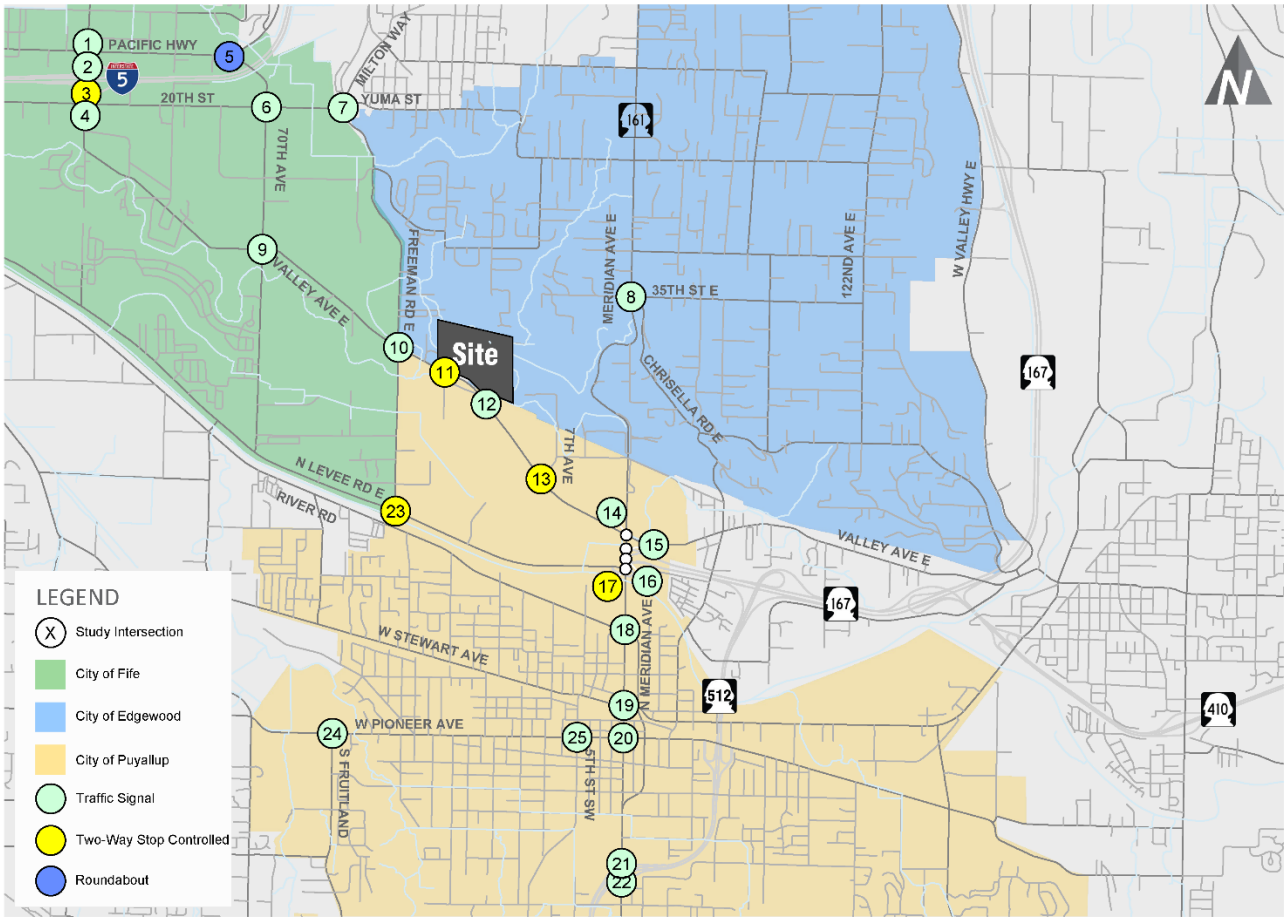
The Action Alternatives 1 and 2 net new vehicular trip generation were each assigned to the network based on the 2026 and 2030 trip distribution patterns throughout the study area.

11.1.1 Study Area

The study area includes 24 off-site intersections (see ***Figure 11.1***) during the AM and PM peak hours as well as the site access created with both Action Alternatives (study intersection 11 in ***Figure 11.1***). The off-site intersections studied within the TDR were selected based on net new trip generation estimates for each Action Alternative, trip distribution assumptions, and coordination with surrounding jurisdictions during scoping.

[11] Based on the City of Edgewood, the City of Fife, the City of Puyallup, Pierce County, and WSDOT. The City of Edgewood has adopted a LOS standard of E for Meridian Avenue East. Additionally, WSDOT identifies a LOS E mitigated standard at the Meridian Avenue North (SR 161)/Valley Ave Northwest intersection.

Figure 11.1: Study Intersection Locations



Site Vicinity, Study Intersections, and Traffic Control

Prologis

FIGURE 11.1

transpogroup

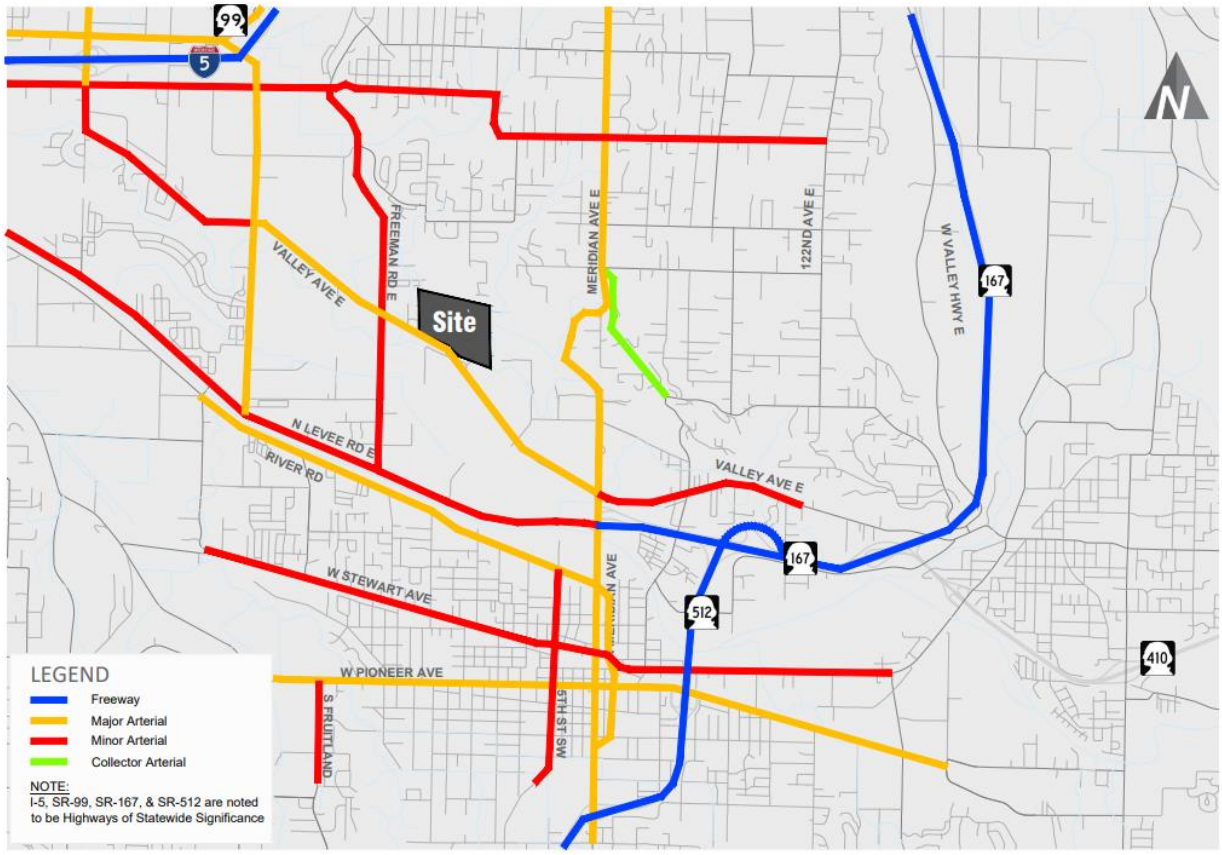
11.2 Affected Environment

The affected environment encompasses the entire transportation system within the vicinity of the project site, including systems across multiple jurisdictions (Edgewood, Puyallup, Fife) and regional roadways. The existing transportation system includes the following:

Street System

The project site can and will be accessed through 42nd Street Court East off of Valley Avenue East. The project site is in close proximity to many regional roadways; SR 167, SR 161, SR 512, SR 410, and I-5. Valley Avenue East is a four-lane roadway classified as a major arterial roadway in some locations, including the location adjacent to the project site (***Figure 11.2***), and connects SR 161 and SR 167 to I-5 and the Port of Tacoma, allowing for east to west connectivity within the vicinity of the project site.

Figure 11.2: Road Classifications



Transit Service

Transit service in the study area is provided by Pierce Transit and Sound Transit; however, the nearest bus stops are approximately 1.3 miles from the project site, both served by Pierce Transit. One (1) bus stop is located at the intersection of 70th Avenue East and Valley Avenue East in Fife, served by Route 501 – Milton to Federal Way, and the other bus stop is located at the intersection of Valley Avenue Northwest and North Meridian Avenue in Puyallup, served by Route 402 – Meridian. The Sound Transit "S" Line (Sounder) at the Puyallup Station is located approximately 2.5 miles from the site and runs from Seattle to Lakewood/Tacoma.

Non-Motorized Transportation

Valley Avenue East includes paved shoulders for 1,500 feet in either direction of the proposed site access, where sidewalks start along both sides of the street. Other arterial streets within the vicinity of the project site, beyond those 1,500 feet, have sidewalks on one (1) or both sides. A majority of the intersections that were studied included marked crosswalks, except for the intersection of 82nd Avenue East and North Levee Road East, the I-5 Ramps on 54th Avenue East, and the intersection of Valley Avenue East and 7th Street Northwest. There is no bicycle infrastructure provided within the immediate vicinity of the project site, with the closest bike lane located approximately two (2) miles northwest of the project site along Pacific Avenue between 54th Avenue and Wapato Way East.

Subsequent to this submittal; the Parks, Recreation, Open Space, and Trails Element of the 2024 Edgewood Comprehensive Plan depicts different non-motorized trails within the vicinity of the project site than were in place at the time of submittal. The previous Comprehensive Plan which the project was vested to no longer reflects the City's current preferred trail alignment.

Traffic Volumes

Traffic volumes were collected in October 2023 at the study intersections during the weekday AM peak period (7:00 a.m. to 9:00 a.m.) and PM peak period (4:00 p.m. to 6:00 p.m.). The total number of entering vehicles at each intersection during the AM and PM peak hours are summarized in ***Table 11.1***.

Table 11.1: Existing Total Entering Vehicles at the Study Intersections

Intersection	Traffic Control	Total Entering Vehicles	
		AM Peak Hour	PM Peak Hour
1. 54th Avenue East/Pacific Highway East (SR 99)	Signal	2,600	3,475
2. 54th Avenue East/I-5 Southbound Ramps	Signal	2,355	2,890
3. 54th Avenue East/I-5 North Ramps	TWSC	2,340	2,965
4. 54th Avenue East/20th Street East	Signal	2,390	3,110
5. Wapato Way East/Pacific Highway East (SR 99)	RAB	2,155	3,095
6. 70th Avenue East/20th Street East	Signal	2,060	2,640
7. Freeman Road East/20th Street East	Signal	1,175	1,590
8. Meridian Avenue East (SR 161)/36th Street East	Signal	1,385	1,620
9. 70th Avenue East/Valley Avenue East	Signal	2,030	2,555
10. Freeman Road East/Valley Avenue East	Signal	1,380	1,880
11. Site Access1	NA	NA	NA
12. 27th Avenue Court Northwest/Valley Avenue Northwest	Signal	1,185	1,650
13. 7th Street Northwest/Valley Avenue Northwest	TWSC	1,170	1,670
14. Meridian Avenue North (SR 161)/Valley Avenue Northwest	Signal	2,785	3,195
15. Meridian Avenue North (SR 161)/SR 167 SB Off-Ramp	Signal	2,295	2,530
16. Meridian Avenue North (SR 161)/SR 167 Ramps	Signal	3,330	4,025
17. Meridian Avenue North (SR 161)/North Levee Road East	TWSC	3,105	3,530
18. Meridian Avenue North (SR 161)/River Road/2nd Street Northeast	Signal	3,165	3,785
19. Meridian Avenue North (SR 161)/West Stewart Avenue	Signal	945	1,635
20. Meridian Avenue North (SR 161)/West Pioneer Road	Signal	1,160	1,850
21. Meridian Avenue North (SR 161)/WB 512 Ramps	Signal	2,020	2,560
22. Meridian Avenue North (SR 161)/EB 512 Ramps	Signal	2,430	2,835
23. Freeman Road East/North Levee Road East	TWSC	780	960
24. South Fruitland/West Pioneer Road	Signal	1,495	2,015
25. 5th Street Southwest/West Pioneer Road	Signal	1,370	1,865

Note: TWSC = Two-Way Stop Controlled, RAB = roundabout. SB =southbound, EB = eastbound, WB = westbound.
[1] Site access (study intersection 11) not evaluated under existing conditions.

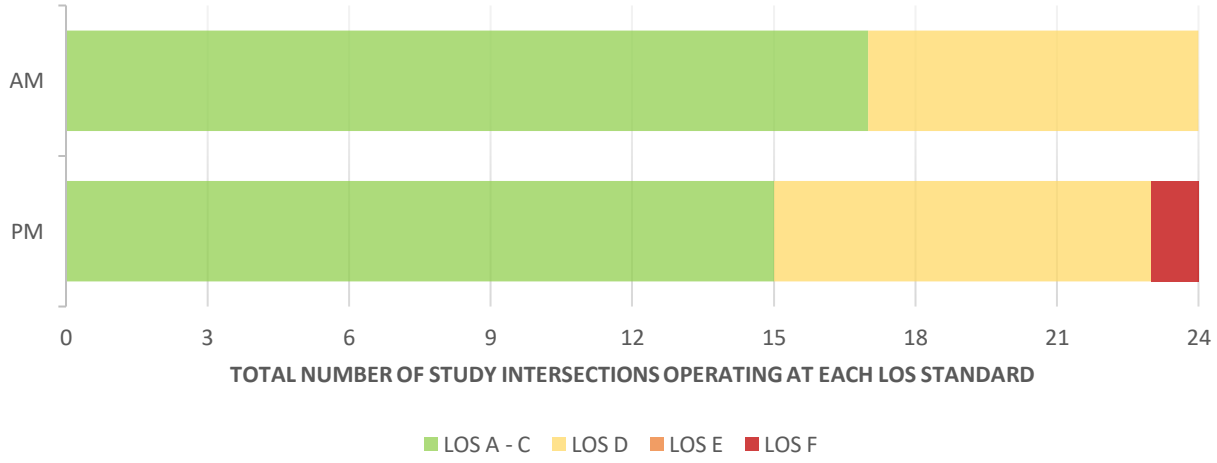
Traffic Operations

Traffic operations were evaluated at all study intersections using methodologies from the Highway Capacity Manual (7th Edition). Additionally, a micro-simulation analysis was completed at a subset of the study intersections along Meridian Avenue East to provide a more detailed evaluation that considered interactions between intersections along the corridor which is discussed in greater detail below.

Intersection Analysis

The current LOS standard is LOS D at all study intersections except for the study intersections of 36th Street East, Valley Avenue Northwest, and River Road (SR 167)/2nd Street Northeast along Meridian Avenue East which have a LOS E standard. ***Figure 11.3*** depicts the total number of intersections operating at each LOS standard during the AM and PM peak hour (excluding the site access intersection (11)).

Figure 11.3: Existing Conditions LOS Summary



As shown in ***Figure 11.3***, all study intersections are shown to operate at acceptable LOS standards during the weekday AM peak hour. During the weekday PM peak hour, all except one (1) intersection are shown to operate at acceptable LOS standards during the weekday PM peak hour. The intersection operating at LOS F during the weekday PM peak hour is Meridian Avenue North (SR 161)/North Levee Road East (intersection 17 per ***Table 11.1***). This intersection has an eastbound right turn movement operating at LOS F during the weekday PM peak hour due to the high volume of southbound traffic along Meridian Avenue North, limiting the right turn movement.

Simulation Analysis

In addition to the intersection analysis completed, a microsimulation analysis was conducted during the PM peak hour for a subset of eight (8) of the study intersections allowing for a more granular examination of the LOS and vehicle queues at these locations given the intersections being closely spaced and highly congested. The traffic volumes used for the analysis were consistent with those used in the intersection evaluation.

An extensive calibration exercise was undertaken for the existing conditions base year microsimulation model in accordance with the latest Washington Statement Department of Transportation (WSDOT) Protocol for VISSIM Simulation (WSDOT Protocol). Below is a summary of the existing observed average travel times at each studied segment. All segments passed the WSDOT criteria, meaning they all fell

within the defined acceptable variation in travel time per the WSDOT protocol. This was determined by the observed travel time in comparison to the length of the segment and posted speed limits.

Travel times were collected for the PM Peak Hour conditions for typical Tuesday, Wednesday, and Thursday conditions and averaged to determine the average PM peak hour travel times at the seven (7) travel segments shown in ***Table 11.2***. All studied segments had average speeds much lower than the posted speed limit, indicating moderate delays across all study areas.

Table 11.2: Existing PM Peak Hour Simulation Travel Time Results

Travel Time Segment	From	To	Posted Speed Limit (mph)	Travel Distance (ft)	Observed Average Travel Time (minutes)	Equivalent Average Travel Speed (mph)
WB SR 167 (RT)	SR167	Meridian Signal (RT)	45*	3,632	1.5	28.5
WB SR 167 (LT)	SR167	Meridian Signal (LT)	45*	3,645	1.7	24.6
SB Meridian Avenue North	Meridian Avenue North and Valley Avenue East	Meridian Avenue North and River Road/2nd Street Northeast	30	2,772	1.8	17.1
NB Meridian Avenue North	Meridian Avenue North and River Road/2nd Street Northeast	Meridian Avenue North and Valley Avenue East	30	2,766	2.4	13.0
SB Meridian Avenue North	Meridian Avenue North and River Road/2nd Street Northeast	Meridian Avenue North and West Pioneer Avenue	25	3,025	2.9	11.7
WB West Pioneer Avenue	Meridian Avenue North and West Pioneer Avenue	West Pioneer Avenue and 5th Street	25	1,316	1.1	13.4
EB West Pioneer Avenue	West Pioneer Avenue and 5th Street	Meridian Avenue North and West Pioneer Avenue	25	1,316	1.1	14.1

*Estimated average free flow SR-167 ramp speed for defined segment
Note: WB = westbound, SB = southbound, NB = northbound, EB = eastbound LT = left turn, RT = right turn

Traffic Safety

Recent collision records were reviewed within the study area to identify existing traffic safety issues at the study intersections. The most recent five-year summary of accident data from the WSDOT is for the period between January 1, 2018, and December 31, 2022.

The review showed that the study intersections had an average of eight (8) or fewer reported collisions per year with the exception of five (5) intersections (54th Avenue East/Pacific Highway E (SR 99), 54th Avenue East/I-5 Northbound Ramps, Wapato Way East/Pacific Highway East (SR 99), Meridian Avenue North (SR 161)/Valley Avenue Northwest, and Meridian Avenue North (SR 161)/River Road (SR 167)/2nd Street Northeast) which are discussed in greater detail below. At the remaining study intersections, the majority of collisions (70 percent) resulted in property damage only, with the remaining approximately 30 percent resulting in potential injury. No fatalities were identified at the remaining study intersections. The most common collision type was rear-end collisions (34 percent), followed by angle collisions (27 percent) and sideswipe collisions (16 percent). There were eleven (11) total collisions involving a pedestrian or bicyclist reported during the five-year review period at the remaining study intersections. These all occurred at study intersections within the City of Puyallup along Meridian Avenue, Levee Road, and Pioneer Way.

Details regarding the collision history at the five (5) intersections with the highest number of collisions (54th Avenue East/Pacific Highway E (SR 99)), 54th Avenue East/I-5 Northbound Ramps, Wapato Way East/Pacific Highway East (SR 99), Meridian Avenue North (SR 161)/Valley Avenue Northwest, and Meridian Avenue North ((SR 161)/River Road (SR 167)/2nd Street Northeast) are shown in ***Table 11.3***.

Table 11.3: Detailed Collision Review with Study Intersections Exceeding an Average of 10 Collisions per Year

Study Intersection	Severity			Collision Type					
	PDO	Injury	Fatality	Approach Turn	Rear End	Pedestrian /Bicyclist	Angle	Sideswipe	Other
54th Avenue East/Pacific Highway East (SR 99)	43	19	0	9	17	1	15	14	6
54th Avenue East/I-5 NB Ramps	63	19	0	11	48	0	10	9	4
Wapato Way East/Pacific Highway East (SR 99)	52	6	0	2	4	0	24	22	5
Meridian Avenue North (SR 161)/Valley Avenue Northwest	75	7	0	5	28	0	13	29	7
Meridian Avenue North (SR 161)/River Road (SR 167)/2nd Street Northeast	46	9	2	2	28	1	12	6	8

Note: PDO = property damage only

Although 54th Avenue East/Pacific Highway East (SR 99), 54th Avenue East/I-5 Northbound Ramps, Wapato Way East/Pacific Highway East (SR 99), and Meridian Avenue North (SR 161)/Valley Avenue Northwest had higher average collision rates than other intersections, none of these intersections were determined to indicate a safety issue due to the type and severity of reported collisions.

Reported collisions at the Meridian Avenue North (SR 161)/River Road (SR 167)/2nd Street Northeast intersection during the five-year period indicated two (2) fatalities and one (1) collision involving a bicyclist. It is anticipated that this intersection will be affected by the planned SR 167 Stage 2 project including reductions in traffic volumes with shifts in travel patterns to use the new SR 167 extension as well as the assumed interchange revision located in close proximity to the intersection.

Pavement Analysis

A Pavement Analysis was prepared by HWA GeoSciences, Inc., dated March 26, 2024 (Appendix AA) to investigate existing pavement conditions and structural capacity, at the request of the City of Puyallup to help them determine the potential impacts of increased truck traffic. The analysis concluded that existing pavement distresses along Valley Avenue Northwest, between SR 161 and 7th Street Northwest, typically consist of low to medium severity longitudinal cracking with occasional areas of medium to high severity alligator cracking, typically in the outside lanes. Existing pavement distresses west of 7th Street Southwest to the east end of the railroad bridge, indicate pavement failure and therefore the need for reconstruction is likely. West of the railroad bridge, the distresses become slightly less frequent and severe; however, there are areas that exhibit severe alligator cracking that require full depth reconstruction. The pavement analysis included Falling Weight Deflectometer (FWD) testing at approximately 100-foot spacings. The results of the FWD testing are provided in Appendix AA.

11.3 Environmental Impacts

This section summarizes the results of the No Action Alternative and Action Alternatives (Alternatives 1 and 2) analysis. The impacts associated with each Action Alternative were determined by comparing the Action Alternatives to the No Action Alternative conditions for each horizon year, 2026, before the SR 167 completion, and 2030, following completion of the SR 167 expansion.

11.3.1 No Action Alternative

Under the No Action Alternative, no development of the site would occur and the existing site would remain vacant.

Street System

The planned improvements as summarized in *Table 11.4* were identified in the City of Fife, WSDOT, and Pierce County Traffic Improvement Plan's (TIP). These projects are located within the study area and are funded and planned to be completed by the 2026 and/or 2030 analysis horizon years; therefore, were included in the respective analyses. Additional projects identified in City of Fife, City of Edgewood, and Pierce County that are not yet funded and/or do not indicate timing of construction, were assumed to not be completed for purposes of the analysis. Note that the City of Puyallup 2023-2028 TIP was also reviewed, but no capacity related projects were identified in the study area.

Table 11.4: Planned Improvement Summary (funded)

Project	Source	Description	Anticipated Year of Completion	Funded?	Assumed in Analysis?	
					2026	2030
SR 167 Extension (Port of Tacoma Spur) – SR 509 to I-5 (*SR 167 Stage 1*)	City of Fife 2022-2027 TIP	Extension of SR 167 from SR 509 to I-5. The new roadway will have four (4) lanes between I-5 and 54th Avenue East and will include a new interchange at 54th Avenue East. Project is a stage of the SR 167/Puget Sound Gateway Corridor.	2025	Yes	No	Yes
SR 167 Completion Project *(SR 167 Stage 2)*	WSDOT Construction and Planning and City of Fife 2021-2026 TIP	Construction of a new four (4) lane alignment on SR 167 between I-5 in Tacoma and SR 161 in Puyallup including new interchanges at SR 161 and Valley Avenue, construct wetland mitigation in the Wapato Creek Watershed, and construct a missing link in the regional trail system from Puyallup to Fife. This is a multi-year project and the programming reflects the funds available within the span of the regional TIP.	2029	Yes	No	Yes
Canyon Road East	Pierce County 2025-2030 TIP	Widen and reconstruct roadway to provide additional lane(s) between 99 Street Court East to 900 feet north of 84 Street East and 400 feet north of 84 Street East to 72 Street East.	2024	Yes	Yes	Yes

The identified SR 167 Stage 2 planned improvement project is assumed to construct a signalized Diverging Diamond Interchange (DDI). This is the design as currently identified through coordination with WSDOT; however, the design of the interchange is still under review and the final design may be different than assumed in the evaluation.

Non-Motorized Transportation

The following non-motorized TIPs were identified within the study area within the surrounding jurisdictions TIPs as well as the Puyallup Active Transportation Plan.

- Addition of bike lanes on West Stewart Avenue between 23rd Avenue Northwest and 7th Avenue. Protected bike lanes were added west of 7th Street Northwest and sharrows (bicycle/automobile sharing arrow pavement markings) were added east of 7th Street Northwest. This project was completed in 2024.
- 5th Street Southwest/Northwest – Active Transportation Plan (Project 1) proposes the addition of a protected bike lane on the west side of 5th Street and a buffered bike lane on the east side

of 5th Street between 7th Avenue and Stewart Avenue. This project is anticipated to be completed by 2027.

- 5th Street Southwest/Northwest to 4th Street Northwest – City of Puyallup Active Transportation Plan (Project 2a) would convert 5th Avenue Southwest and 4th Avenue Southeast into bike boulevards (automobile roadways with enhanced improvements facilitating safe and convenient bicycle usage) using signage, pavement markings and traffic calming measures. This project is anticipated to be completed by 2025.
- 7th Avenue Southwest/Southeast – City of Puyallup Active Transportation Plan (Project 2b) would add a parking protected bike lane (a bike lane between the sidewalk and a row of parallel vehicle street parking) and buffered bike lane west of Meridian Avenue. Additionally, this project would also add two (2) five-foot bike lanes east of Meridian Avenue. This project is anticipated to be completed by 2026.

Transit Service

Existing transit service in the vicinity of the project site is provided by Pierce Transit with more regional transit provided by Sound Transit. Based on a review of planning documents for these transit operators, no local changes were identified; however, multiple changes to regional transit were identified including extension of the Sound Transit Link Light Rail to Federal Way by 2026, and a new 350-space Park-and-Ride and bus turnaround facility along the Meridian Avenue East Corridor (SR 161), approximately five (5) miles south of the project site.

Traffic Volumes

Future traffic volume forecasts were completed for both horizon years (2026 and 2030) for the No Action Alternative.

- The 2026 traffic volume forecasts were developed for the No Action Alternative by applying a compound annual growth rate of three (3) percent to the existing weekday AM and PM peak hour traffic volumes and including traffic from the nearby planned Vector development as identified by the City of Fife. This condition does not assume the SR 167 extension Stage 2 project.
- The 2030 traffic volumes were developed assuming an annual growth rate of two (2) percent[12] and pipeline volume for the Vector development. Shifts in travel patterns throughout the study area were then applied to account for the SR 167 extension Stage 2. Note that the SR 167 extension Stage 2 project will alleviate pressure from the local roadways in the vicinity by providing an alternative direct connection.

The resulting 2026 No Action Alternative weekday AM and PM peak hour traffic volumes at the study intersections are shown in ***Table 11.5***.

[12] The regional model was reviewed to confirm the annual growth rate to apply for the 2030 horizon year, which showed a reduced rate of less than two (2) percent as compared to the three (3) percent assumed for the 2026 horizon year, such that the annual growth rate was assumed to be two (2) percent for purposes of the 2030 forecasts.

Table 11.5: No Action Alternative Total Entering Vehicles at the Study Intersections

Intersection[1]	Total Entering Vehicles			
	AM Peak Hour		PM Peak Hour	
	2026	2030	2026	2030
1. 54th Avenue East/Pacific Highway East (SR 99)	2,850	2,900	3,800	3,715
2. 54th Avenue East/I-5 SB Ramps	2,580	2,590	3,165	3,150
3. 54th Avenue East/I-5 NB Ramps	2,565	2,470	3,255	3,300
4. 54th Avenue East/20th Street East	2,610	2,530	3,410	3,430
5. Wapato Way East/Pacific Highway East (SR 99)	2,360	2,495	3,385	3,140
6. 70th Avenue East/20th Street East	2,260	2,235	2,880	2,875
7. Freeman Road East/20th Street East	1,275	1,365	1,740	1,735
8. Meridian Avenue East (SR 161)/36th Street East	1,505	1,515	1,770	1,630
9. 70th Avenue East/Valley Avenue East	2,230	2,150	2,805	2,370
10. Freeman Road East/Valley Avenue East	1,515	1,415	2,070	1,730
12. 27th Avenue Court Northwest/Valley Avenue Northwest	1,290	1,240	1,795	1,585
13. 7th Street Northwest/Valley Avenue Northwest	1,275	1,220	1,825	1,520
14. Meridian Avenue North (SR 161)/Valley Avenue Northwest	3,040	2,980	3,495	3,070
15. Meridian Avenue North (SR 161)/SR 167 SB Off-Ramp	2,510	3,545	2,765	3,250
16. Meridian Avenue North (SR 161)/SR 167 Ramps	3,650	3,835	4,400	4,520
17. Meridian Avenue North (SR 161)/North Levee Road East	3,405	2,925	3,870	3,350
18. Meridian Avenue North (SR 161)/River Road/2nd Street Northeast	3,465	3,630	4,140	3,950
19. Meridian Avenue North (SR 161)/West Stewart Avenue	1,040	1,040	1,785	1,725
20. Meridian Avenue North (SR 161)/West Pioneer Road	1,265	1,325	2,025	2,105
21. Meridian Avenue North (SR 161)/WB 512 Ramps	2,210	2,330	2,805	2,880
22. Meridian Avenue North (SR 161)/EB 512 Ramps	2,660	2,830	3,095	3,230
23. Freeman Road East/North Levee Road East	870	645	1,065	515
24. South Fruitland/West Pioneer Road	1,635	1,625	2,205	2,190
25. 5th Street Southwest/West Pioneer Road	1,500	1,545	2,025	2,150

Note: SB = southbound, NB = northbound, WB = westbound, ED = eastbound

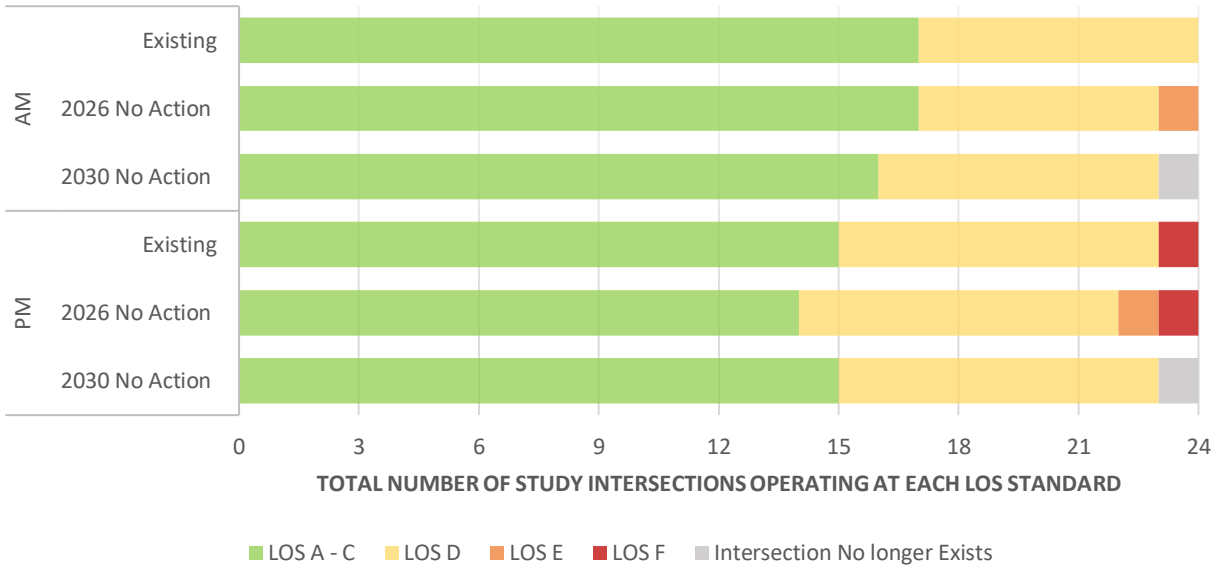
[1] Site access (study intersection 11) not evaluated under existing conditions.

Traffic Operations
The traffic operations at the study intersections based on the simulation analysis are summarized below.

Intersection Analysis
The forecasted LOS for the No Action Alternative is summarized in ***Figure 11.4*** for the study intersections (excluding the site access intersection 11) during the weekday AM and PM peak hours for both the 2026 and 2030 conditions. A comparison of the No Action Alternative operations to the existing conditions is also included in the figure.

Under the 2030 conditions, which include the SR 162 Stage 2 improvements, the Meridian Avenue North (SR 161)/North Levee Road East unsignalized intersection is assumed to be incorporated into the adjacent intersection and no longer exists.

Figure 11.4: No Action Alternative LOS Summary



As shown in ***Figure 11.4***, the study intersections during the AM peak hour currently operate at and are forecasted to continue operating at an acceptable LOS under both existing and future No Action conditions with the exception of one (1) intersection. The Meridian Avenue North (SR 161)/SR 167 Ramps (study intersection 16 per ***Table 11.1***) intersection is forecast to degrade to operating at LOS E under 2026 No Action conditions during the AM peak hour from LOS D under existing conditions; however, the intersection is then forecast to improve to operating acceptably at LOS D in 2030 due to the planned SR 167 expansion.

All analyzed intersections during the PM peak hour operated at acceptable levels under both existing and future No Action Alternative conditions with the exception of two (2) intersections. The Meridian Avenue North (SR 161)/North Levee Road East (study intersection 17 per ***Table 11.1***) and Freeman Road East/North Levee Road East (study intersection 23 per ***Table 11.1*** intersections operate below the respective standards under 2026 No Action conditions. With the SR 162 Stage 2 improvements included in the 2030 analyses, the Meridian Avenue North (SR 161)/North Levee Road East intersection is eliminated by being incorporated into the adjacent SR 167 interchange. The Freeman Road East/North Levee Road East intersection is anticipated to improve to operate at an acceptable LOS with the SR 162 Stage 2 improvements under 2030 conditions.

Simulation Analysis

Table 11.6 shows the simulated No Action Alternative PM peak hour segment travel times for both the 2026 and 2030 conditions, as compared to the existing conditions simulations.

Table 11.6: No Action Alternative PM Peak Hour Simulation Travel Time Results

Travel Time Segment	From	To	Posted Speed Limit (mph)	Average Travel Time (minutes)			Equivalent Average Travel Speed (mph)		
				2023	2026	2030	2023	2026	2030
WB SR 167 (RT)	SR167	Meridian Avenue (RT)	45*	1.5	1.5	1.2	28.5	28.2	34.0
WB SR 167 (LT)	SR167	Meridian Avenue (LT)	45*	1.7	1.7	1.6	24.6	24.5	25.7
SB Meridian Avenue North	Valley Avenue	River Road/2nd Street Northeast	30	1.8	2.1	2.4	17.1	14.7	13.0
NB Meridian Avenue North	River Road/2nd Street Northeast	Valley Avenue Northwest	30	2.4	2.5	7.2	13.0	12.5	4.3
SB Meridian Avenue North	River Road/2nd Street Northeast	Pioneer Avenue	25	2.9	2.3	2.5	11.7	14.7	14.0
WB West Pioneer Avenue	Meridian Avenue North	5th Street Southwest	25	1.1	1.3	1.5	13.4	11.5	10.0
EB West Pioneer Avenue	5th Street Southwest	Meridian Avenue South	25	1.1	1.4	1.4	14.1	10.5	10.6

*Estimated average free flow SR-167 ramp speed for defined segment
Note: WB = westbound, SB = southbound, NB = northbound, EB = eastbound, RT= right turn, LT = left turn

The travel time segment results show that most reported segments in 2026 and 2030 see modest travel time increases of less than 30 seconds compared to the existing 2023 simulated travel times. The exception to this is the increase in travel times for northbound Meridian Avenue North between River Road/2nd Street Northeast to Valley Avenue Northwest in the 2030 conditions, where travel times increase by nearly five (5) minutes or a tripling of the 2026 travel times. Changes associated with the planned interchange concept significantly reduce the capacity of the northbound right turn from Meridian Avenue North to the eastbound SR 167 on-ramp as compared to the existing interchange configuration. This reduction in capacity of the northbound right turn movement results in queueing during the PM peak hour which then results in increased travel times for northbound travel on Meridian Avenue North.

Equivalent Single Axle Load

Equivalent single axle load (ESAL) is a measure of the traffic loading experienced by a pavement with an ESAL being equivalent to a load of 18,000 pounds. ESALs were evaluated at four (4) study locations in the vicinity of the project site, two (2) along Valley Avenue and two (2) along Meridian Avenue. A load factor for each vehicle class was applied to the observed volumes to calculate the ESALs for each study location. The estimated ESALs for the No Action Alternative condition are shown in ***Table 11.7***.

Table 11.7: No Action (2026 and 2030) ESALs

Study Location	2026 No Action Alternative		2030 No Action Alternative	
	ADT[1]	ESALs[2]	ADT	ESALs
1. Valley Avenue east of Freeman Road	21,000	12,644,424	18,500	11,139,135
2. Valley Avenue west of 7th Street Northwest	23,600	14,185,720	19,600	11,781,361
3. Meridian Avenue north of Valley Avenue	17,000	3,517,859	16,000	3,310,927
4. Meridian Avenue south of Levee Road	33,300	11,392,438	29,800	10,195,035

1. ADT = average daily traffic
2. ESALs = Equivalent single axle loads

As shown in ***Table 11.7***, the ESALs under the No Action Alternative conditions are forecast to be reduced in the study area when comparing the 2026 and 2030 conditions. This is related to the inclusion of the SR 167 Stage 2 extension project under the 2030 forecasts which shifts traffic away from the local roadways.

11.3.2 Impacts Common to Both Action Alternatives

Street System

The Action Alternatives do not propose any changes to the off-site street network other than the site connection to the railroad frontage. The project would construct approximately 2,500 linear feet of the new railroad frontage public roadway between 86th Avenue East/42nd Street Court East and approximately 93rd Avenue East/44th Street Court East, which would provide an additional access to the project from the east in the future once the railroad frontage public roadway is completed. This connection is not assumed to be completed in the analysis.

Additionally, the project includes access at Valley Avenue East via 42nd Street Court East; however, this connection exists today.

Traffic Volumes

The Action Alternatives trip assignment for the future conditions was added to the respective No Action weekday peak hour traffic volumes. The Action Alternatives generated traffic volumes are anticipated to be approximately 12 percent or less within the study area during both horizon years (2026 and 2030) during the peak hours with the exception of the study intersections along Valley Avenue North from Freeman Road East to Meridian Avenue and at the intersection of Meridian Avenue North/SR 167 SB Off-Ramp. These intersections are nearest to the site access. The Action Alternatives share is estimated to range between nine (9) to 43 percent at these intersections during both the weekday AM and PM peak hours.

Site Access Review

Access to the project site would be provided from Valley Avenue East via 42nd Street Court East.

The site access (42nd Street Court East/Valley Avenue East) was evaluated as it exists today, as a two-way stop controlled (TWSC) intersection. Assuming this existing TWSC traffic control, the southbound approach of the site access intersection is forecast to operate at LOS F under all conditions, during both the weekday AM and PM peak hours under both horizon years (2026 and 2030) for both Action Alternatives.

Additional channelization and traffic control options were reviewed at the site access to improve operations. These included the addition of a two-way left-turn along Valley Avenue or the installation of a traffic signal at the intersection. Both options are discussed below.

Addition of a Two-way Left Turn Lane Along Valley Avenue – The channelization for this option assumes the addition of a two-way left-turn lane along Valley Avenue at 42nd Street Court East. The southbound approach includes separate left and right turn lanes. This option continues to operate at LOS F and was therefore not considered further.

Traffic Signal – This option assumes a traffic signal is installed at the site access intersection.[13] The assumed channelization revisions along Valley Avenue Northwest include the addition of an eastbound left-turn lane. The southbound approach includes a southbound left-turn lane and a shared southbound left/right-turn lane. The traffic signal option results in the site access operating acceptably at LOS C or better under both Action Alternatives during both peak hours and both horizon years.

With the proposed traffic control being a traffic signal, the stopping sight distance (SSD) was evaluated at the site access per the Pierce County Design Manual. Based on coordination with Puyallup staff, the observed 85th percentile speeds in the vicinity of the site access are 49 miles per hour (mph), such that a design speed of 50 mph was assumed for the analysis. The required SSD per a design speed of 50 mph is 425 feet.[14] The review of sight distance at the site access is shown to be unobstructed, meeting the requirement.

Traffic Safety

With the development of any Action Alternative, traffic levels will increase, and traffic safety incidents may also increase at a proportional rate. It should be noted that following the completion of the proposed SR 167 Stage 2 project, travel patterns are anticipated to shift away from the intersections with the highest occurrences of collisions (54th Avenue East/I-5 North Ramps, Meridian Avenue North (SR 161)/Valley Avenue Northwest, and Meridian Avenue North (SR 161)/River Road (SR 167)/2nd Street Northeast). The TDR concluded that no significant traffic safety impacts are anticipated at any of the intersections associated with the development of either of the Action Alternatives.

Construction Traffic

Traffic attributable to construction activities (including both employees and trucks) will be associated with excavation, infrastructure and building construction, and landscaping. The highest amount of construction traffic and daily trips generated will occur at the soil import and export phases of construction. Other construction activities will result in lower daily trips generated as workers will usually arrive and before AM peak hours and depart before PM peak hours. The TDR concluded that no significant construction impacts are anticipated with the proposed improvements to the site access point.

The proposed public roadway access would create a more reliable and resilient point of access to the existing residential properties north and northeast of the project site, with direct access to Valley Avenue East without an at-grade crossing of the Union Pacific Railroad. The current access point, 90th Avenue East, is very narrow, sited within a narrow 16-foot-wide right-of-way, not allowing for safe two-way vehicle use or emergency vehicle access; the proposed project would improve access within the project site area to meet current standards for two-way vehicular travel and emergency vehicle access.

[13] Note a signal warrant analysis was completed at the site access/Valley Avenue intersection and was shown to be met.

[14] The County's Stopping Sight Distance table in Section 3-1 only provides SSD for a design speed up to 45 mph; however, the SSD are consistent with AASHTO's *A Policy on Geometric Design of Highways and Streets* (7th Edition, 2018). AASHTO Table 3-35 identifies a distance of 425' required for a design speed of 50 mph.

11.3.3 Action Alternative 1

Trip Generation

Trip generation for the proposed Action Alternative 1 is based on average rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. The land uses for the existing uses to be removed are based on ITE's Warehouse (LU 150) and Single-Family Home (LU 210) Land Use Codes. The proposed land use for Action Alternative 1 is based on the High-Cube Fulfillment Center Warehouse – Sort (LU 155) Land Use Code. Truck percentages are based on data provided for LU 155. ***Table 11.8*** summarizes the net new weekday daily and AM and PM peak hour trip generation for Action Alternative 1.

Table 11.8: Action Alternative 1 Net New Trip Generation Summary

Land Use	Size	Vehicle Type	Weekday Daily[1]	Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
High-Cube Fulfillment Center Warehouse – Sort (LU 155)[2]	1,065,000 SF	Truck	202	11	10	21	11	10	21
		Non-Truck	6,578	738	162	900	482	766	1,248
		Total	**6,780**	**749**	**172**	**921**	**493**	**776**	**1,269**

[1] Trip generation estimated based on rates provided in ITE's Trip Generation Manual (11th Edition, 2021).
[2] Note that there are limited data points provided for High-Cube Fulfillment Center Warehouse – Sort.

As shown in ***Table 11.8***, Action Alternative 1 results in an estimated 6,780 weekday daily trips, 921 during the AM peak hour and 1,269 during the PM peak hour. The truck volumes associated with the project make up approximately three (3) percent or less of the weekday daily trip counts.

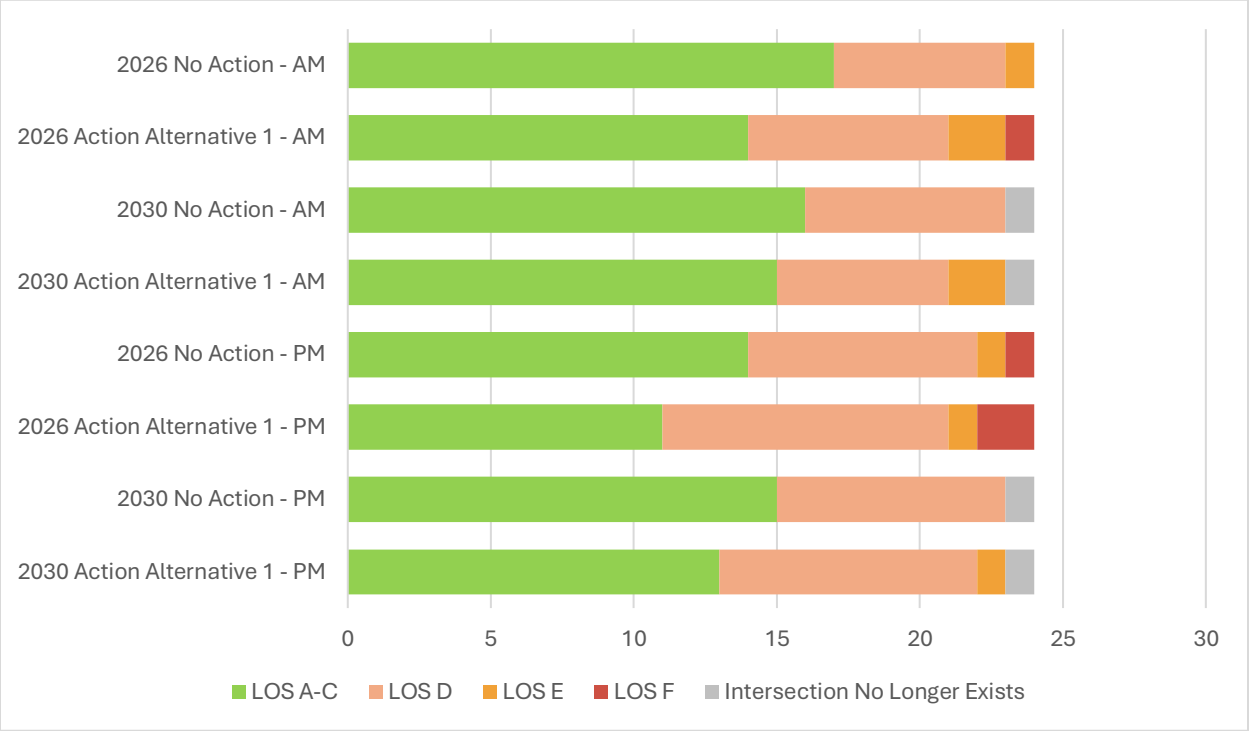
Traffic Operations

The traffic operations based on the intersection analysis as well as the simulation analysis are summarized below. Simulation analysis of the Action Alternatives was limited to Action Alternative 1.

Intersection Analysis

A comparison of the Action Alternative 1 operations to the No Action Alternative conditions is shown in ***Figure 11.5***. Under the 2030 conditions, which include the SR 162 Stage 2 improvements, the Meridian Avenue North (SR 161)/North Levee Road East unsignalized intersection is assumed to be incorporated into the adjacent intersection and no longer exists.

Figure 11.5: 2026 and 2030 Action Alternative 1 LOS Summary



Three (3) intersections operate below standard under Action Alternative 1 conditions during the AM and/or PM peak hours but improve to operating acceptably with SR 167 Stage 2 project. These three (3) locations are described below.

- 7th Street Northwest/Valley Avenue Northwest – The southbound left turn movement of this side street stop-controlled intersection is forecast to degrade to LOS E under 2026 conditions during the weekday AM peak hour. This location operates acceptably with the SR 167 Stage 2 project under 2030 Action Alternative 1 conditions during both the AM and PM peak hours.
- Freeman Road East/North Levee Road East – This side-street stop-controlled intersection operates below standard under the 2026 conditions during the weekday AM and PM peak hours both under No Action Alternative and Action Alternative 1 conditions. This location operates acceptably with the SR 167 Stage 2 project under 2030 Action Alternative 1 conditions during both the AM and PM peak hours.
- Meridian Avenue North (SR 161)/North Levee Road East – This side-street stop-controlled intersection operates below standard under the 2026 conditions during the weekday AM and PM peak hours both under No Action Alternative and Action Alternative 1 conditions. With the planned SR 167 Stage 2 project, this intersection is integrated as part of interchange revision and is eliminated under 2030 conditions.

In addition to the three (3) intersections above, the Meridian Avenue North (SR 161)/River Road (SR 167)/2nd Street Northeast signalized intersection operates acceptably at LOS D or better under 2026 Action Alternative 1 conditions during the weekday PM peak hour. During the weekday AM peak hour it degrades from LOS E to LOS F. With the 2030 interchange improvement planned as part of the SR 167 Stage 2 extension, this intersection is forecast to continue to operate at LOS D or better under both the weekday AM and PM peak hours No Action Alternative and Action Alternative 1 conditions, with the

exception of during the weekday AM peak hour Action Alternative 1 condition, which is forecast to degrade to operating at LOS E. There are 11 seconds of added delay anticipated with Action Alternative 1 relative to the No Action condition during the AM peak hour.

Simulation Analysis

Table 11.9 and ***Table 11.10*** show the simulated Action Alternative 1 PM peak hour segment travel times for both the 2026 and 2030 conditions, respectively, as compared to the No Action Alternative condition simulations.

Table 11.9: 2026 Action Alternative 1 PM Peak Hour Simulation Travel Time Results

Travel Time Segment	From	To	Posted Speed Limit (mph)	Average Travel Time (minutes)			Equivalent Average Travel Speed (mph)		
				No Action	Alt 1	Diff.	No Action	Alt 1	Diff.
WB SR 167 (RT)	SR167	Meridian Avenue (RT)	45*	1.5	1.5	0.1	28.2	27.0	-1.1
WB SR 167 (LT)	SR167	Meridian Avenue (LT)	45*	1.7	1.6	0.0	24.5	25.2	0.6
SB Meridian Avenue North	Valley Avenue	River Road/2nd Street Northeast	30	2.1	2.1	0.0	14.7	14.7	0.0
NB Meridian Avenue North	River Road/2nd Street Northeast	Valley Avenue Northwest	30	2.5	2.6	0.1	12.5	12.1	-0.4
SB Meridian Avenue North	River Road/2nd Street Northeast	West Pioneer Avenue	25	2.3	4.5	2.2	14.7	7.6	-7.1
WB West Pioneer Avenue	Meridian Avenue North	5th Street Southwest	25	1.3	1.6	0.3	11.5	9.2	-2.3
EB West Pioneer Avenue	5th Street Southwest	Meridian Avenue South	25	1.4	1.5	0.1	10.5	9.9	-0.6

*Estimated average free flow SR-167 ramp speed for defined segment

Note: WB = westbound, SB = southbound, NB = northbound, EB = eastbound, RT = right turn, LT = left turn

Table 11.10: 2030 Action Alternative 1 PM Peak Hour Simulation Travel Time Results

Travel Time Segment	From	To	Posted Speed Limit (mph)	Observed Average Travel Time (minutes)			Equivalent Average Travel Speed (mph)		
				No Action	Alt 1	Diff.	No Action	Alt 1	Diff.
WB SR 167 (RT)	SR167	Meridian Avenue (RT)	45*	1.2	1.2	0.0	34.0	33.3	-0.6
WB SR 167 (LT)	SR167	Meridian Avenue (LT)	45*	1.6	1.6	0.0	25.7	25.4	-0.3
SB Meridian Avenue North	Valley Avenue	River Road/2nd Street Northeast	30	2.4	2.7	0.2	13.0	11.8	-1.2
NB Meridian Avenue North	River Road/2nd Street Northeast	Valley Avenue Northwest	30	7.2	7.0	-0.2	4.3	4.5	0.1
SB Meridian Avenue North	River Road/2nd Street Northeast	West Pioneer Avenue	25	2.5	4.0	1.6	14.0	8.5	-5.5
WB West Pioneer Avenue	Meridian Avenue North	5th Street Southwest	25	1.5	2.2	0.7	10.0	6.9	-3.1
EB West Pioneer Avenue	5th Street Southwest	Meridian Avenue South	25	1.4	1.5	0.1	10.6	9.8	-0.8

*Estimated average free flow SR-167 ramp speed for defined segment
Note: WB = westbound, SB = southbound, NB = northbound, EB = eastbound, RT = right turn, LT = left turn

Limited changes can be seen in the travel time segments for both horizon years, with the exception of the southbound Meridian Avenue corridor from the River Road/2nd Street Northeast intersection to the Pioneer Avenue intersection. For this segment, travel times in Action Alternative 1 can be seen to increase by approximately two (2) minutes in the 2026 conditions and 1.5 minutes in the 2030 conditions. While this increase in travel time is notable, the increased travel times are felt across several signalized intersections.

It may appear counter-intuitive that there are limited changes to the travel times reported on Meridian Avenue North in both directions between Valley Avenue Northwest and River Road/2nd Street Northeast, the reasoning is similar to why the increases in delays at the SR 167 intersections are relatively unchanged between the No Action Alternative and Action Alternative 1. As congestion builds on Meridian Avenue, the queues quickly propagate upstream to the nearby intersections and spill onto both Valley Avenue and River Road, which are not included in the defined travel time segments and the travel times only on Meridian Avenue are mostly unchanged.

ESALs

ESALs for the Action Alternative 1 condition were evaluated at four (4) study locations consistent with the methodology as described above for the No Action Alternative condition. The estimated ESALs for the Action Alternative 1 condition are shown in ***Table 11.11*** and are compared to No Action conditions.

Table 11.11: Action Alternative 1 (2026 and 2030) ESALs

Study Location	No Action (NA)		Action Alternative 1(AA1)		Difference *(AA1 – NA)*	
	ADT[1]	ESALs[2]	ADT	ESALs	ADT	ESALs
2026 Horizon Year						
1. Valley Avenue east of Freeman Road	21,000	12,644,424	24,100	14,510,982	3,100	1,866,558
2. Valley Avenue west of 7th Street	23,600	14,185,720	36,900	22,180,215	13,300	7,994,495
3. Meridian Avenue north of Valley Avenue	17,000	3,517,859	19,000	3,931,725	2,000	413,866
4. Meridian Avenue south of Levee Road	33,300	11,392,438	40,500	13,855,668	7,200	2,463,230
2030 Horizon Year						
1. Valley Avenue east of Freeman Road	18,500	11,139,135	22,000	13,246,539	3,500	2,107,404
2. Valley Avenue west of 7th Street	19,600	11,781,361	32,400	19,475,311	12,800	7,693,950
3. Meridian Avenue north of Valley Avenue	16,000	3,310,927	17,900	3,704,099	1,900	393,172
4. Meridian Avenue south of Levee Road	29,800	10,195,035	37,100	12,692,476	7,300	2,497,441

[1] ADT = average daily traffic

[2] ESALs = Equivalent Single Axle Loads

11.3.4 Action Alternative 2

Trip Generation

Trip generation for the proposed Action Alternative 2 is based on average rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. The land uses for the existing uses to be removed are based on ITE's Warehouse (LU 150) and Single Family Home (LU 210) Land Use Codes. The proposed land use for Action Alternative 2 is based on the High-Cube Fulfillment Center Warehouse – Sort (LU 155) Land Use Code. Truck percentages are based on data provided for LU 155. ***Table 11.12*** summarizes the net new weekday daily and AM and PM peak hour trip generation for Action Alternative 2.

Table 11.12: Action Alternative 2 Net New Trip Generation Summary

Land Use	Size	Vehicle Type	Weekday Daily[1]	Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
High-Cube Fulfillment Center Warehouse – Sort (LU 155)[2]	965,000 SF	Truck	183	10	9	19	10	9	19
		Non-Truck	5,947	668	147	815	437	693	1,130
		Total	**6,130**	**678**	**156**	**834**	**447**	**702**	**1,149**

Source: Transpo Group, 2024.

[1] Trip generation estimated based on rates provided in ITE's Trip Generation Manual (11th Edition, 2021).

[2] Note that there are limited data points provided for High-Cube Fulfillment Center Warehouse – Sort.

Action Alternative 2 is estimated to generate 6,130 weekday net new daily trips with 834 trips occurring during the weekday AM peak hour and 1,149 trips occurring during the weekday PM peak hour. Note that Action Alternative 2 is slightly less than Action Alternative 1 as this reflects a slight reduction in development size.

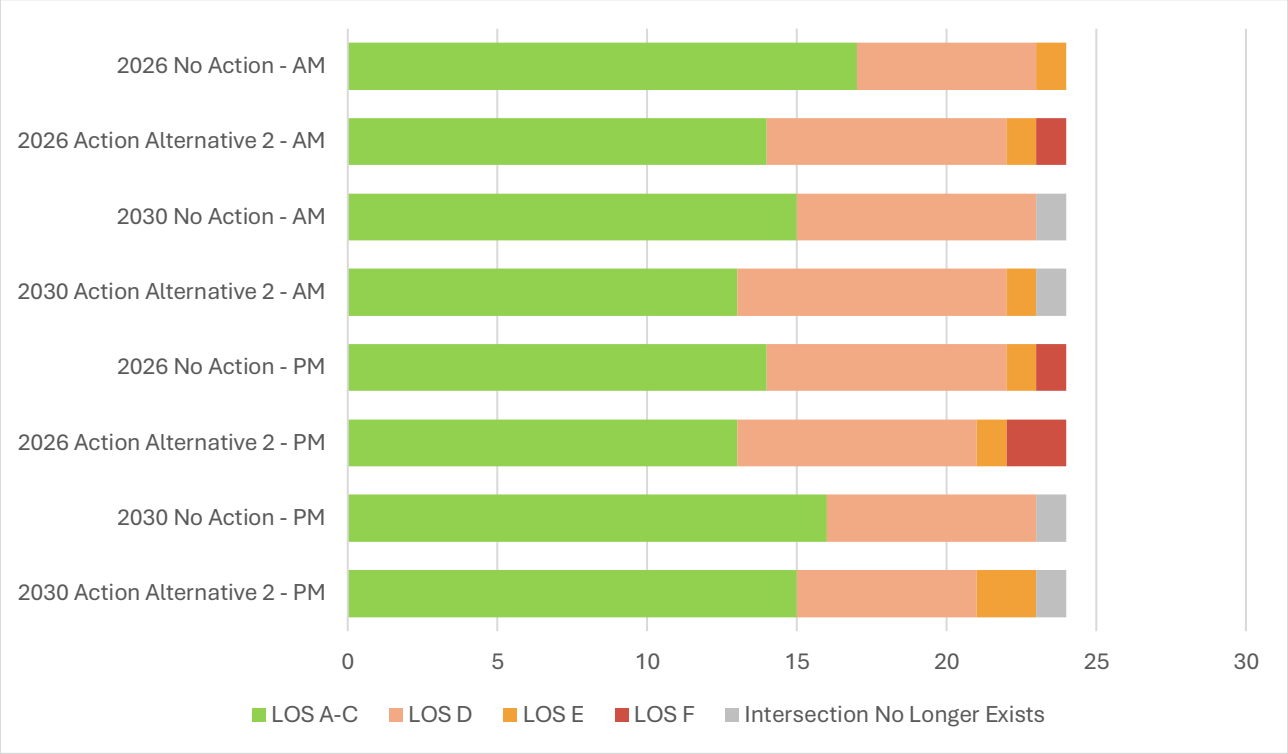
Traffic Operations

The traffic operations based on the intersection analysis are summarized below. Note that the simulation analysis of the Action Alternatives was limited to Action Alternative 1.

Intersection Analysis

A comparison of the Action Alternative 2 operations to the No Action conditions is provided in ***Figure 11.6***. As noted for the No Action Alternative and Action Alternative 1, under the 2030 conditions, which include the SR 162 Stage 2 improvements, the Meridian Avenue North (SR 161)/North Levee Road East unsignalized intersection is assumed to be incorporated into the adjacent intersection and no longer exists as illustrated in the figure.

Figure 11.6: 2026 and 2030 Action Alternative 2 LOS Summary



As shown in ***Figure 11.6***, there are three (3) study intersections forecast to operate below standard during the AM and PM peak hours with the development of Action Alternative 2.

Two (2) intersections operate below standard under Action Alternative 2 conditions during the AM and PM peak hours but improve to operating acceptably (LOS D) with SR 167 Stage 2 project. These two (2) locations are described below.

- Freeman Road East/North Levee Road East – This side-street stop-controlled intersection operates below standard under the 2026 conditions during the weekday AM and PM peak hours both under the No Action Alternative and Action Alternative 2 conditions. This location operates

acceptably with the SR 167 Stage 2 project under 2030 Action Alternative 2 conditions during both the AM and PM peak hours.

- Meridian Avenue North (SR 161)/North Levee Road East – This side-street stop-controlled intersection operates below standard under the 2026 conditions during the weekday AM and PM peak hours both under the No Action Alternative and Action Alternative 2 conditions. With the planned SR 167 Stage 2 project, this intersection is integrated as part of interchange revision and is eliminated under 2030 conditions.

In addition to the two (2) intersections above, the Meridian Avenue North (SR 161)/SR 167 Ramps signalized intersection operates acceptably at LOS D or better under 2026 Alternative 2 conditions during the weekday PM peak hour. During the weekday AM peak hour this intersection degrades from LOS E to LOS F. With the 2030 interchange improvement planned as part of the SR 167 Stage 2 extension, this intersection is forecast to continue to operate at LOS D or better under both the weekday AM and PM peak hours for the No Action Alternative conditions and the weekday PM peak hours for the Action Alternative 2 conditions. The weekday AM peak hour Action Alternative 2 condition is forecast to degrade to LOS E, with an added delay of 10 seconds relative to the No Action Alternative condition during the AM peak hour.

ESALs

ESALs for the Action Alternative 2 condition were evaluated at four (4) study locations consistent with the methodology as described in Section 11.3.1 for the No Action condition. The estimated ESALs for the Action Alternative 2 condition are shown in ***Table 11.13*** and are compared to the No Action Alternative conditions.

Table 11.13: Action Alternative 2 (2026 and 2030) ESALs

Study Location	No Action (NA)		Action Alternative 2 (AA2)		Difference *(AA2 – NA)*	
	ADT[1]	ESALs[2]	ADT	ESALs	ADT	ESALs
2026 Horizon Year						
1. Valley Avenue east of Freeman Road	21,000	12,644,424	23,800	14,330,347	2,800	1,685,923
2. Valley Avenue west of 7th Street	23,600	14,185,720	35,700	21,458,907	12,100	7,273,187
3. Meridian Avenue north of Valley Avenue	17,000	3,517,859	18,800	3,890,339	1,800	372,480
4. Meridian Avenue south of Levee Road	33,300	11,392,438	39,800	13,616,188	6,500	2,223,750
2030 Horizon Year						
1. Valley Avenue east of Freeman Road	18,500	11,139,135	21,600	13,005,693	3,100	1,866,558
2. Valley Avenue west of 7th Street	19,600	11,781,361	31,300	18,814,112	11,700	7,032,751
3. Meridian Avenue north of Valley Avenue	16,000	3,310,927	17,800	3,683,406	1,800	372,479
4. Meridian Avenue south of Levee Road	29,800	10,195,035	36,400	12,452,996	6,600	2,257,961

[1] ADT = Average daily traffic

[2] ESALs = Equivalent Single Axle Loads

11.4 Mitigation Measures

11.4.1 Common to Both Action Alternatives

The TDR identified four (4) intersections that were projected to operate below acceptable LOS levels under both Action Alternatives, including the site access. Two (2) of these study intersections Meridian Avenue North (SR 161)/North Levee Road East and Freeman Road East/North Levee Road East are forecast to operate below standard in the 2026 conditions, then improving to meeting standards upon completion of the SR 167 Stage 2 improvements project. Note the SR 167 Stage 2 design was analyzed as currently identified through coordination with WSDOT; however, the design of the interchange is still under review and the final design may be different than assumed in the evaluation. The following mitigation measures are proposed assuming the SR 167 Stage 2 design is complete by 2030.

1. **Meridian Avenue North (SR 161)/SR 167 Ramps** – This intersection is projected to operate below standard in 2026 and 2030 during the AM peak hour with implementation of either of the Action Alternatives. Therefore, the project will be limited to development which generates no more than 553 AM peak hour trips.

    a. Note that if the development is an industrial park (as defined in the ITE Trip Generation Manual LUC 130), then it is expected to generate fewer than 553 AM peak hour trips and would be compliant with this condition.

    b. High cube fulfillment center warehouse or a combination of industrial park and high cube fulfillment center warehouse would require the review and approval of a trip generation memorandum demonstrating that the proposal and previous phases do not generate more than 553 AM peak hour trips.

2. **42nd Street Court East/Valley Avenue East (site access)** – The site access intersection is projected to operate below acceptable LOS for both Action Alternatives for both the AM and PM peak hours. The proposed mitigation is to add a traffic signal which would include a southbound left turn lane and a shared left/right turn lane, improving operations to LOS C or better under both Action Alternatives.

3. **Freeman Road East/Levee Road North** – This intersection is projected to operate below standard without the project for the PM peak hour. The intersection operates acceptably at LOS B in 2030 for the PM peak hour and at LOS C for the AM peak hour. Proposed mitigation is the addition of an all-way stop at this location, which would allow the intersection to operate acceptably at LOS D under both Action Alternatives.

4. **Meridian Avenue North/North Levee Road East** – This intersection is currently operating below standard for the PM peak hour. Development of either of the Action Alternatives will further add delay. No mitigation is proposed; however, this intersection is eliminated by being incorporated into the adjacent SR 167 interchange in the 2030 conditions.

11.4.2 Action Alternative 1

In addition to the four (4) intersections identified above, 7th Street Northwest/Valley Avenue Northwest is forecast to operate below standard in the 2026 and 2030 conditions for the AM peak hour under Action Alternative 1. The following mitigation measure is proposed, assuming the SR 167 Stage 2 design is complete by 2030.

1. **7th Street Northwest/Valley Avenue Northwest** – This intersection is projected to operate below acceptable LOS for Action Alternative 1 for the AM peak hour. The intersection operates acceptably at LOS D in 2030 for the AM peak hour and at LOS C for the PM peak hour. In 2026, with the limitation on trip generation (no more than 553 AM peak hour trips), this intersection will operate at LOS D in the AM peak hour.

11.5 Significant Impact Determination

This environmental review has determined that any adverse impacts to transportation that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures described above, including capacity limits, the addition of traffic signals, and the addition of an all-way stop at the respective intersections.

12. Public Services and Utilities

This chapter describes how implementation of either of the Action Alternatives could affect public services and utilities in the vicinity of the project site, compared to the No Action Alternative.

12.1 Affected Environment

The affected environment is the area serviced by the public services and utility providers that serve the project site.

12.1.1 Public Services

For the purposes of this DEIS, public service providers include school districts, police departments, and fire districts. As shown in ***Figure 12.1***, there are no existing schools, police stations, or fire stations within a one-mile radius of the project site (including in the City of Edgewood, City of Fife, and the City of Puyallup).

Police Services

The project site is served by the Edgewood Police Department. The Edgewood Police Department is located approximately 1.5 miles northeast of the project site (3.8 miles travel distance). The parcels immediately south of the project site (within the City of Puyallup) are served by the Puyallup Police Department. The Puyallup Police Department is located approximately 2.1 miles southeast of the project site (2.7 miles travel distance).

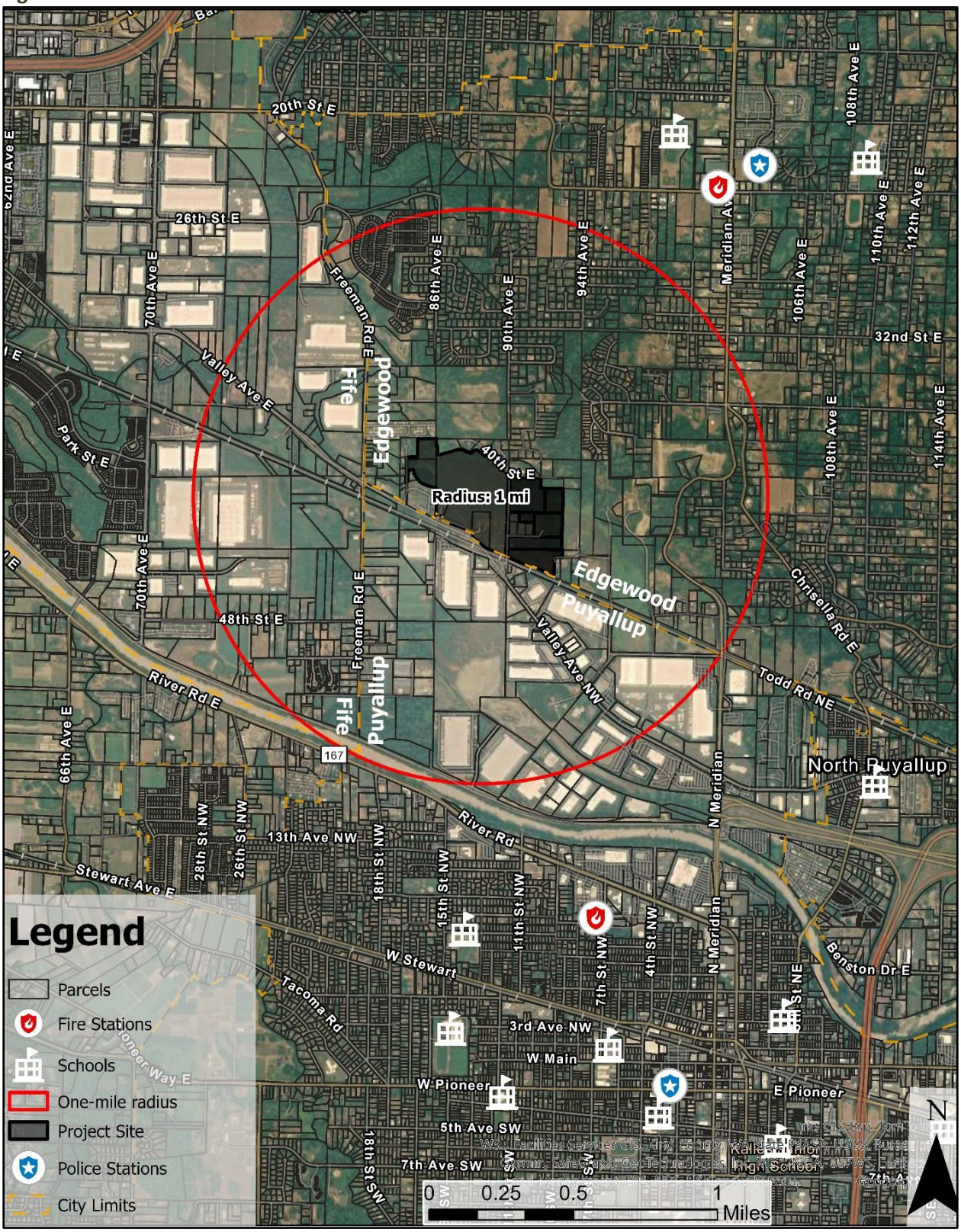
Fire and Emergency Medical Services

The project site and surrounding parcels are served by the East Pierce Fire and Rescue, which provides both fire and emergency medical services. East Pierce Fire and Rescue serves Bonney Lake, Edgewood, Milton, Lake Tapps, the Ridge communities, South Prairie, Tehaleh, and surrounding communities. The closest East Pierce Fire and Rescue Department station is located approximately 1.3 miles northeast of the project site (3.7 miles travel distance). The parcels immediately south of the project site (within the City of Puyallup) are served by Central Pierce Fire and Rescue.

Schools

The project site and surrounding parcels are served by Puyallup School District. Puyallup School District serves an area of 54 square miles covering multiple jurisdictions and includes 22 elementary schools, seven (7) junior high schools, three (3) high schools, and one (1) alternative high school. The closest elementary school is Northwood Elementary School in Edgewood, approximately 1.2 miles north of the project site (3.8 miles travel distance). The closest junior high is Edgemont Junior High in Edgewood, approximately 1.5 miles northeast of the project site (4.1 miles travel distance), and the closest high school is Puyallup High School, located approximately 1.9 miles southeast of the project site in Puyallup (2.8 miles travel distance).

Figure 12.1: Public Services within a One-Mile Radius of the Site



12.1.2 Utilities

Electricity

The project site and surrounding parcels are serviced by Puget Sound Energy (PSE) for electric needs. PSE also serves the City of Puyallup, adjacent to the south of the project site. The project site is served by the Cedarhurst 17 distribution circuit and the White River to Alderton #4 115kv transmission circuit. PSE has reported that this substation is currently exceeding capacity based on existing approved loads and future load projections. However, PSE further stated that the load request may be accommodated through shifting load to other substations in the area. A "Will Serve" Letter from PSE received on March 20, 2024, confirmed that electric service will be extended to the project site (Appendix BB).

Gas

PSE also provides natural gas to the project site. A "Will Serve" Letter from PSE received on April 5, 2024, confirmed gas service will be extended to the project site, if in compliance with the terms and conditions of Gas Rule 6 and Schedule 6 on file with Washington Utilities and Transportation Commission (Appendix CC).

Water

Once developed, the project site will be served by the City of Fife Water District. Multiple properties in the vicinity of the project site to the north, east, and west of the project site and the project site itself are currently within the Mountain View-Edgewood Water service area. These properties are planned to become part of the City of Fife Water District, contingent on Washington State Department of Health and the Pierce County Boundary Review Board approval. The nearest water supply to the project site is located at the intersection of Valley Avenue East and Freeman Road East. The properties to the south of the project site are within the City of Puyallup Water Service District. Although the project site will be within the City of Fife Water District, most of the work proposed for water connection will be within the right-of-way along Valley Avenue North. This right-of-way is within City of Puyallup jurisdiction and will therefore require approval to install a water system within this right-of-way.

Sanitary Sewer

The project site will be served by the City of Puyallup Sewer District, as planned in the City of Edgewood General Sewer Plan following execution of an Interlocal Agreement. The Puyallup Sewer District wastewater and stormwater collection system is comprised of 190 miles of pipe; 32 detention ponds; 6,500 manholes; 10,000 lateral connections; and 15,000 acres of drainage. Surrounding parcels to the north, east, and west are within the City of Edgewood's future sanitary sewer service area to be routed to the City of Puyallup and are currently served by onsite septic systems.

Communications

The Applicant will coordinate with the various communication service providers for needed internet and communication services on the project site. Communication services within the vicinity of the project site are provided by the following:

- Landline telephone service and internet are provided by CenturyLink (also known as Lumen Local).
- Wireless mobile services are provided by AT&T, Verizon, and T-Mobile.

12.2 Environmental Impacts

12.2.1 No Action Alternative

Under the No Action Alternative, no development of the site would occur and the project site would remain vacant. No changes would occur to existing public services or utilities.

12.2.2 Impacts Common to Both Action Alternatives

Police Services

During construction, the Applicant will coordinate with the Edgewood and Puyallup police departments for any interim police services including traffic control services, if necessary. There will be an increase in traffic due to trucks entering and exiting the site during construction and operation for both Action Alternatives. This increase in traffic may cause congestion, potentially resulting in higher police response times to the project site and surrounding areas. With equipment on site during construction, there could also be potential for an increase in theft activity. These impacts are anticipated to be minimal overall and are not anticipated to impact police services in the vicinity of the project site.

Fire and Emergency Medical

Increases in traffic due to trucks entering and exiting the site during construction and operation may cause congestion, resulting in higher emergency service response times to the project site and surrounding areas. With increased traffic there is also potential for an increase in the number of collisions on or near the project site, potentially requiring the need for emergency medical services. These impacts are anticipated to be minimal overall and are not anticipated to impact fire and emergency medical services in the vicinity of the project site.

Schools

Neither of the Action Alternatives propose any residential uses and will therefore not require the need for additional capacity at schools in the vicinity of the project site, which are served by the Puyallup School District. Additionally, the closest school, Northwood Elementary School, is approximately 1.2 miles (2.1 miles in travel distance) from the site and is not expected to be impacted by this proposal.

Electricity and Natural Gas

Both Action Alternatives will utilize PSE for electricity and natural gas needs. This increase in demand of electricity and gas could potentially impact PSE's overall capacity in the service area unless service upgrades are made to accommodate the increased demand; however, PSE has stated that the additional electrical load request for the project may be accommodated through shifting load to other substations in the area.

Water

The project site will have water provided by the City of Fife Water District. It is anticipated that increased water usage will occur during construction; however, this increased water usage will be temporary. Once the proposed development is complete, demand for water will be typical of that of a high cube/fulfillment center with warehouse facilities and/or industrial park with warehouse facilities, which have relatively low water demand. The completed project will increase demand for water from the City of Fife Water District; however, the District has confirmed that there is adequate capacity to serve the proposed development.

Sewer
The project site will have sanitary sewer services provided through an Interlocal Agreement between the cities of Edgewood and Puyallup. The completed project will increase demand for sanitary sewer needs from the City of Puyallup Sewer District however the District has confirmed that there is adequate capacity to serve the proposed development.

Communications
Both Action Alternatives would require internet and communication services for general operations. The need for internet and communication services on the project site are not expected to impact adjacent parcels or the wider service area.

12.3 Mitigation Measures

12.3.1 Common to Both Action Alternatives

Electricity and Natural Gas
To accommodate either of the Action Alternatives, upgrades will be needed to serve the site including the addition of feeder extensions and a pad mount switch. Both Action Alternatives will be required to provide the electricity and gas improvements identified by PSE through the electricity and gas feasibility analysis. This includes working with PSE to provide the following:

- Shifting existing loads to other substations in the area
- Feeder extension
- Pad mount switch
- Updating the RS-2750 that serves the area
- An approximately 2,500 feet main extension from the existing 8-inch IP main on Freeman Road East

PSE has stated that the service area will require upgrades in order to serve the proposed project for each of the Action Alternatives. This will include updating the RS-2750 that serves the area, which has a utilization factor of 1 (100 percent). Additionally, an approximately 2,500-foot main extension from the existing 8-inch IP main on Freeman Road East is required. A “Will Serve” Letter from PSE was received on April 5, 2024, which confirmed gas service will be extended to the project site, if in compliance with the terms and conditions of Gas Rule 6 and Schedule 6 on file with Washington Utilities and Transportation Commission (Appendix CC).

Water
The proposal will require the extension of the City of Fife water main through the City of Puyallup right-of-way to the project site. The Applicant will be required to obtain all necessary water connection permits/approvals from the City of Fife and right-of-way permits/approvals from the City of Puyallup.

Sewer
The project is required to contribute a proportionate share to future upgrades of the 15-inch diameter gravity line project, which will increase conveyance capacity. The required share will be agreed upon in the future between the necessary parties.

12.4 Significant Impact Determination

This environmental review has determined that any adverse impacts to public services and utilities that may arise during construction and operation of the project under both of the Action Alternatives are deemed to be **mitigated significant adverse impacts** and could be minimized, reduced, or eliminated with implementation of mitigation measures described above, including system upgrades, contributing to a proportionate share of future upgrades, and coordinating with the necessary parties to determine additional requirements.

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