CHAPTER 5 BUILT ENVIRONMENT

5.1 LAND/SHORELINE USE AND HOUSING

5.1.1 Methodology

Land use information was compiled through site visits, field reviews of adjacent land uses, review of city maps, and review of recent aerial photographs and other secondary sources. The consistency of the project proposal with adopted plans and development regulations was assessed by analyzing the City of Everett's (the City's) Comprehensive Plan and Land Use Code. Consultations were conducted with City staff to ensure that the collected information was current, accurate and complete.

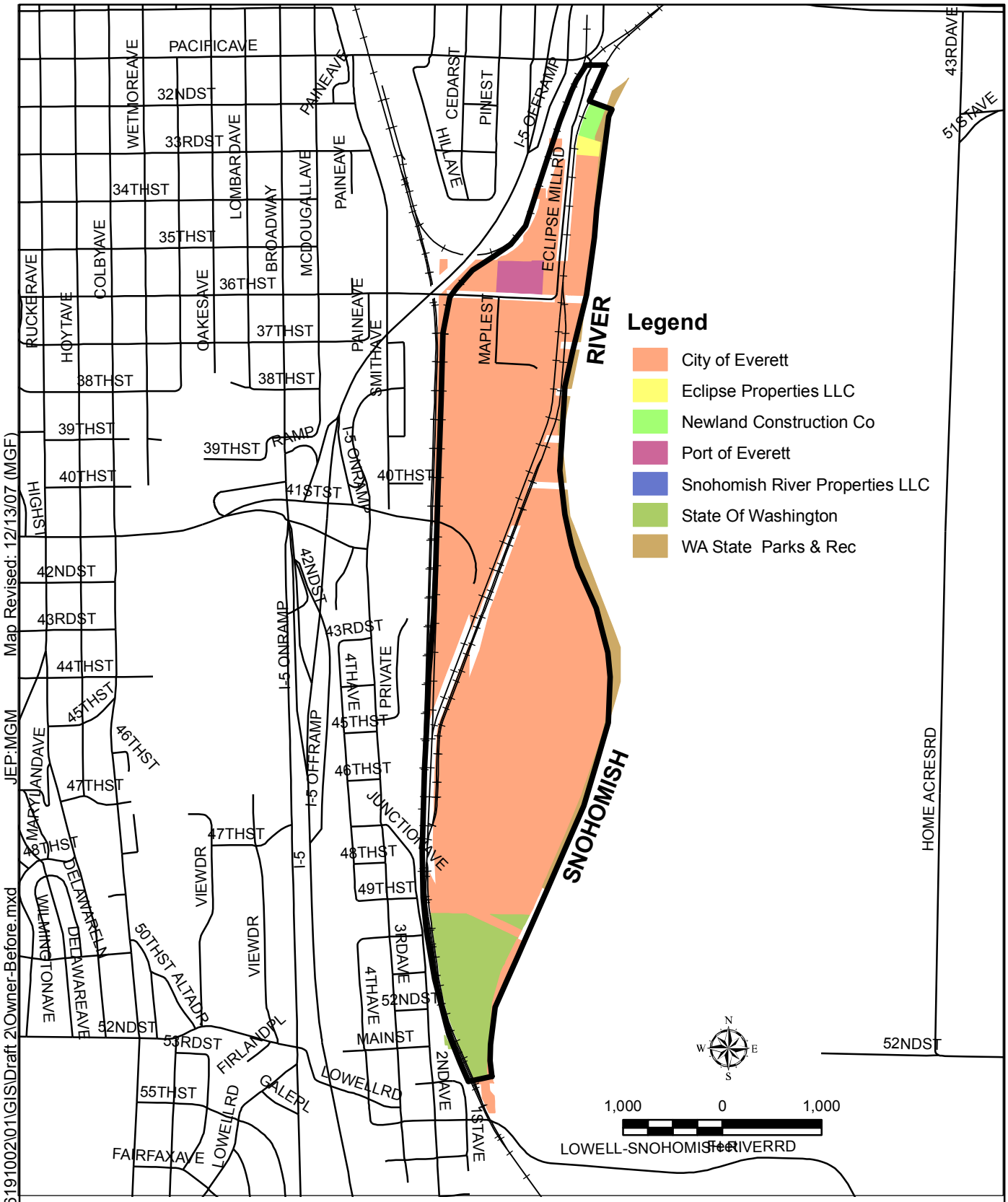
5.1.2 Affected Environment and Existing Land and Shoreline Uses

5.1.2.1 Vicinity

With a land area of over 30 square miles, and a population of over 100,000, Everett is the largest city in Snohomish County. The City serves as the center for governmental and cultural activities in Snohomish County.

5.1.2.2 History of Project Site

The project site consists of approximately 221 acres, bounded on the east by the Snohomish River and on the west by the mainline railroad tracks of the Burlington Northern Santa Fe (BNSF) railroad, as shown in Figure 5.1-1, Parcel Ownership Map (2007). The project site is primarily former industrial property, including the former Simpson and Eclipse Mill sites, and a portion of the site (the Landfill/Tire Fire site) was previously used as a landfill and a discarded tire storage area. Lowell Riverfront Park is located at the south end of the site. Table 5.1-1, Site History, shows relevant history of the project site from 1891 to 2007.



Map Revised: 12/13/07 (MGF)
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Office: BOIS

Notes:
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Data Sources: ESRI Data & Maps, Street Maps 2005

Transverse Mercator, Zone 10 N North, North American Datum 1983
North arrow oriented to grid north

Parcel Ownership (2007)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.1-1

Table 5.1-1. Site History

Year	Event/Description
Circa 1900	Eclipse Mill/Drywall Site, H.O. Sieffert and Company used the site for a shingle mill.
1903 - 1962	W.I. Carpenter and H.W. Stuchell Eclipse Lumber Company Saw, use Eclipse Mill/drywall site for Shingle and Planing Mill.
1962 - 2004	Eclipse Mill (Stuchell), Newland Construction (1983), Port of Everett, GT Drywall - Miscellaneous log handling and chipping operations and construction office (Newland), Sheltered workshop (Port), drywall distribution.
2004 - Present	City of Everett/Eclipse Properties LLC/Newland/Port of Everett - Stockpiling construction dirt (City), sheltered workshop (Port), Construction offices (Newland), vacant (Eclipse Properties LLC, City "Drywall" parcel).
1891 to 1972	Simpson site is home to pulp and forest products mills.
1917 to 1974	Landfill/Tire Fire site is used for a solid waste disposal.
1972	Simpson site is used for log storage and washing railroad cars.
1974	Landfill/Tire Fire site stops accepting waste.
1975	Landfill is officially closed.
1977 to 1983	Landfill/Tire Fire site is operating as a commercial recycling operation that includes storage of tires.
1979/1980	U.S. Army Corps of Engineers fills Simpson Pad with 700,000 cubic yards of river sediments.
1983 to 1984	Tire fire at Landfill/Tire Fire site.
1985 to 1994	Official analyses of Landfill/Tire Fire site are conducted. The Washington State Department of Ecology (Ecology) issues Consent and Enforcement Orders for the remediation of the Landfill/Tire Fire site.
November 1991	"Everett 2000, Vision, Goals, & Actions" is adopted by City Council. "The waterfronts are a primary base for Everett's economic future including port activities, industry, housing, tourism, commerce, and entertainment."
January 15, 1992	Simpson site $3 million purchase agreement signed.
1992/1993	City obtains grant to construct first phases of Riverfront Trail.
1993 /1994	Extensive cleanup of riverfront sites. Debris and industrial waste from past uses is transported off-site.
1994	City obtains Department of Community, Trade & Economic Development grant to restore a two-acre wetland connecting Bigelow Creek with the larger wetland to the north. Construction is completed in May 1995.
1994	City Council adopts Comprehensive Plan vision for riverfront, reaffirming zoning and vision.
1994/1995	City removes eight transient camps and five encampments from Simpson site. The City removes 15 car bodies, 150 tires, 140 yards of roofing material and 200 yards of litter and garbage.
1995	City receives "no further action" letter from the Ecology for Simpson site.
1995 to 2004	Remediation work on former Landfill/Tire Fire site is conducted. Remediation includes capping and covering the site, and negotiating a Cleanup Action Plan (CAP) with Ecology.
1996	City completes construction of Riverfront Trail and opens it to the public.
1997	City obtains a U.S. Environmental Protection Agency (EPA) Brownfields grant to explore redevelopment on the site.
1998	City improves boat launch and surrounding areas of nearby Rotary Park at

Year	Event/Description
	approximate cost of $576,000.
1999	City purchases 276 acres of farmland just southeast of the Lowell Riverfront Trail and Rotary Park, for anticipated athletic fields use, at a cost of $1.2 million
2000	City prepares CAP under Model Toxics Control Act for site redevelopment.
2000	City Shoreline Advisory Committee recommends a mixed-use vision for redevelopment of the riverfront.
2000	City is awarded supplemental EPA Brownfields funding.
2000 to 2001	City adds 200,000 cubic yards of fill material to the Simpson site.
June 2001	• Pilchuck Audubon Society and Public Employees for Environmental Responsibility (represented by Earthjustice Legal Defense Fund) and Tulalip Tribes file lawsuits against National Marine Fisheries Service (NMFS) challenging the adequacy of the biological opinion written for the 41st Street Overcrossing Project—particularly with regard to Endangered Species Act (ESA) protection of Puget Sound Chinook salmon. • City begins construction on the first phase of the 41st Street Overcrossing to improve freight mobility by enabling the eventual closure of the 36th Street grade crossing of BNSF mainline tracks between Seattle and Chicago. Overcrossing also provides a direct access from the 41st Street Interchange to riverfront properties.
2001 to 2004	City completes the evaluation and monitoring report and Consent Decree Work Scope for Ecology regarding the Landfill/Tire Fire site. The Landfill/Tire Fire site is approved for redevelopment.
2002	• City completes Phase I of the construction of the 41st Street Overcrossing (east and west approaches and earthwork); Phase II construction suspended pending the resolution of the lawsuit and the drafting of a new biological opinion under the ESA. • Updated Comprehensive Plan, Shoreline Master Program (SMP) and Shoreline Public Access Plan (SPAP) become effective. Updates include vision statements for redevelopment of the riverfront area.
November 2003	Tulalip Tribes lawsuit is settled
December 2003	NMFS issues new biological opinion concluding that 41st Street Overcrossing is not likely to jeopardize Chinook salmon or their habitat.
April 2004	Earthjustice lawsuit is settled.
May 13, 2004	Federal Highways Department issues Finding of No Significant Impact (FONSI) for 41st Street Overcrossing Project. Construction is allowed to proceed on Phase II.
August 2004	Phase II construction contract for the 41st Street Overcrossing Project (railroad overcrossing and roadway surface) is awarded to Wilder Construction for $7,774,028.
October 2004	• Phase II construction work for the 41st Street Overcrossing Project commences. • City advertises for Statement of Qualifications for developers interested in riverfront properties

Year	Event/Description
2005	• Washington State Department of Transportation (WSDOT) constructs a stormwater treatment system and wetland enhancement area for treating stormwater runoff from the I-5 expansion project. • Construction of a pedestrian bridge over the railroad tracks is commenced by WSDOT. The pedestrian bridge will connect the Lowell neighborhood to the riverfront properties and existing Riverfront Trail. • Eclipse Mill Road stockpiling of 250,000 cubic yards or temporary fill and preload is authorized. • City selects OliverMcMillan LLC as the preferred developer for the riverfront properties and enters into an exclusive negotiation agreement. • 2005 Comprehensive Plan/SMP amendments adopted to implement appeal settlement agreement. • Habitat Enhancement Study for Riverfront Properties completed: *"Snohomish Riverfront Properties at Bigelow Creek: Conceptual Enhancement Program"* (Watershed Company).
2006	41st Street Extension to Simpson Pad approved.
2007	• 41st Street Overcrossing completed (opened in 06). • City authorizes sale of City-owned riverfront properties to OliverMcMillan, LLC. • Property Disposition Agreement includes minimum OliverMcMillan development requirements and City work requirements, including public amenities.

Figure 2.1-2 shows the six distinct geographic areas that constitute the project site, which are described in Section 2.1, Description of the Project Site.

5.1.2.3 Existing Land Uses

The City-operated animal shelter and the City's public works storage yard are located on the Landfill/Tire Fire area of the site. The Diversified Industries building is located on the Eclipse Mill/Port of Everett area on the property owned by the Port of Everett. Under the Property Disposition Agreement between the City and OliverMcMillan, the animal shelter and public works storage yard will be relocated, and the animal shelter building will be demolished. These actions are occurring under separate SEPA reviews/permits.

The area adjacent to Eclipse Mill Road, previously used for log storage, is currently used for soil stockpiling. The Newland property, east of Eclipse Mill Road and south of Pacific Avenue, includes an office building, storage buildings and storage yard, boat ramp and dock. The Stuchell property, located immediately south of the Newland property, is currently vacant.

BNSF railroad tracks currently bisect the site, and run between the Simpson Pad and the Landfill/Tire Fire site (see Figure 5.1-1). Under an existing agreement between the City and BNSF, these railroad tracks will be removed and relocated to the west by BNSF no later than the end of 2008.

With the exception of the Lowell Riverfront Park trail, picnic facilities, parking area, and street access are described below; the remainder of the site is vacant.

5.1.2.4 Critical Areas

A number of critical areas including wetlands and Bigelow Creek exist on the site, and portions of the site are in the floodplain or floodway. Critical areas, and the proposal's consistency with critical area and flood plain regulations, are addressed in Chapter 4, Natural Environment.

5.1.2.5 Street Access

Street access in and around the project area is discussed in detail within the Transportation Section 5.5 of this document.

5.1.2.6 Adjacent Land Uses and Affected Properties

The affected environment and existing land uses located to the west of the project site (Vicinity Map, Figure 2.1-1) include the BNSF mainline railroad tracks, Lowell Park, the Lowell neighborhood and I-5. The BNSF mainline tracks lie between and separate the site from the Lowell neighborhood, limiting direct access from the neighborhood to the site. The Lowell neighborhood is a long-established historic neighborhood consisting primarily of single-family residences, with some small commercial nodes. Uses in the commercial nodes include a grocery/restaurant and office uses. The Lowell neighborhood is located on an east facing slope that overlooks the project site. Industrial and heavy commercial uses are located adjacent to the west of the Landfill/Tire Fire area of the site, west of the BNSF tracks and abutting Smith Street. Land uses in this area include a manufacturer of industrial equipment, truck parts and service, industrial sheet metal, warehousing, a service station and other similar uses.

Farming and agricultural uses are located across the Snohomish River east of the site on Ebey Island. Ebey Island is also located within the designated floodplain.

A number of heavy commercial and industrial uses, such as contractors' storage yards are located north of the site.

The City's multi-modal transportation center, Everett Station, is located immediately south of Pacific Avenue, approximately four blocks west of the project site. Pedestrian improvements exist along Pacific Avenue between Everett Station and the north end of the project site.

Uses south of the site are primarily agricultural and residential. However, the areas immediately adjacent to the south of the site include heavy industrial uses and Rotary Park.

5.1.3 Local Plans and Regulations

5.1.3.1 Growth Management Act and Shoreline Management Act

The State of Washington Growth Management Act (GMA) (Revised Code of Washington [RCW] 36.70) requires certain jurisdictions to develop and adopt Comprehensive Plans that include a number of mandatory elements and guide the physical and economic growth of the community over a 20-year period. The GMA also requires that local jurisdiction adopt and enforce implementing regulations that are consistent with the adopted Comprehensive Plan.

The Shoreline Management Act (SMA) includes additional policies for protection and development in shoreline jurisdiction. The SMA is administered by local governments and Ecology. Cities and counties develop shoreline master programs (SMPs) that regulate development along larger streams (such as the Snohomish River), lakes and marine waters. Ecology reviews local programs and permit decisions. The

shoreline environment designations and policies in the local programs are incorporated into the comprehensive plan, while the regulations are incorporated into the development regulations (land use code).

5.1.3.2 City of Everett Comprehensive Plan and Land Use Code

The City's plan consists of a Land Use Map designating the desired use of lands for various activities, and policies to guide government and private decision makers in determining how Everett will grow, look and operate in the future.

The City adopted its first comprehensive plan under the GMA in 1994. The 1994 Plan was updated on an annual basis to respond to changing land use needs and concerns within the community. A major 10-year update of the plan was completed in August 2005.

A comprehensive update of the SMP was completed in May 2002. The SMP was incorporated into the Shoreline Land Use Element of the Comprehensive Plan and Chapter 33D of the Zoning Code (Everett Municipal Code [EMC] Title 19).

5.1.3.3 Comprehensive Plan and Shoreline Master Program (SMP) Designations

The comprehensive plan designations for the project site are Waterfront Commercial and Aquatic. The 4.5 Waterfront Commercial designation applies to all areas of the project site except the Simpson Category 1 Wetlands and the areas immediately adjacent to the Snohomish River, which are designated 7.1 Aquatic. The Waterfront Commercial designation is applied to "Water-oriented districts that create or reinforce a distinct character associated with the shoreline location, and that combine commercial activities with recreational activities or promote a high level of public contact with Everett's shoreline" (Policy 2.2.6).

The SMP designations are Urban Multi-Use, Urban Conservancy, Urban Conservancy-–Recreation, Aquatic and Aquatic Conservancy. Development activities that fall within shoreline jurisdictional boundaries are subject to applicable SMP designations, policies and regulations. The designations as applied to specific areas of the project site are identified in more detail below (see Figure 3.2-1, Shoreline Jurisdiction).

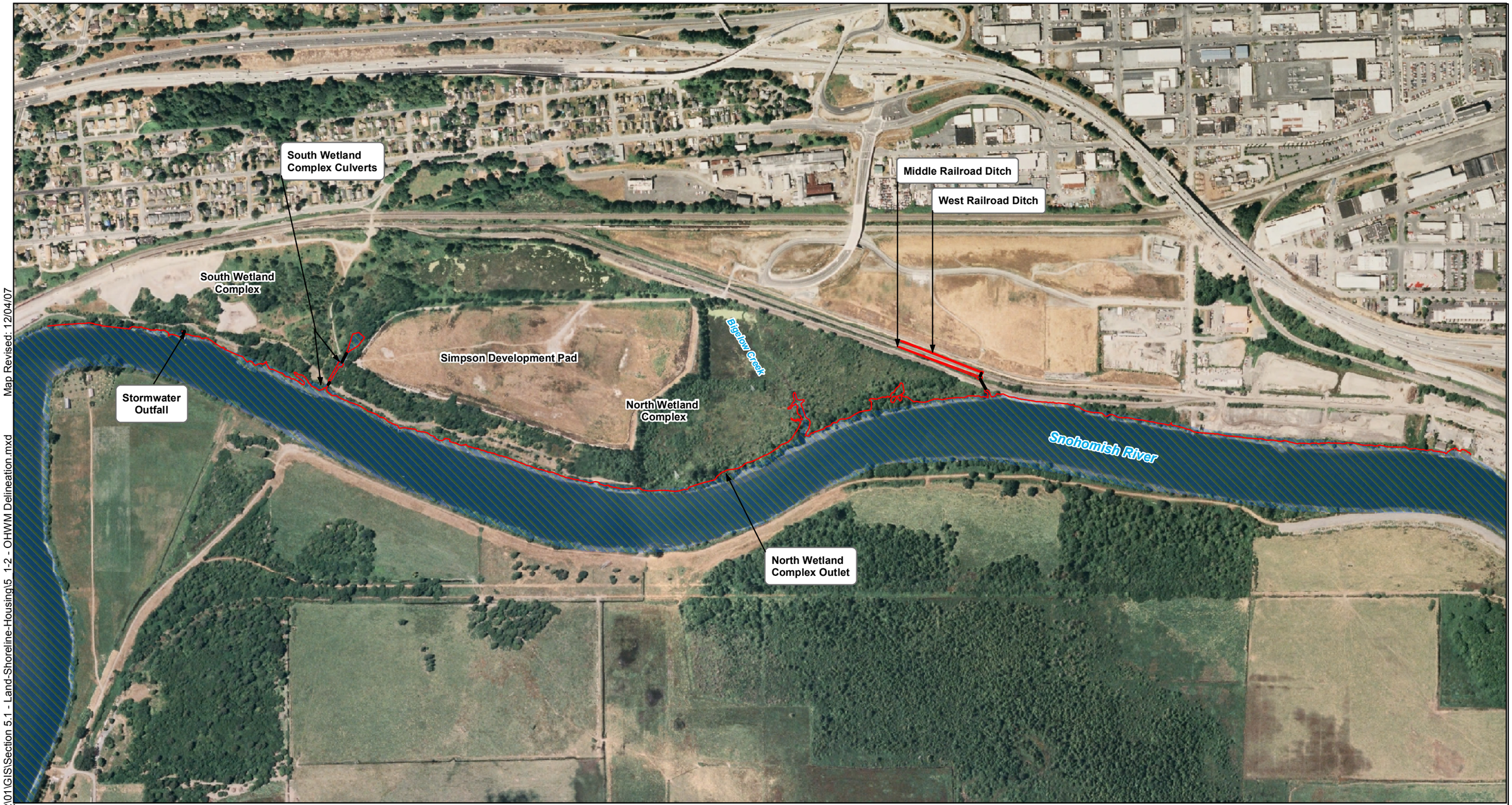
The Urban Multi-Use designation applies to the following site areas within shoreline jurisdiction: the Simpson Pad, the Landfill/Tire Fire site, and the project site north of 36th Street to Pacific Avenue, including the Eclipse Mill/Port of Everett site and the Newland and Stuchell properties.

The Urban Conservancy designation applies to Bigelow Creek and the Category 1 wetlands, along with the riparian corridor along the eastern edge of the property.

The Urban Conservancy-Recreation designation applies to the project site south of the Simpson Pad, within shoreline jurisdiction.

The Aquatic Conservancy designation applies to the 2000 Snohomish Estuary Wetland Integration Plan (SEWIP) Salmon Overlay assessment units adjacent to the northern Category 1 wetland and the riparian corridor to the south. The waterward boundary is the boundary of the assessment unit (-10 feet mean lower low water [MLLW]). The Aquatic designation applies to all other water areas of the Snohomish River, waterward of the Ordinary High Water Mark (OHWM).

Figure 5.1-2 shows the OHWM and approximate shoreline jurisdictional boundaries that extend 200 feet from the OHWM on the project site.



Map Revised: 12/04/07

Path: P:\6\6191002\01\GIS\Section 5.1 - Land-Shoreline-Housing\5_1-2 - OHWM Delineation.mxd

Office: BOIS

Notes:
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Data Sources:
Aerial image obtained from TerraServer dated Thursday, June 13, 2002.
OHWM and Snohomish River delineated from sketch provided by GeoEngineers field staff, aerial image and GPS data collected with Trimble GeoXT unit by field crew on December 12 and 22, 2006.
Universal Transverse Mercator, Zone 10, North American Datum 1983

Legend

- Culvert
- Ordinary High Water Mark
- Snohomish River

W S N E

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Feet

Ordinary High Water Mark Delineation

Everett Riverfront Redevelopment
Everett, Washington

5.1-2

5.1.3.4 Comprehensive Plan/Shoreline Master Program Vision Statements, and Management Policies

The Shoreline Element of the Comprehensive Plan includes vision statements and management policies for specific properties to further define the shoreline environment designations.

Vision Statements

Lands located along the Snohomish River south of the SR 2 bridge and north of 36th Street: This area shall be developed with high quality mixed-use development including multiple family residential, office park, light commercial and high quality public access on the site.

Landfill/Tire Fire Site/Eclipse Mill/Drywall Site: The Tire Fire / Landfill Site shall be developed as a high quality, master planned "lifestyle entertainment center". The master plan shall encourage public enjoyment of the river and shorelines and emphasize an attractive, people oriented mixed-use commercial center with public access, abundant parking, a plaza or public center area, and separation between pedestrians and automobiles encouraging pedestrian movement. The master plan shall orient buildings and facilities to maximize visual access to the river, estuary and mountain views and provide visual and direct access to the river and prominent riverfront trails. Examples from which to draw design and land use concepts include but are not limited to: Granville Island and Nanaimo in British Columbia, Portland's Riverfront, Pickering Farms in Issaquah, and Carillon Point in Kirkland. However, the design master plan should be tailored to Everett's needs and overall vision for the riverfront. The mixed uses may include commercial/retail, office, multifamily residential, public access to the shoreline, and ample trails and walkways.

Developable Portion of Simpson Site: The vision for the 45-acre "development pad" on the 136-acre Simpson site is an attractive, master planned campus-like office park or high quality mixed use office/residential development. A possible use for this site could be the headquarters for a high quality high tech company. The remainder of the Simpson site will be for conservation and park purposes except for transportation and utility access. The riparian corridor along the river will be preserved with public access including a trail. The southern portion of the site should be open space and park use.

Simpson Category 1 Wetlands and Riparian Corridor: The Category 1 wetlands and the riparian corridor on the Simpson site will be for conservation, except for transportation and utility access. The riparian corridor along the river will be preserved with public access including a trail.

South Simpson Site: The Category 3 wetlands on the Simpson site will be for conservation and park purposes, except for transportation and utility access. The southern portion of the site should be open space and park use.

Management Policies

Simpson and Landfill/Tire Fire Sites: Development of these sites should be of a high quality design and should only occur after approval of a master plan involving a public review of the site plans through the Planned Development Overlay Process (Policy 3.15.4).

Area South of Highway 2: Encourage high quality mixed-use development, including multiple family residential, office park, and light commercial uses. Water-oriented uses, such as restaurants with views of the waterfront are encouraged. However, nonwater-oriented commercial, and/or multiple-family residential uses should be allowed in this area, provided the development provides views to the Snohomish River from and through the site. High quality public access should be provided along the entire shoreline. Access shall be located so that it does not impact habitat for endangered species.

5.1.3.5 Shoreline Public Access Plan

The City's *Shoreline Public Access Plan* (SPAP) was adopted on May 21, 2003, as a sub-element of the Comprehensive Plan. Section 7 of the SPAP addresses the shoreline area of the City from Pacific Avenue southward to Rotary Park and includes a number of plan elements that apply to the project property. Elements of the SPAP and consistency of the project with the SPAP are described in detail in Section 5.3 of this Environmental Impact Statement (EIS).

5.1.3.6 Zoning

Zoning Designations

The current zoning of the project site is C-2 Heavy Commercial - Light Industrial, M-1 Office and Industrial Park, and Aquatic. The northern Simpson Category 1 wetland and the portions of the Snohomish River below the OHWM are zoned Aquatic. Some portions of the site have an Urban Flood Fringe District or Floodway zoning overlay. Figure 5.1-3 shows the current zoning designations for the project site, and the surrounding affected area.

Zoning/SMP Regulations

The Zoning Code (EMC Title 19) includes a wide range of regulations that apply to development and use of properties, such as permitted uses by zone, permitted building heights, landscaping and sign standards.

The SMP regulations have been incorporated into the Zoning Code (EMC 19.33D) and apply to properties in shoreline jurisdiction in addition to the standard zoning regulations. These specify additional requirements including, but not limited to, additional use restrictions, standards for specific uses and shoreline modification activities, and public access requirements.

Planned Development Overlay Zoning

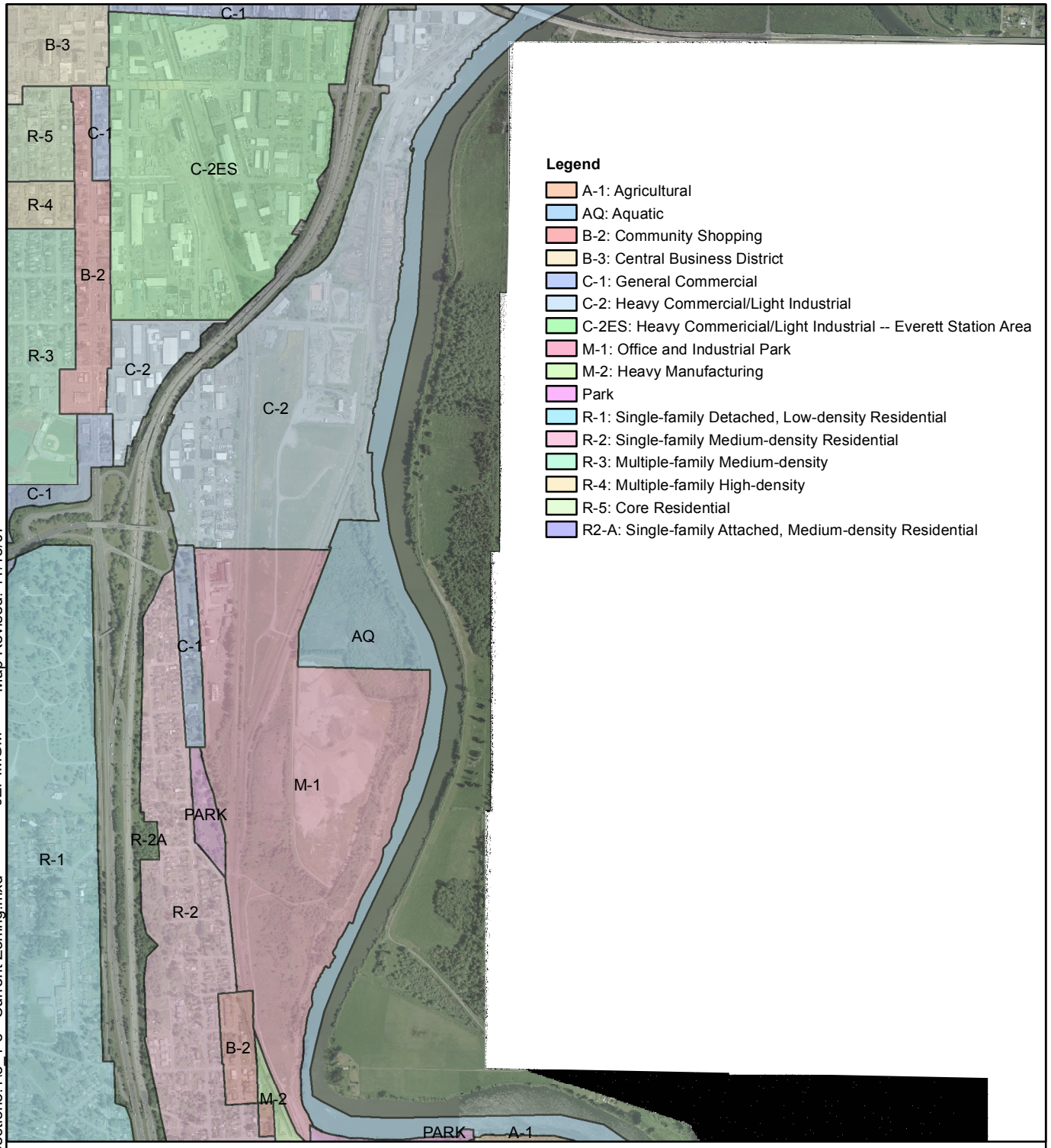
The Planned Development Overlay (PDO) zone is a mechanism to allow a commercial, industrial or residential/nonresidential mixed-use development that is innovative or otherwise beneficial to the community but that does not strictly comply with the provisions of the commercial or industrial zone in which the property is located. The intent is to promote high-quality developments that benefit the City, while allowing greater flexibility in the design of such developments. The PDO process allows flexibility for complementary uses not listed in the zoning code classification, and modification of certain zoning and development standards such as building height, setbacks, landscaping and sign and design standards (Zoning Code, Chapter 29.040 and 29.050). The standards of the SMP cannot be modified in a PDO zone.

5.1.3.7 Land Division Regulations

The City's Land Use Code also establishes regulations and procedures for dividing residential and commercial properties into individual lots through subdivisions and binding site plans.

5.1.3.8 Landfill Tire/Fire Consent Decree and CAP

Future development of the Landfill Tire/Fire site is also governed by the Consent Decree and CAP. Those documents restrict future use at the site to commercial, industrial, mixed use, recreational, or multi-family residential (on upper floors only) or public access. The documents also outline various other measures that must be implemented prior to use of this area including the installation and maintenance of an active landfill gas control system for buildings, pavement and open space as development occurs.



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Data Sources: Data and aerial photo obtained from the City of Everett.

Transverse Mercator, Zone 10 N North, North American Datum 1983
North arrow oriented to grid north

Office: BOIS Path: P:\6\6191002\01\GIS\Section5.1\5_1-3 - Current Zoning.mxd JEP:MGM Map Revised: 11/13/07

Current Zoning

Everett Riverfront Redevelopment
Everett, Washington

5.1-3

5.1.4 Impacts

5.1.4.1 Consistency with Local Plans, Policies and Regulations

Action Alternatives

The proposal includes rezoning the property to Waterfront-Commercial (W-C) with a master plan and PDO Zone and development agreement consistent with the Shoreline Element management policies for the Simpson and Landfill/Tire Fire sites (Shoreline Land Use Element, Policy 3.15.4).

The Master Plan would apply to all property within the project area. Conceptual plans for the Newland and the Stuchell properties are included in the Master Plan at this time and the PDO would apply to those properties. Development on the Stuchell and Newland sites may occur earlier than on the OM properties so those properties may obtain Shoreline permits separately from the rest of the project.

Table 5.1.-2, Comprehensive Plan Designation/Equivalent, shows that the current C-2 and M-1 zoning is not consistent with the Waterfront Commercial land use designation or Urban Multi-Use Shoreline Environment designation. The proposal to rezone to W-C will achieve consistency with the Waterfront Commercial and Urban Multi-Use designations.

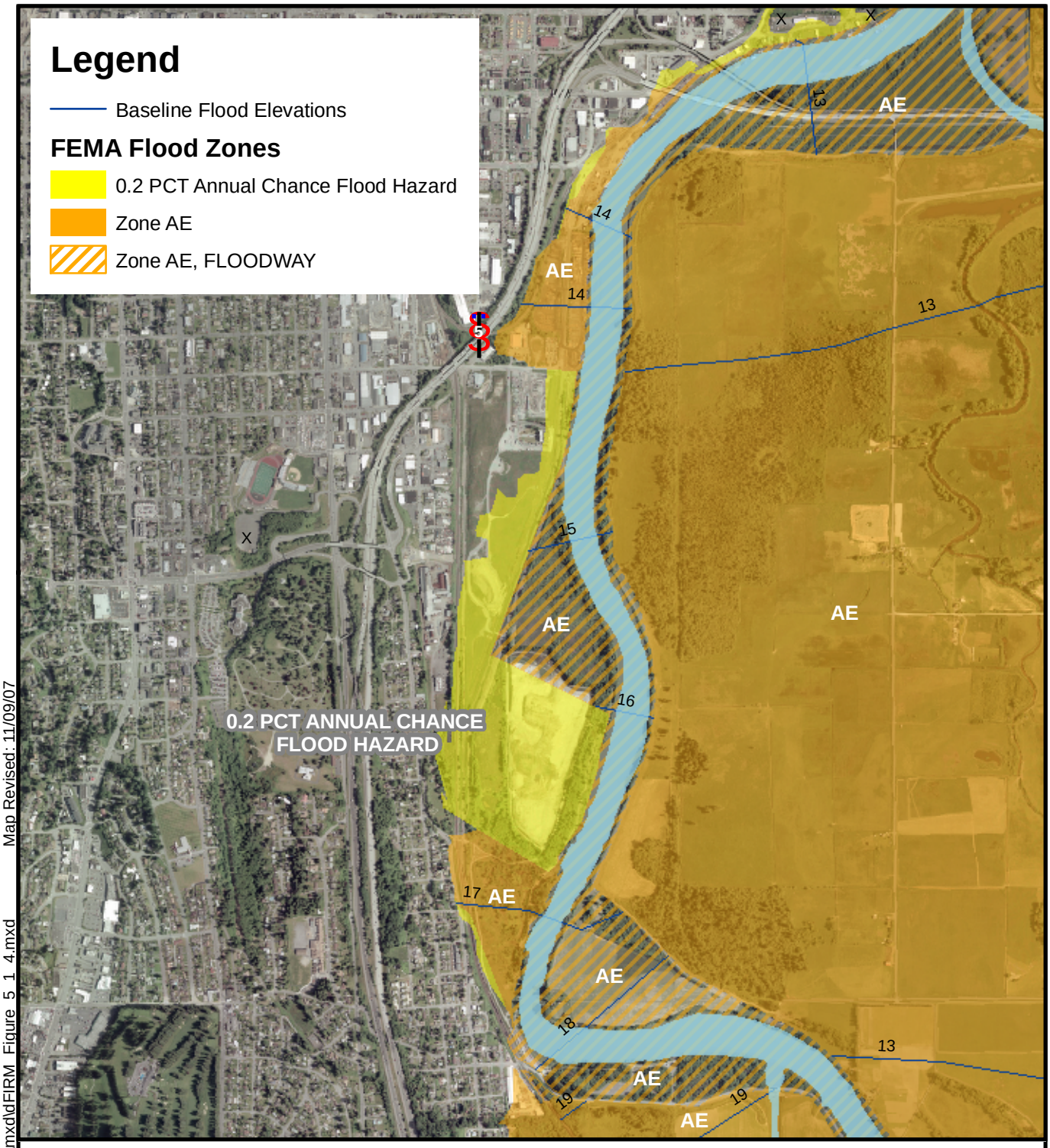
The northern Simpson Category 1 wetland is zoned Aquatic, but portions are above the OHWM. Those portions would not normally be zoned Aquatic, but the city anticipates that restoration actions over time will increase water levels in that area, and Federal Emergency Management Agency (FEMA) maps show the wetland as floodway (see Figure 5.1-4).

Table 5.1-2. Comprehensive Plan Designation/Equivalent

Land Use Designation	Equivalent Zoning	Shoreline Environment Designation
		Urban Conservancy and Urban Conservancy – Recreation designations can be in any land use designation and zone
4.5 Waterfront Commercial	W-C, M-S, RC	Urban Maritime Urban Multi-Use
5.1 Heavy Industrial	M-2	Urban Deep Water Port, Urban Industrial, Urban Mixed-Use Industrial
5.3 Light Industry	C-2, M-M, C-2 ES	Urban Industrial
7.1 Aquatic	AQ	Aquatic Aquatic Conservancy

Notes:
RC - Riverfront Commercial (a new zone to be adopted for the private properties south of Highway 2, east of I-5 and north of the City's Simpson and Landfill/Tire Fire properties; please note that the RC zone has not been written yet.)

The proposed uses generally include: commercial, including retail, office, hotel and restaurant; pedestrian and bicycle trails; open space and public gathering places; boat dock and supporting facilities; and other uses permitted in the W-C zone and the Urban Multi-Use shoreline environment. (For example, uses such as, but not limited to, a theatre, open air market, recreational uses and artist studios are all permitted uses that could be part of the mixed-use redevelopment). The preferred alternative includes single-family, multiple-family and townhouse residential uses, and hotel (lodging). (See Chapter 2 for a detailed description of the proposal (the Preferred Alternative), and other Alternatives included in the EIS).



Data Sources: Aerial photo from Snohomish County; FEMA Flood Zones and Baseline Elevations provided by the Federal EmergencyManagement Agency.

1,750 875 0 1,750 Feet

μ

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Federal Emergency Management Agency Flood Zones

Everett Riverfront Redevelopment
Everett, Washington

GeoEngineers

Figure 5.1-4

Office:BAM Path\P:\6\61910021\03\GIS\mxd\dFIRM Figure 5 1 4.mxd Map Revised: 11/09/07

All of the action alternatives include rezoning the site to W-C, Waterfront Commercial, and approval of a PDO zone and a Master Plan for redevelopment of the site. The WC Zone includes provisions allowing the modification of maximum building heights through the PDO Zone process. The proposed PDO zone for the project proposes a maximum building height of 100 feet for the proposed hotel, and a maximum building height of 65 feet for all parcels other than the Simpson Pad. (The proposed PDO would also include residential design guidelines that would supersede the requirements in EMC 19.15 (Multiple Family Design Guidelines and Development Standards).

The proposal includes compliance with all other current land use regulations, including land division regulations. Residential uses proposed on the Simpson Pad are anticipated to be developed through the City's subdivision process. A Binding Site Plan (BSP) will likely be proposed for redevelopment of the remaining site areas.

The action alternatives are consistent with the SPAP. The action alternatives would provide extensive additional public access and park and open space areas, and would assist in implementing high-priority elements of the plan.

Additionally, all of the alternatives provide wetland and shoreline edge/buffer restoration generally consistent with the restoration concepts included in "Snohomish Riverfront Properties at Bigelow Creek: Conceptual Enhancement Program," and with shoreline policies and regulations.

The action alternatives include using sustainable building and development practices such as those found in the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) system.[5] (LEED provides rating systems that are voluntary, consensus-based, market-driven, grounded in accepted energy and environmental principles, and that strike a balance between established practices and emerging concepts.) For example, LEED-programs entail project goals including proximity to transportation infrastructure, proximity to infrastructure, protection of imperiled species, wetland conservation, non-gated and compact development, and construction pollution prevention, Brownfield redevelopment, reduced automobile dependence, walkable streets, access to transit, passive and active public spaces, certified "green buildings", energy efficiency , and stormwater management, Heat Island Reduction, Stormwater Management, Solar Orientation, Wastewater Management. Many of these objectives are similar to and reflect a number of the objectives, goals and policies of the Comprehensive Plan and development regulations as identified below. Using sustainable building and development practices such as LEED will assist in making the project consistent with the Comprehensive Plan, and meet or exceed the City's design standards.

The proposed Master Plan and PDO zone are consistent with a number of policies that are contained in the Comprehensive Plan- from land use, shoreline use, to economic development, to parks. These include, but are not limited to, the following policy directions:

- Continue to emphasize the integration of housing into commercial areas.
- Incorporate public open space into development proposals.
- Extend existing trails and provide connection to adjacent areas.
- Provide public viewpoints to shorelines.

- Provide public education opportunities for critical areas.
- Encourage economic development that co-locates jobs and housing.
- Provide public access while protecting existing wetlands.
- Promote "a transportation system that includes a trail system and places an emphasis on alternative non-motorized forms of transportation."

A detailed analysis of the proposal's consistency with the Comprehensive Plan is included in the Rezone and project application, which is included as Appendix I.

5.1.5 Housing, Population and Employment

5.1.5.1 City Assumptions for Comprehensive Plan Update

The housing, population and employment generated by the preferred alternative will assist the City in achieving the housing, population and employment growth targets for the community in the adopted Comprehensive Plan. The City used conservative numbers to estimate 2025 population and employment capacity in the city and urban growth area for the recent Comprehensive Plan update. Assumptions for the Simpson and Landfill/Tire Fire sites were an additional 1,000 dwelling units accommodating a population of approximately 1,800 residents and 1,672 employees on the property.

5.1.5.2 Action Alternatives

Table 5.1-3 shows the mix of uses anticipated for each of the alternatives:

Table 5.1-3. Anticipated Alternatives Uses

Alternative 1 (Preferred Alternative)	Total	Simpson Site	Ramp Triangle	Landfill Site	Eclipse Mill Site
Retail	800,000sf		20,000sf	760,000sf	20,000sf
Office	100,000sf		80,000sf	20,000sf	
Hotel	250 Rooms			250 Rooms	
Residential	1,400 Units	600 units	100 Units	400 Units	300 Units
Condominium (Multiple Family)	550		100	250	200
Townhouse	525	275		150	100
Single-Family	325	325			
Alternative 2 and No-Action Alternative	**Total**	**Simpson Site**	**Ramp Triangle**	**Landfill Site**	**Eclipse Mill Site**
Retail	700,000sf			500,000sf	200,000sf
Office	700,000sf	600,000sf		100,000sf	
Hotel	0				
Residential	0				

Alternative 1 (Preferred Alternative)
This alternative would create 1,400 residential units and would generate a population of up to 2,881 people. The commercial uses would generate up to 2,200 employees. It is estimated that after completion

of the project, the new commercial development would result in several thousand customers and visitors to the site each day during peak site use. Human activity levels are anticipated to be relatively consistent throughout the day, and with the anticipated mix of uses, evening and weekend activity is also expected to be substantial.

Alternative 2
This alternative would generate up to 2,800 employees. Evening activity levels are expected to be lower on the Simpson Pad under Alternative 2, where the pad is developed with office use.

Employment projected for both action alternatives would help meet employment growth projections for the community. The additional employment will increase the jobs-to-household ratio for this area of the City.

Alternative 3 (No-Action Alternative)
As noted in Section 2.3, Project Alternatives, it is assumed that future development under the no-action alternative would be consistent with the adopted Comprehensive Plan/SMP vision statements for the riverfront area. Therefore, impacts are at a minimum anticipated to be similar to Alternative 2. Nevertheless, if development is delayed, there may be more pressure on other areas of the city and county to accommodate near term population and employment growth.

5.1.6 Construction Impacts

Construction impacts from redevelopment of the site would include temporary disruption of access and/or utility services to uses on or adjacent to the site or nearby uses, including the existing animal shelter and the public works yard if these are not relocated prior to construction. Construction activities could also result in short-term disruption of the use of sections of the existing Riverfront Trail. Construction-related impacts would be temporary in nature, and would extend through the duration of all construction phases.

Construction impacts would include demolition of the existing animal shelter building, relocation of materials on the public works yard and potentially the Diversified Industries building.

5.1.7 Indirect and Cumulative Impacts

In general, any large-scale redevelopment may create pressure for land use changes in the vicinity of the redevelopment. The proposed residential uses on the Simpson Pad are substantially separated from land uses located adjacent to and outside the boundaries of the project site. Therefore on-site residents and businesses are not likely to pressure for redevelopment of the industrial uses complain about impacts from nearby industrial uses. For example, the industrial use to the south of the site is approximately 2,000 feet south of the southern edge of the Simpson Pad.

The public amenities provided on-site could result in increased property values in the surrounding area and increased demand for businesses and residents to locate near the area. This could result in additional redevelopment in the vicinity and pressure for more intense land use designations in the long term. The City's long term plan is to have a strong harborfront and riverfront with a band of redevelopment in between.

5.1.8 Mitigation Measures

The proposal is redevelopment of a brownfields site that will comply with City's land use plans and regulations. In addition, the proposal incorporates standards that go beyond City code requirements, including using sustainable building and development practices such as LEED standards, and extensive

design guidelines. Residential Design guidelines include landscape elements and signs within the residential areas. No additional mitigation measures have been identified to mitigate impacts on land and shoreline use.

5.1.9 Unavoidable Impacts

The project is not anticipated to have unavoidable adverse land or shoreline use impacts.

5.2 VISUAL QUALITY / LIGHT, GLARE AND SHADOWS

5.2.1 Methodology

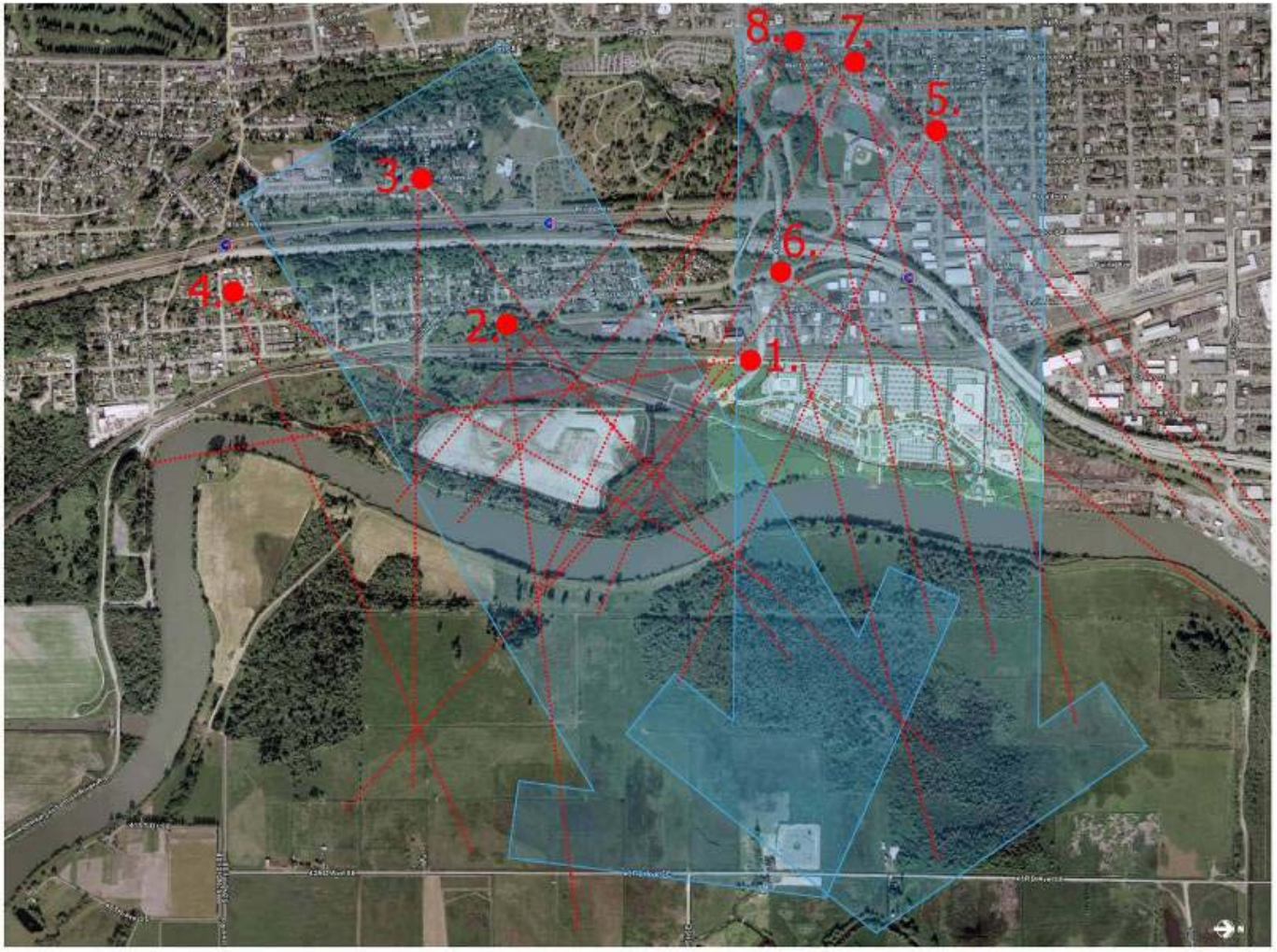
Development on the area of the Landfill/Tire Fire Site north of the 41st Street bridge and street extension to the project (north Landfill/Tire Fire Eclipse Mill) will be potentially visible from areas to the east and south of the project area. The Simpson Pad and the south Landfill/Tire Fire Parcels will be visible to the residents of the Lowell neighborhood and areas to the east and south of the project site. The purpose of this section is to describe the visual impacts of the development on the surrounding neighborhoods.

The Federal Highway Administration (FHWA) has published a manual for assessment of visual impacts (FHWA-HI-88-054) which is considered to provide a generally accepted methodology for assessing the potential visual impacts for projects. Although developed for highway projects, the approach for identifying the potential importance of visual effects and then assessing the nature of those effects is also applicable to other types of projects.

The FHWA process for assessment of visual impacts directs the reviewer to describe the visual characteristics of the project, the visual resources and viewers affected, the significance of the main visual issues, the effects of the project alternatives, and any mitigation measures. The primary method recommended for making the assessment is graphic, with pictures and/or renderings to present the potential project impacts as factually as possible and minimize the use of text to describe what one can otherwise see.

The critical step in analyzing the visual environment of a project is the identification of the limits of that visual environment. The process of identifying this visual environment is called "viewshed mapping." A "viewshed" is the surface area visible from a given viewpoint or a series of viewpoints; it is also the area from which that viewpoint or series of viewpoints may be seen (FHWA). When a project entails many alternatives or a substantial distance such that it has different potential impacts in different locations, the viewshed analysis is broken down further into more distinct assessment units and utilizes composite or overlapping viewshed analyses. This project involves multiple assessment units with composite analyses.

Consistent with the FHWA approach, this analysis was initiated by conducting visits to the project site and a review of aerial mapping to determine the relevant viewsheds to assess the potential impacts of the proposed development. Using the process in the manual several key positions were identified that represent a cross-section of views of the project site from the adjacent neighborhoods. Rather than simply choosing many random views, the locations were selected to include areas of high population (potentially affected by the project), critical viewpoints, landscape/topographic transitional points, views that are representative of the views in an area, and spaced to provide sufficient coverage. In addition to the standard FHWA approach, locations also included views from both public and private property. The locations selected for this analysis are represented on Figure 5.2-1, Viewshed Diagram.



Views:

1. Looking south-southeast from the top of 41st Street Overpass above the railroad track
2. East from Lowell Park
3. East from View Drive at 47th Street
4. Northeast from South 4th Avenue & Main Street
5. 36th & Oakes – Looking due east, northeast, and east-southeast
6. South 3rd Avenue below and north of the 41st Street Overpass – Looking north-northeast
7. 3863 Wetmore Avenue – Looking due east, northeast, and east-southeast
8. 1699 40th Street – Looking due east, northeast, and east-southeast

Notes:

1. Viewsheds shown in blue

Viewshed Diagram

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-1

Reference: Figure provided by Mithun Architects

5.2.2 Preparation of View Analysis

5.2.2.1 Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall

All alternatives on the north Landfill/Tire Fire and Eclipse Mill sites entail primarily commercial development on the landfill and multi-family residential and mixed use on the Eclipse Mill area. To analyze potential impacts on views from development on this portion of the project, four viewpoints were selected that represent the most inclusive view of the project from populated areas and illustrate the potential visual impact of the development from those selected viewpoints. It is important to note that the analyses for this area of the project were performed to assess an extreme development scenario to determine if impacts were identified. This assessment assumes a 100-foot-tall hotel structure and all the commercial buildings erected to a height of 65 feet. The parameters of the analyses are based on the maximum heights requested in the land use approvals, although it is highly unlikely that even a majority of the buildings on this portion of the project will be close to 65 feet. Rather than attempting to fix locations for the taller buildings in the analyses, the review presents an extremely conservative assessment. Further, by making the commercial buildings all the maximum height, it obviates the need to impute buildings for the Eclipse parcels since they would all be hidden by the commercial buildings on the Landfill/Tire Fire site and any impacts they would have would be less than what is presented.

5.2.2.2 Simpson Pad and South portion of Landfill Tire/Fire South of 41st

Of the three alternative development scenarios for the project, two have office uses for the entire Simpson Pad site (Alternatives 2, Options 1 and 2) while the Preferred Alternative (Alternative 1) is designed for residential uses. The visual impact of the three alternatives would be different. The office alternatives would have taller, more massive buildings spread across the site from north to south with surface parking lots or parking structures serving each building (see Figures 5.2-2 through 5.2-25).

Common to all three alternatives for the south Landfill/Tire Fire site are office uses in two buildings located immediately south of the 41st Street overpass and on the westernmost portion of the development. Parking for these buildings is on surface lots. These buildings are two to three stories in height with the heights ranging from approximately 38 feet to 50 feet above assumed new grades (estimated to be approximately 3 feet above existing grade). The topography of the site rises up to the north and east to support the 41st Street overpass. Directly adjacent to the west and across the railroad tracks from these two office buildings is the Acrowood industrial facility at the northernmost end of the Lowell neighborhood on Smith Avenue and 42nd Street. Due to the size of the existing industrial facility, views to the two office buildings on the south Landfill/Tire Fire site are obscured from the Lowell Neighborhood and locations farther west. The 41st Street overpass blocks views of the two office buildings from areas north of the development.

Although it is a more densely developed land use, the Preferred Alternative would have a lower and more varied roof profile across the Simpson Pad. The majority of the housing types are two stories with a maximum roof height of approximately 30 feet (estimated to be approximately 3 feet above existing grade). The office alternatives for the Simpson Pad are composed of buildings that are from two stories in Alternative 2 (Option 1) to five stories in Alternative 2 (Option 2). That translates to approximately 38 feet in height for the two-story office buildings in Alternative 2 (Option 1), and 77 feet in height for the five-story office buildings in Alternative 2 (Option 2). The parking structures proposed in Alternative 2 (Option 2) would be 35 feet and 45 feet in height. There is only a small elevation change across the site, which would have very little effect on the overall heights of the buildings or any differentiation of one building from another.

Looking south-southeast from the top of the 41st Street Overpass above the railroad tracks

Viewpoint 1

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-2

Reference: Photograph provided by Mithun Architects

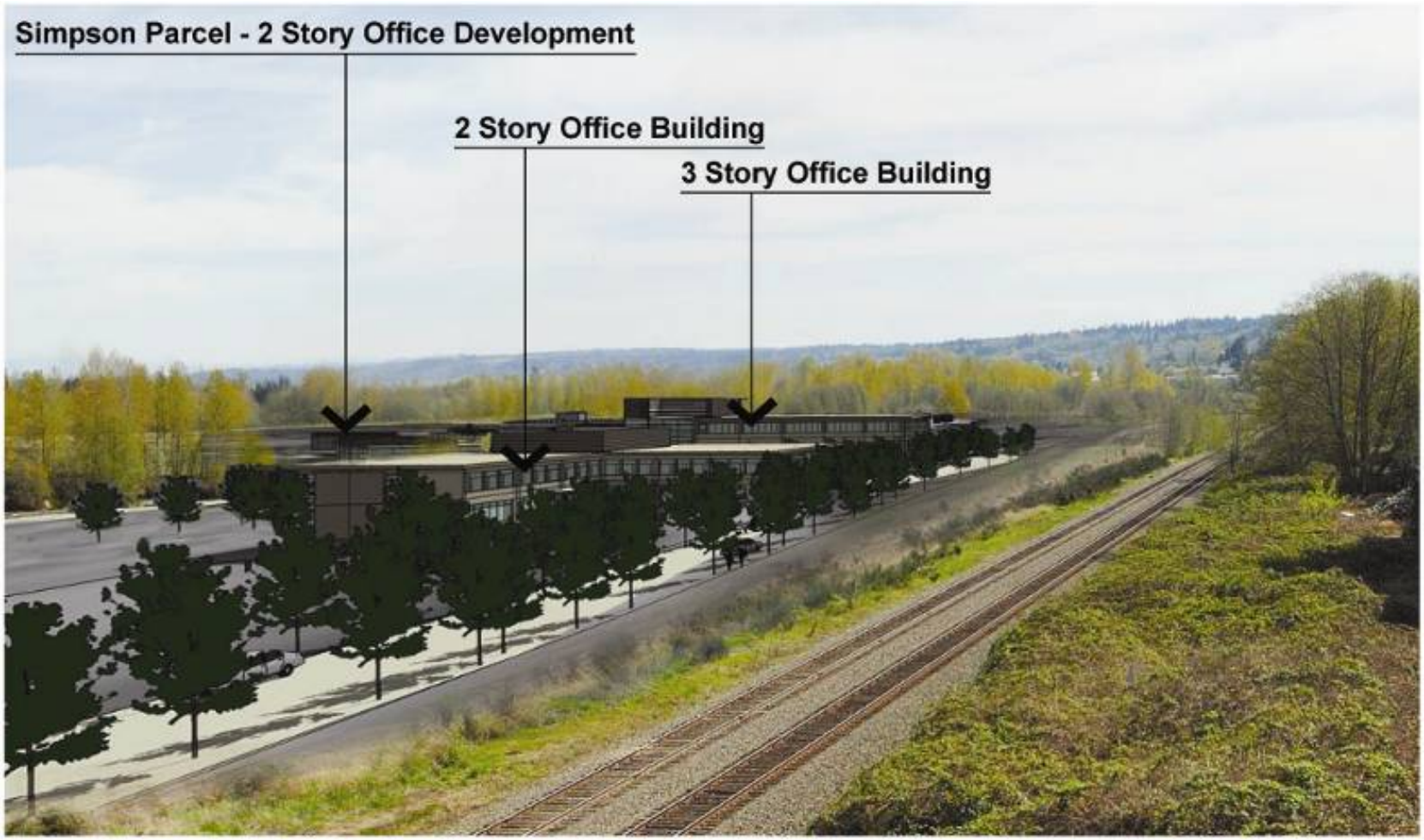
Looking south-southeast from the top of the 41st Street Overpass above the railroad tracks

Viewpoint 1
Alternative 1 (Conceptual Uses)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-3

Reference: Photograph and building representations provided by Mithun Architects



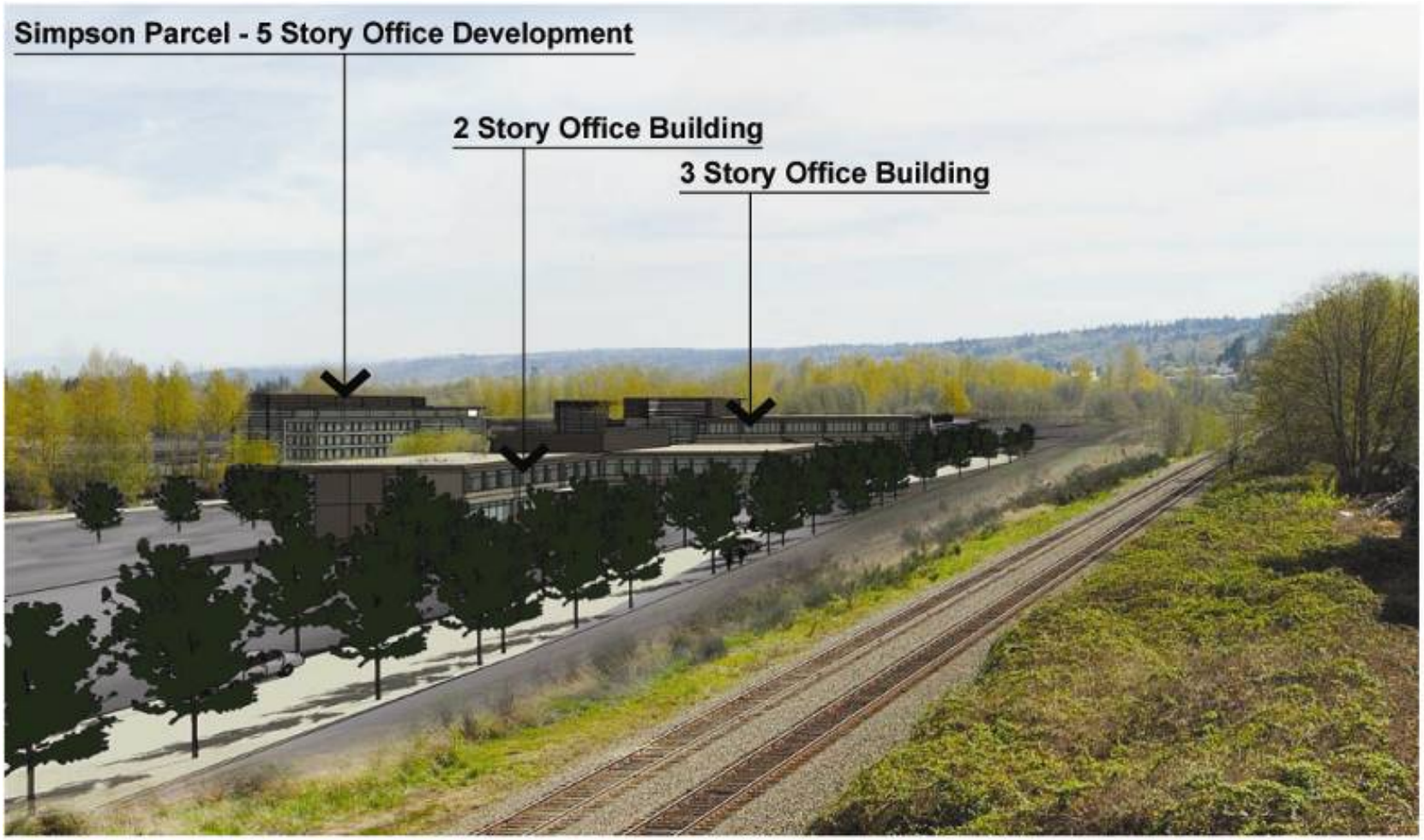
Looking south-southeast from the top of the 41st Street Overpass above the railroad tracks

Viewpoint 1
Alternative 2 (Option 1)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-4

Reference: Photograph and building representations provided by Mithun Architects



Looking south-southeast from the top of the 41st Street Overpass above the railroad tracks

Viewpoint 1
Alternative 2 (Option 2)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-5

Reference: Photograph and building representations provided by Mithun Architects

East from Lowell Park

Viewpoint 2

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-6

Reference: Photograph provided by Mithun Architects

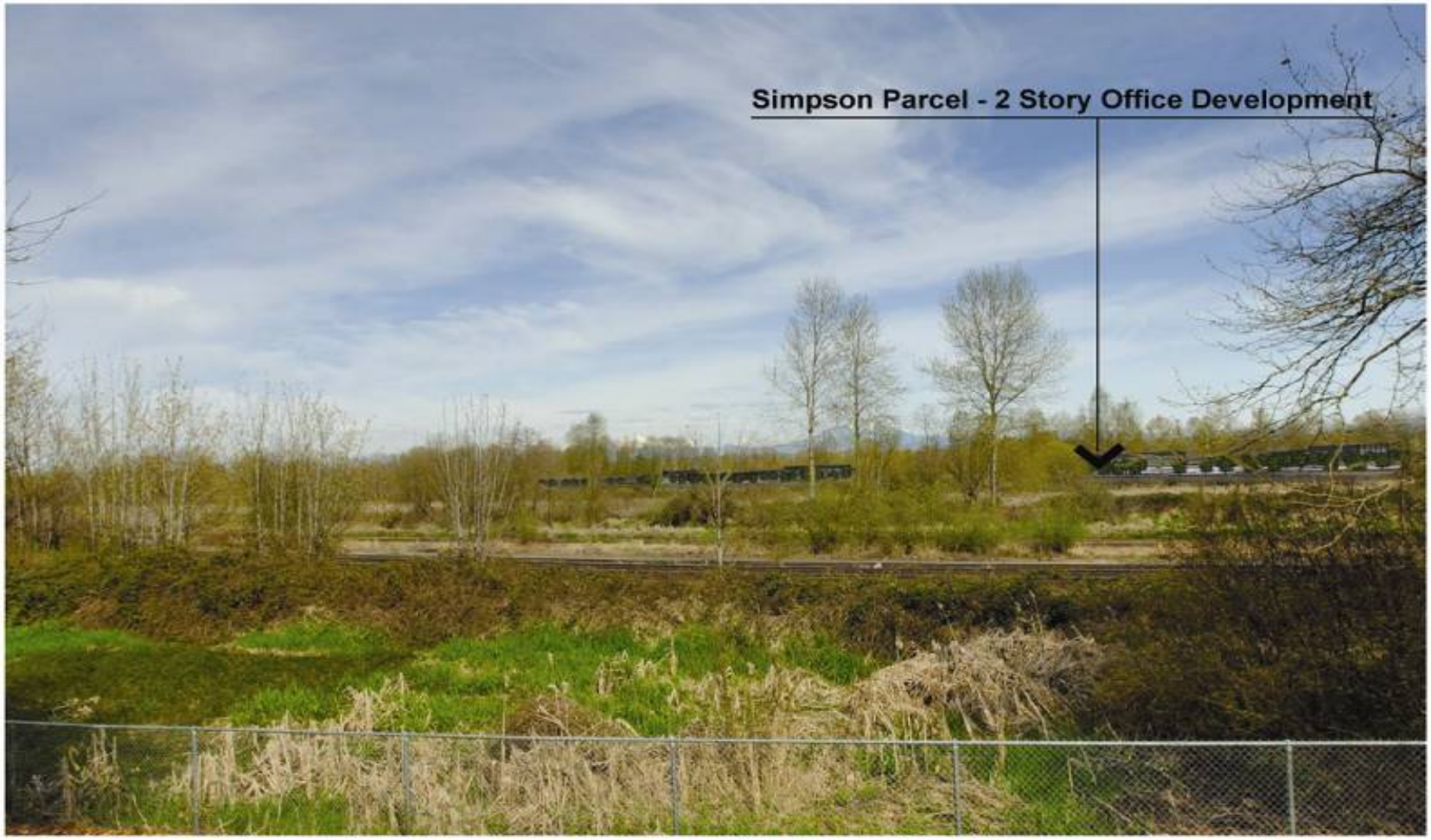
East from Lowell Park

Viewpoint 2
Alternative 1

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-7

Reference: Photograph and building representations provided by Mithun Architects



East from Lowell Park

Viewpoint 2
Alternative 2 (Option 1)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-8

Reference: Photograph and building representations provided by Mithun Architects

East from Lowell Park

Viewpoint 2
Alternative 2 (Option 2)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-9

Reference: Photograph and building representations provided by Mithun Architects

East from View Drive at 47th Street

Viewpoint 3

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-10

Reference: Photograph provided by Mithun Architects

East from View Drive at 47th Street

Viewpoint 3
Alternative 1

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-11

Reference: Photograph and building representations provided by Mithun Architects

East from View Drive at 47th Street

Viewpoint 3
Alternative 2 (Option 1)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-12

Reference: Photograph and building representations provided by Mithun Architects

East from View Drive at 47th Street

Viewpoint 3
Alternative 2 (Option 2)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-13

Reference: Photograph and building representations provided by Mithun Architects

Northeast from South 4th Avenue and Main Street

Viewpoint 4

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-14

Reference: Photograph provided by Mithun Architects

Northeast from South 4th Avenue and Main Street

Viewpoint 4
Alternative 1

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-15

Reference: Photograph and building representations provided by Mithun Architects

Northeast from South 4th Avenue at Main Street

Viewpoint 4
Alternative 2 (Option 2)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-16

Reference: Photograph and building representations provided by Mithun Architects

Northeast from South 4th Avenue at Main Street

Viewpoint 4
Alternative 2 (Option 1)

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-17

Reference: Photograph and building representations provided by Mithun Architects

36th Street & Oakes – Looking due east, northeast, and east-southeast

Viewpoint 5

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-18

Reference: Photograph provided by Mithun Architects

36th Street & Oakes – Looking due east, northeast, and east-southeast

Viewpoint 5
Composite

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-19

Reference: Photograph provided by Mithun Architects and building representations created by Gensler Architects

South 3rd Avenue below and north of the 41st Street Overpass – Looking north-northeast

Viewpoint 6

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-20

Reference: Photograph provided by Mithun Architects

South 3rd Avenue below and north of the 41st Street Overpass – Looking north-northeast

Viewpoint 6
Composite

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-21

Reference: Photograph provided by Mithun Architects and building representations created by Gensler Architects

3863 Wetmore Avenue – Looking due east, northeast, and east-southeast

Viewpoint 7

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-22

Reference: Photograph provided by Mithun Architects

3863 Wetmore Avenue – Looking due east, northeast, and east-southeast

Viewpoint 7
Composite

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-23

Reference: Photograph provided by Mithun Architects and building representations created by Gensler Architects

1699 40th Street – Looking due east, northeast, and east-southeast

Viewpoint 8

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-24

Reference: Photograph provided by Mithun Architects

1699 40th Street – Looking due east, northeast, and east-southeast

Viewpoint 8
Composite

Everett Riverfront Redevelopment
Everett, Washington

Figure 5.2-25

Reference: Photograph provided by Mithun Architects and building representations created by Gensler Architects

5.2.2.3 Development of Images for Analyses

Images of all three Alternatives for the Simpson Pad, alternatives for the south Landfill/Tire Fire site and a worst case model (as discussed above) of the southern area of the southern Landfill/Tire Fire and Eclipse Mill parcels were generated by building a computer model of each alternative development scenario and then superimposing an image of the model into photographs of the site taken from the viewshed positions indicated in the Viewshed Diagram located below. The models are based on reasonably accurate topographic information from readily available sources and inputting an additional 3 feet of fill onto the existing elevations. These images are accurate to-scale representations of the alternatives shown in the site context.

5.2.3 Existing Conditions / Affected Environment

5.2.3.1 Visual Quality

Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall

From this portion of the site, there are views of the adjacent wetlands and Snohomish River to the east and the Cascade Mountains beyond. Views to the north, west, and south of the site are limited due to mature trees and elevated roadways. Many of the views from off the site are littered with utility poles and utility lines crisscrossing throughout the view corridors and interrupting potential mountain vistas.

The populated areas in closest proximity to the site, those to the west, are characterized by random industrial uses with a series of unrelated parking areas and buildings. The dominant view from those areas looks beyond the site to the mountains. Because of the topography and intervening vegetation, the river is mostly obscured from those areas. There is presently what could be described best as a "keyhole" view of the river as it passes under the US-2 Bridge in the extreme northwest corner of View 6, as shown on Figure 5.2-1.

Simpson Pad and South portion of Landfill Tire/Fire South of 41st

There are many opportunities for views of the riverfront and the wetlands immediately adjacent to the Simpson Pad. Prominent views in the area include the nearby Lowell neighborhood, Lowell Park, and rural areas on the eastern banks of the Snohomish River. The Cascades will be visible in the distance from parts of the Simpson Pad as well as higher elevations above I-5 to the west of the site.

From the south Landfill/Tire Fire site, the BNSF mainline and the area to the west of the tracks are prominent in this view. The area west of the tracks below the Acrowood Industrial facility is overgrown with invasive blackberries, and a debris pile is visible. The Simpson Pad is visible in the distance, but dense vegetation prevents any view of the Snohomish River. A ridge to the southeast is visible in the distance, but there are no mountain views as can be found from other viewpoints.

Much of the area in the vicinity of the Simpson Pad also has views of the Snohomish River, the rural lands to the east of the site and the Cascade Mountains in the distance. Some areas, particularly the higher elevations west of I-5, also have views of other parcels of the Everett Riverfront Development to the north of the project site. Many views of the Simpson Pad itself and the south Landfill/Tire Fire site, particularly those from lower elevations below the level of I-5, are blocked by dense vegetation consisting of mature trees and residential landscaping, neighborhood housing and commercial development. Areas including Lowell Park and the neighborhood north of Lowell Park, on the western edge of the Simpson Pad that are at an elevation approximately equal to the Simpson Pad and the south Landfill/Tire Fire site have views toward the site that are partially blocked by fairly dense vegetation consisting of mature trees and underbrush along both sides of the railroad line and in wetland areas. Areas in the southern end of Lowell will also have limited views of the Simpson Pad and the south Landfill/Tire Fire site because of

their distance, elevation, and intervening mature vegetation in the wetland areas to the south of the Simpson Pad.

5.2.3.2 Visual Character

From an aesthetic perspective, the project area around the Landfill/Tire Fire area and extending into the Eclipse Mill area is blighted. The Landfill/Tire Fire site presently has an uneven surface (because of subsidence of the interred and decomposing wastes), spotty vegetation, mostly old and in one case a dilapidated building, unscreened outdoor storage and an overall haphazard and rundown appearance. This condition substantially detracts from the surroundings including the Snohomish River, associated natural areas, and the Cascade Mountains looming in the distance. The Simpson Pad is currently unoccupied and cleared of vegetation and structures. The south Landfill/Tire Fire site is also unoccupied and cleared of vegetation and structures (although a pump station for the landfill leachate system and fencing are visible).

5.2.3.3 Viewer Groups & Views

Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall

Because of the location and the topography of the project area, the project will have limited visibility from the surrounding community. Distance from the site, mature landscaping, and the relationship of the river to the site contribute to the lack of visible sightlines into the project site. Many of the views from off the site are littered with utility poles and utility lines crisscrossing throughout the view corridors and interrupting potential mountain vistas.

Section 5.2.1, Methodology, references key viewpoints associated with the primary viewer groups. The exhibits showing the impact of those viewpoints include the following.

- **Viewpoint 5 - 36th & Oakes, Looking due East, Northeast, and East-Southeast.** There is a view of the Cascade Mountains and foothills from this location. Those views, however, are of a limited quality because of the encroachment of existing small scale industrial and commercial facilities, parking lots, utility poles and lines and the freeway beyond. The development is barely visible from this location, with the hotel rising just above the freeway. Freeway signs rise above all portions of the project. No view would be affected in this area.
- **Viewpoint 6 - S. 3rd Ave below and north of the 41st Street Overpass, Looking north northeast**. This location has the broadest view of the proposed development on the Landfill/Tire Fire and Eclipse parcels from any off-site location. The distant mountains provide the most prominent visual resource in this viewpoint. There is a "keyhole" view of the river as it passes under the US-2 Bridge in the extreme northwest corner. Because the picture was taken in early spring prior to full leafing of deciduous trees in and around the area, this represents a view that is even more obscured from late spring to mid-fall, or more than half the year. Re-vegetation of the shoreline alone will likely remove the remaining vestiges of this restricted view. The foreground is a disorderly mix of littered open space, dirt parking lots, and disparate small industrial facilities. The site is visible mid range of the views.

  The taller buildings used in this worst case analysis will be visible throughout much of this landscape unit. The hotel, if built to its maximum height of 100 feet, would rise up and into a small area of the valley rim but still below the foothills to the east northeast. The taller commercial buildings across the site would rise to near the top of tree levels along the river, but would not rise above the view of the valley rim to the north and east. The fractional view of the

river under US 2 would likely be blocked by buildings, if it is not otherwise blocked by shoreline restoration vegetation.

- **Viewpoint 7 - 3863 Wetmore Avenue, Looking due East, Northeast, and East-Southeast.** The foothills and Cascade Mountains are the dominant features of the distant landscape in this view. The foreground is dominated by open areas and the fields in the Everett Memorial Stadium complex. Freeway slopes, vehicles on the freeway, utility poles and stadium lights (and stadium signs) dominate the middle portion of the view. The hotel and commercial buildings will be seen above the freeway but generally blend into the background which includes the valley rim and occasional buildings in the distance. There are no landscape features (such as hills, river, mountains) impacted by the worst case development scheme in this view.
- **Viewpoint 8 - 1699 40th Street, Looking due East, Northeast, and East-southeast**. The prominent view from the residential community is the distant vista with the Cascade Mountains as the dominant form. The foreground, with a diverse pattern composed of small residences, industrial and commercial buildings, part of the Everett Memorial Stadium complex and a variety of trees, obstructs views of the site. The hotel would be partially visible from this area and under the worst case the tops of some commercial buildings might be seen behind I-5 traffic.

Simpson Pad and South portion of Landfill Tire/Fire South of 41st

Viewer groups who could be potentially affected by development on the Simpson Pad or the south Landfill/Tire Fire parcel include residents of the Lowell Neighborhood, people traveling in vehicles on I-5, people cycling and walking on the path network through the wetland areas, people in vehicles traveling over the 41st Street overpass and residents living in the higher elevations on the west side of I-5.

- **Viewpoint 1 is looking south-southeast from the 41st St. Overpass above the railroad tracks**. n the foreground of each representation is the office development for the south Landfill/Tire Fire site that is the same for each action alternative. The development of the Simpson Site under the various alternatives is represented on the other images. The development on the Simpson Pad can be seen in the distance behind the south Landfill/Tire Fire site with intervening landscape between the two parcels. Under all of the alternatives no development rises above the vegetation that rims the Simpson Pad.
- **Viewpoint 2 looks East from Lowell Park**. This particular location is at the south end of Lowell Park. Development on the Simpson Site would be visible from limited locations in Lowell Park. The prominent view from this location is the BNSF mainline which rises above the adjacent land, and vegetation throughout the area. Mount Pilchuck is barely visible behind trees in this early spring photo-; it would be entirely obscured late spring through early fall. Other mountains presently are partially visible (again with the likelihood of being obscured during much of the year when the trees are leaved) and tree growth will likely eventually eliminate all of this already minimal mountain view. In the representations, mature trees obscure the proposed development from most locations within the park, although buildings are visible. The proposed developments all stay low enough to prevent any impact on the already obscured regional mountain views.
- **Viewpoint 3 looks East, from View Drive at 47th Street**. This viewpoint provides a view of the site from a dramatically different elevation than the others. This viewpoint is west and above I-5 so it looks over many of the elements that obscured views in the previous locations. The Cascade Mountains rise above the surrounding landscape to provide a prominent view for the residential community. Also in the distance behind the proposed project are the broad lower Snohomish Valley (mostly Ebey Island), the eastern valley rim and lower foothills. The foreground, with a

diverse pattern composed of small residences and a variety of trees, obstructs views of much of the project area. The Snohomish River, in this early spring picture, is entirely obstructed from view.

Under the various alternatives, the tallest office concept on the Simpson Pad is the most prominent introduction on the landscape. The taller buildings under that scenario would alter the view slightly introducing a more prominent urban view into the distant more rural landscape. The other alternatives, including the preferred alternative of residential uses on the Simpson Pad would also introduce more development in the view landscape, but would only occupy a small portion of the view.

- **Viewpoint 4 looks NE from S. 4th Avenue at Main Street**. This viewpoint is from the center of the Lowell neighborhood and is a good representation of the views from that area. The distant mountains are the predominant landform from this viewpoint. The foreground is the Lowell Neighborhood. In the middle ground the Simpson Site is mostly obscured by mature trees and landscaping. A small sliver of the Simpson Pad is visible between the trees. The Snohomish River is partially visible in a gap between trees.

  Under all of the development scenarios a portion of the buildings would be visible from the Lowell neighborhood. Even the taller office proposals, nevertheless, would be very minor additions to the landscape due to the existing neighborhood buildings, and most importantly, the dominant vegetation in and around wetlands and other areas that continue to obscure the majority of the Simpson Pad. Landscaping, especially under the residential development (since it would be applied to all parcels) would break this minor view up even more. The office buildings on the south Landfill/Tire Fire parcel would not be visible from this viewpoint because of the intervening vegetation.

5.2.3.4 Light, Glare and Shadow

Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall

Currently the limited facilities on the site results in minimal external lighting and combined with limited street lighting on the site resulting in very minimal light and glare. Field observation found that off-site lighting surrounding the site results in a substantial amount of light and glare west and north of the site, dwarfing any light that would likely come from the project. Unshielded street lights are dominant in all of the site view pictures demonstrating a large off-site source of light and glare. Security and other lights on commercial and industrial buildings also add to make this a highly lit area. Finally, during much of the year lights associated with activities at the Everett Memorial Stadium complex adds to the base lit environment surrounding this portion of the project. Mobile light sources in the area include traffic on I-5 and the surrounding street network.

Some form of light and glare from the addition of any development alternative on this part of the project will be unavoidable. While the off-site light and glare sources are already west and north of the site the additional impacts from the proposal can be controlled in the planned development to have minimal cumulative impact.

Simpson Pad and South portion of Landfill Tire/Fire South of 41st

Observations were also made of existing light sources coming from the site, and from locations overlooking this part of the proposed project. These areas include the Lowell Neighborhood, and areas east of I-5 along View Drive. The Simpson Pad has been cleared of vegetation and structures. Filling activities on the Simpson Pad over the years has limited the introduction of new vegetation. Similarly, capping of the landfill has limited vegetation to herbaceous species. Because of the absence of

development, the site appears dark during the nighttime hours. Roadway lighting associated with the 41st Street overpass produces some anthropogenic light and glare from pole-mounted semi-shielded lights.

Presently there are mobile illumination sources produced by vehicle lights traveling on the Lowell River Road, traffic in the distance traveling from Snohomish, and train traffic on the railroad line east of the site. A small amount of light from street lights and homes in the background provide spotty minor lighting in the landscape. There are little or no sources of reflected glare on the existing site because of its undeveloped condition.

The affected environment includes areas of the Lowell Neighborhood starting at the south end on Main Street and Fourth Avenue, in Lowell Park, and north to 3rd Avenue and 42nd Street. Other areas of the affected environment are: I-5 east of the site, and the residential neighborhood east of I-5 along Broadway and View Drive which overlook the project site. The railroad line passing on the eastern edge of the site would also be part of the affected environment.

5.2.4 Character of Light and Glare from Development on Landfill/Tire Fire-north of 41st) Eclipse Mill/Drywall

5.2.4.1 Construction

Lighting and glare generated from the proposed development would be from special construction related activities (temporary security lighting in equipment storage areas) during the late fall and winter dusk and dawn periods.

5.2.4.2 Operation

Potential sources of light on the site include stationary street lighting, parking lot lighting, illuminated business signs, security lighting at buildings, pedestrian lighting at public open spaces and walkways. Mobile sources of lighting include headlights of vehicles and bicycles in the project area. Reflections may occur on site from building fencing.

Daytime reflective glare may occur from sunlight reflected from reflective surfaces on the buildings. Factors influencing the amount of reflective solar glare and the effect of the glare include: cloud cover, time of day, building height, size and orientating of the façade, percent of reflective surfaces that are glazed or consist of specular material, reflectivity and shadowing of the glazing or other façade material, and potential intervening structures or landscape.

5.2.5 Character of Light and Glare from Development on Simpson Pad and South portion of Landfill Tire/Fire South of 41st

5.2.5.1 Construction

Lighting and glare generated from the proposed development would be from special construction related activities during the late fall and winter dusk and dawn periods.

5.2.5.2 Operation

Streetlights, outdoor lighting at residences, pedestrian walkways, vehicle headlights, and pole-mounted lights in surface parking lots would increase the light emanating from the site. Nighttime glare could increase primarily from residential outdoor lighting, office outdoor lighting, and vehicle headlights. A small amount of daytime glare could come from light reflecting off windows and other specular surfaces

on residences and office buildings. Factors influencing solar glare and its effect are weather, (for example, cloud cover); time of day; building height, width and orientation of the south and east facing facades; percent of the south and east facing facades that are glazed; reflectivity of the glass or specular surfaces; design relationship between the glazed and non-glazed portions of the façade; the color and texture of building materials that comprise the façade and roofs; and the proximity of intervening structures or landscaping.

The action alternatives will include design solutions, which will address each of the factors attributable to lighting, glare and their related effects, so that no impacts associated with either reflective solar glare or nighttime lighting glare will exist.

Some of the proposed action alternatives will cast shadows onto the nearby wetland areas. These shadows will be greatest during winter mornings and afternoons. Alternative 1 consists mainly of two-story residential development of a maximum of 30 feet in height. Shadows from the residential development will not fall on wetland areas. The office buildings in the northwest corner of the site will be located more than 100 feet from wetland areas and separated by a public two-lane road and their shadows are not expected to fall on wetland areas. The other two action alternatives include taller buildings and will have more shadowing from individual buildings, but because there are fewer buildings the shadowing will have a lower overall area across the site. Shadows from Alternatives 2 and 3 will fall on wetland areas and pedestrian trails to the east of the site during winter afternoons and late summer evenings.

5.2.6 Impacts Common to the "No Action" Alternative

Although there are no immediate visual impacts resulting from planned development in the no-action alternative, the site can be utilized for a variety of code compliant developments in the future. Proposed zoning is Waterfront Commercial which allows various types of commercial and mixed-use development with building heights to 35 feet, and in a PDO Zone it may be increased to 100 feet through a public review process.

5.2.7 Impacts Common to the "Action" Alternatives for Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall Site

5.2.7.1 Visual Character

Under all the action alternatives, the site's visual character would change from a disrupted, unorganized, and impacted landscape to a planned, mixed-use urban community. Draft Design Guidelines for the Mixed-Use development on this area of the project are provided for reference. The design will be a modernist expression of the northwest regional architectural style. This type of development commonly includes sloped roofs, wood construction for residences, mixed metal and concrete construction for commercial buildings and a naturalistic landscaping with native species. Consistent lighting, signage, and smaller open space landscapes such as walking paths and common areas will be incorporated throughout the project. The project will create a pedestrian friendly environment for retail and commercial uses within a series of infrastructure improvements that support the new development.

The meandering main street, paralleling the course of the river, provides the organizing element of the mixed-use development. This pedestrian oriented street is lined with one and two story commercial buildings with retail at the street level. Taller commercial building and a seven-story hotel border the central plaza and green that provides the public with open space and access and views toward the river. The public open space will include landscaped areas with planting, enhanced paving such as pavers or colored concrete at hardscaped areas, and public amenities. Larger scale one story retail buildings and

associated parking are located west of the main street. East of the main street, closer to the water, building scale is reduced by locating the town homes, with views of the river, along the wetland frontage. Amenities in the wetland area along the river include pedestrian paths, a bicycle trail, seating, boat ramps, and a boathouse.

5.2.7.2 Aesthetic Impact

The design of the mixed-use community will provide housing, retail, hotel, and commercial space in a pedestrian oriented urban environment that will increase the ability for the public to access and enjoy amenities along the river. The integrated development will result in a project with visual appeal, appropriate land use, and a strong relationship with the river. The vivid view of the mountains across the river remains dominant within the project area.

Views from across the river to the east are not impacted by the project. Those areas are minimally populated, distant from the site, and shielded by trees.

5.2.8 Impacts Common to the "No Action" Alternative for Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall Site

A master planned mixed-use redevelopment of the project area will not occur in the no-action alternative. The anticipated visual quality would potentially be unchanged for a protracted time period. Future improvements on the site might occur only on a limited, sporadic and piecemeal basis over a considerable time period. Under the no action alternative, the City of Everett will work out a redevelopment scenario for all the involved parcels. The develop plan will likely follow a long term and somewhat piecemeal approach. This type of development will lead to long term visual and aesthetic shifts in the vicinity of the project and less overall control over impacts when compared to a master planned development.

Improvements that are not part of the planned mixed use development would not be subject to any Action Alternative special architectural design requirements to improve their visual quality. They would also not be subject to any action alternative requirements to establish permanent view corridors. As a result, they may create additional adverse impacts for most viewer groups.

5.2.9 Cumulative Impacts for Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall Site

Overall changes to visual quality by all the action alternatives would be considered positive. The existing condition of herbaceous vegetation and lack of structure (built or natural) will be changed to include public and private amenities along a new commercial core area centered around the Snohomish river. Positive changes would enhance the perceived visual quality of the adjoining portions of the site and the populated areas with views into the site.

5.2.10 Impacts Common to the "Action" Alternatives for Simpson Pad and South portion of Landfill Tire/Fire South of 41st

5.2.10.1 Construction – Visual Quality

Construction on the project site will occur in phased developments (refer to Table 2.2-1 of Section 2.2). Activities related to the processes of earthwork, infrastructure placement, foundations, framing, finishing, etc. will be visible during working hours at various locations across the site more or less continuously for the duration of construction. Impacts from these activities will be dust, stockpiles of equipment and materials, movement of heavy equipment, and general construction activities. Given the cleared state of

the areas that will be developed, these construction views, other than equipment, will not vary dramatically from the present views.

5.2.10.2 Operation – Visual Character

The proposed action alternatives will result in changes to the visual character of the Simpson Pad from its current image of bare soils surrounded by low wetland vegetation and its previous image as a paper mill and associated wood products operations. The Preferred Alternative (see Section 2.3, Project Alternatives) will be a dense neighborhood residential development consisting mainly of two story houses, townhouses, cottages, and carriage houses along tree lined streets. Parks and public spaces are placed throughout the development (see Figure 2.3-1). Open space along the eastern edge overlooking the Snohomish River has been preserved, and wetland/open space areas are preserved and some will be enhanced/expanded north, east and south of the Simpson Pad.

The proposed action for the south Landfill/Tire Fire parcel will also result in a change in the visual character of that parcel as well from its current image of sparse vegetation. The proposed development will introduce buildings and parking areas with landscaping.

The proposed action alternatives will positively improve the visual character of the sites. Visual amenities such as landscaped parks and public spaces will be designed with street furniture and a mixture of hard and soft-scapes oriented toward outdoor activities and incorporating planting materials that are compatible with the wetland environment nearby. The tree-lined street system on the Simpson Pad has a reduced scale to promote traffic calming. Outdoor lighting will be selected which will direct and contain all light to areas within the site. All evidence of the site's former use as an industrial area will be removed and replaced with a pedestrian scaled neighborhood-oriented and connected to the river by a footpath network.

5.2.10.3 Viewer Groups and Views

The viewer groups affected by the development of this site are mainly the Lowell neighborhood community to the west of the site, people traveling in vehicles along I-5, and residences to the east of I-5 along View Drive and Broadway. Residents and visitors to the site, boaters on the Snohomish River and people using the path network to the east of the site will also have views into the site. It is likely that most people in those groups will find the visual character of the site improved over its previous development as an industrial area (and landfill) and vacant land. Residents of the new neighborhood community will have views of the Snohomish Riverfront and the Cascade Mountains beyond. Anyone driving or walking along the eastern edge of the site will have an unobstructed view of the river and mountains. A number of publicly accessible parks and open spaces are located throughout the community, some of which afford views of the river and mountains as well.

The limited height of the overall development in this area of the project preserves most of the same views of the river and mountains as the no action alternative. Vegetation associated with wetlands and lying between the development areas already obscure most direct views of the River. The analysis did not identify any existing views of the river. It is conceivable that a specific location in the Lowell Neighborhood that would be immediately adjacent to the site on its western edge might have views of the river that are impacted by the development, but such an impact would be extremely isolated and limited and was not detected in the analysis.

5.2.11 Cumulative Impacts for Simpson Pad and South portion of Landfill Tire/Fire South of 41st

Overall changes to visual quality by the action alternatives would be considered positive as described above for the other parcels included in the action alternative. Positive changes would enhance the perceived visual quality of the adjoining parts of the Everett Riverfront Development and neighborhoods west of I-5. No lighting, glare, or shadowing impacts are anticipated.

5.2.12 Mitigation

5.2.12.1 Visual Quality Landfill/Tire Fire-north of 41st Street and Eclipse Mill/Drywall Site

- Utilize Mixed Use Design criteria to guide the development on the project site.
- Provide a streetscape design treatment for all streets, intersections, and sidewalks within the project including street trees, planting areas, special paving, lighting, signage, walls, fences, railings, and street furnishings.
- Provide open spaces and plazas
- Provide and implement a unified landscaping, lighting, and signage plan.
- Provide a continuous, well designed pedestrian way and bike path at the River.
- Protect views by shielding of all major roof top mechanical equipment
- Provide high quality and distinctive architectural design for all project buildings and improvements.
- Provide additional landscape on site similar to the natural riparian environment.

5.2.12.2 Light and Glare Landfill/Tire Fire-north of 41st and Eclipse Mill/Drywall Site

Buildings will be designed to minimize off-site light and glare impacts including those on the river using such elements as:

- Landscape will provide screening at parking areas to minimize vehicle headlight impacts.
- Downcast lighting and shielded lighting will be utilized to minimize light spill.
- Limit heights of lighting in parking lots and streets.
- Building design will consider reflective materials and their impact to neighboring communities. Use of muting devices, construction materials and window sizes of larger structures will be incorporated to reduce glare.

5.2.12.3 Visual Quality Simpson Pad and South portion of Landfill Tire/Fire South of 41st)

The Preferred Alternative (Alternative 1) for the site is a neighborhood residential development that incorporates a number of strategies that will greatly improve the existing site's visual character and mitigate potential negative impacts to the site's visual quality.

Alternative 1 has been designed to create a walkable neighborhood that has a pedestrian scale and incorporates open spaces at street intersections and at the termination of streets. The east-west street grid is laid out to create views to the riverfront. Open spaces are also placed to maximize views from within the development to the riverfront and longer vistas to the Cascade Mountains. A major public park is a focal point of the development and creates an axial open space and a visual break in the overall

neighborhood planning. It allows longer views from within the neighborhood to the Snohomish River and beyond.

The street grid is made up of small blocks, facilitating walking and shortening the distance between intersections, making more opportunities for views down the streets. A system of primary streets and secondary alleys has been designed that takes parking off of the primary streets and allows access to garages from the alleys. A grand tree lined boulevard runs the length of the site in a north-south direction; opening up the center of the site for views in and out. The boulevard is punctuated by roundabouts at either end which once again provide open green space within the neighborhood and broaden the opportunities for views.

A unified lighting, landscape, signage, and public art plan will be incorporated into the development. Consistency of these features will support wayfinding through the neighborhood. There will be numerous opportunities for east-west pedestrian connections through the site which would ultimately lead to the network of pedestrian paths along the Snohomish River, within the associated wetland complex and connect to Rotary Park to the south.

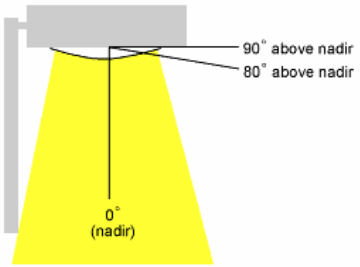
The architectural character of the development will be of high quality and will include diverse styles of homes. Although the majority of the residences in the development will be two stories in height, varied roof forms and configurations will be used to create visual interest and variety. Exterior colors will be primarily muted earth tones with brighter accent colors used for trim work and special features throughout the development.

5.2.12.4 Light, Glare and Shadows Simpson Pad and South portion of Landfill Tire/Fire South of 41st

The following design features have been incorporated into all of the action alternatives to mitigate negative impacts from lighting, glare and shadowing attributable to the development.

All buildings and residences have been placed on the site and oriented to minimize potential impacts from lighting, glare and shadowing of the most sensitive areas, including wetlands, public trails, and the Snohomish River.

Full cut-off fixtures will be used on site lighting fixtures to contain all site lighting onto the development property and minimize light to adjacent properties and affected environments. A full cut-off fixture has no direct uplight (no light emitted above horizontal). These fixtures are also required to reduce glare by limiting light intensity of the light from the lamp in the region of 80º to 90º (see Figure below for an example of high cut-off outdoor lighting fixture).



Source: Adapted from Bullough 2002
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On residential properties, vehicles will be parked in enclosed garages to the greatest extent possible to reduce the need for outdoor site lighting around parking areas and reducing the impact of vehicle headlight beams, thus reducing the glare associated with such areas.

Roofs and façade materials will be non-reflective to reduce potential glare impacts.

5.2.13 Applicable Guidelines and Commitments

A copy of the Everett Riverfront Master Mixed Use Development Design Guidelines is provided in Appendix G.

5.2.14 Unavoidable Adverse Impacts

No unavoidable adverse impacts are anticipated for visual quality or light, glare and shadows. However, a small portion of some open space views will be replaced with development. These areas are considered insignificant.

5.3 PARKS AND RECREATION, OPEN SPACE, AND PUBLIC ACCESS

This section describes existing parks and recreation facilities on and in the immediate vicinity of the project site; shoreline public access and recreation facility requirements of locally adopted plans and regulations; and how the project addresses those requirements. The impacts of construction and operation of proposed facilities on the natural environment are included in Chapter 4 of this document.

5.3.1 Methodology

Existing Comprehensive Plan elements, adopted plans, visions, regulations and guidelines, and maps relevant to the project site and area were reviewed. An assessment of how the project addresses those elements was developed.

Existing park and recreation facilities and trails were analyzed, and potential connections to existing facilities consistent with applicable plans were developed. Field review of existing facilities was conducted and appropriate City staff was consulted regarding existing plans and existing public resources.

5.3.2 Existing Conditions and Affected Environment

5.3.2.1 Summary of Existing Park and Recreation Facilities in the Immediate Vicinity

Lowell Park, located west of the project site at 4605 South 3rd Avenue, is a 10-acre park with amenities including picnic/barbeque facilities, tennis courts, playground, basketball, an off-leash dog area, baseball/ softball fields and restrooms.

Rotary Park, located south of the project site at 3503 Lowell Snohomish River Road, is an 11.3-acre park with a boat launch, fishing, picnic areas, trails and restrooms, among other amenities.

Lowell Riverfront Park, located at the south end of the project site, has picnic/barbeque facilities, fishing, riverfront viewpoints, and a 10-foot-wide multi-use bicycle/pedestrian riverfront trail. The trail from Rotary Park connects to the trailhead at this park, then extends approximately 1¾ miles to the north along the Snohomish River and along the south end of the Simpson Category 1 wetlands, terminating at the southwest corner of the wetlands. The location of the existing trail is shown on Figure 2.2-2.

WSDOT is currently constructing stormwater facilities integrated with wetlands at the south end of the Simpson site. The project includes a pedestrian connection from the Lowell neighborhood and trails that will connect into the Lowell Riverfront Park.

5.3.2.2 Summary of Parks, Recreation, Open Space, and Public Access Plans and Regulations

Comprehensive Plan Parks and Recreation Element

The overall goal of the Parks and Recreation element of the Comprehensive Plan is to "preserve, protect, and enhance parks, open spaces, recreation facilities and waterfront access in the City of Everett." This element includes policies to "Improve public access (pedestrian and bicycle) to Everett waterfront areas through the development of shoreline parks or access corridors as described in the Shoreline Public Access Plan" (Policy 9.2.1) and "provide recreational opportunities that encourage use of the city waterfront" (Policy 9.2.2). The element's action plan calls for the Parks Department to "Encourage public access along Everett waterfronts that provide a greater enjoyment of the water and link park facilities through a trail system," and to implement the "adopted Shoreline Public Access plan for the harbor and riverfront areas" (III. Action Plan for Parks Department, E. Public Access).

Shoreline Public Access Plan (SPAP)

The City's SPAP was adopted on May 21, 2003. Section 7 of the SPAP addresses the shoreline area of the City from Pacific Avenue southward to Rotary Park and includes a number of plan elements that apply to the project property. These include the following:

- "Relocation of the BNSF tracks to the west, away from the shoreline will facilitate development of a trail connecting to the existing Lowell Riverfront Trail that runs through the old Simpson Mill site." It is envisioned that portions of the Simpson Mill Site will be redeveloped.
- The SPAP includes provisions for extending the trail through the riverfront property, ultimately connecting to the north to Pacific Avenue. "The BNSF rail line will be realigned to the west, allowing construction of a trail from Pacific Avenue to the current terminus of the Lowell Riverfront Trail." Alternative alignments of the trail through the Eclipse Mill site are generally identified with the trail located on the shoreline for non-water--dependent use. Additionally, the Plan states that "the wetland just north of the old Simpson Mill site is an ecologically important resource and so the trail will follow its western margin. Limited nature trails and viewing areas may be added, subject to environmental conditions."
- The SPAP provides for a number of trail connections, including a 36th Street connection, connections across I-5 at the 41st Street overcrossing, and connections to the Lowell Community and the Interurban Trail.
- "Widened sidewalk and bicycle lanes should be added to 36th Street to provide a link to the Everett Station and, ultimately, to downtown Everett. A pedestrian/bicycle overcrossing should be provided over the railroad."
- The SPAP states that these plan elements should be given high priority for early implementation "because it will connect travelers from the Lowell community and southeast Snohomish County to the Everett Station and the Highway 2 bicycle lanes, providing an important commuter connection and making possible a number of recreational bicycle loop rides. East-west connections at 36th Street and across 41st Street, connecting to the Interurban Regional Trail, will also be critical to connect back to Everett's southern neighborhoods and the region to the south" (Implementation).

Pedestrian and Bicycle Linkages

See Section 2.4, Other Activities Adjacent to the Study Area, for descriptions of the 41st Street Overcrossing, Interurban Trail, Main Street Pedestrian Overcrossing, 36th Street Vicinity Overcrossing, Pacific Avenue Connection, and Additional Connection to the Lowell Community projects.

Figure 2.2-2 shows existing and proposed trail and public access improvements, including connections and potential connections to the neighborhood and to existing trail and pedestrian improvements.

Land Use Code Regulations for Provision of Public Access, Open Space and Recreation Facilities

The SMP requires that continuous public access and shoreline ecological restoration be provided along the shoreline when non-water uses are allowed. Public access must be generally consistent with the SPAP addressed earlier in this section and in section 33D.080 of the SMP. The SMP requires that the trail along the north side of the Simpson Pad be relocated outside of the required wetland buffer. The SMP also includes a myriad of design requirements for the public access improvements, such as signage and design to minimize impacts on environmentally sensitive areas.

The Multiple Family Development Standards in EMC 19.15 require that multi-family developments provide accessible on-site open space for the enjoyment of residents and on-site recreation facilities to partially provide for the recreational needs of residents. The amount of on-site open space is dependent upon the zone, and the amount of on-site recreation facilities is based upon a calculation using the projected population based on the number of bedrooms in the dwellings.

The Land Division regulations in EMC 19.28 also require on-site recreation facilities for subdivisions and the cluster alternative. In some cases, provision of a fee in lieu of on-site facilities is allowed.

City codes do not require provision of on-site recreation facilities for employees.

5.3.3 Impacts

5.3.3.1 Impacts Common to the "Action" Alternatives

Both of the action alternatives include the provision of open space, park and recreation improvements, and public access as an integral part of the proposed mixed-use project. Generally, public access improvements contemplated are similar for each of the action alternatives, and the impacts of the anticipated improvements are the same. The action alternatives will provide a substantial increase in public access improvements and amenities, including expanded shoreline access locations, bicycle and pedestrian trails, and opportunities for future connections to the Lowell Community, to the Everett Station area, and to the existing Riverfront Trail. The action alternatives will provide access to the Snohomish River and nature interpretive trail viewpoints. In a number of areas, the proposed public access and pedestrian/bicycle paths are located within wetland or shoreline buffers. Additionally, a section of the pedestrian/bicycle trail would run adjacent to Bigelow Creek and the stream restoration area adjacent to the removed railroad tracks between the Simpson Pad and the Landfill/Tire Fire site. Generally, the pedestrian/bicycle trails located within critical areas or buffers will be integrated with proposed restoration and/or critical area and buffer enhancements

5.3.3.2 Construction Impacts

During construction of the various phases of the proposed mixed-use development, construction activities and equipment operation will create some short-term noise, dust and vibration impacts to the existing park and public access improvements on or adjacent to the project site. There would be some short-term disruption of the use of the existing Riverfront Trail during construction. Short-term disruption would

likely be periodic as construction phases proceed, and may disrupt use of portions of the trail for several months.

Temporary interference with the use of the portion of the existing Riverfront Trail adjacent to and south of the Simpson Category 1 Wetlands will occur during construction on the Simpson Pad

Construction of a boathouse and/or docks would have shoreline and habitat impacts that are described in Section 4.5, Plant and Animal Resources.

The proposal includes temporary gravel trails on the shoreline and on the abandoned railroad ballast from 36th Street to the south end of the landfill site with 12-foot-wide hard surfaced trails through the Eclipse Mill site and on the north end of the Simpson pad, and bridges to reestablish or maintain hydrological connections.

5.3.3.3 Operation Impacts

Redevelopment of the site under any of the alternatives described in Section 2.3, Project Alternatives, will generate a substantial increase in demand for both on- and off-site parks and recreation facilities and programs. Impacts would be generated by new residents, employees of the commercial uses, and customers and visitors to the site. Under the no-action alternative, the demand would be postponed because the future user is not known.

Alternative 1 (Preferred Alternative)
Under the preferred alternative, the increased demand for parks and recreation facilities and programs would be generated by the addition of approximately 2,881 residents and 2,200 employees, and an increase of several thousand customers and visitors per day during peak site use.

The project will provide open space and recreation consistent with or exceeding the requirements in the City's Multiple Family standards and design guidelines, and will provide open space consistent with or exceeding the City's subdivision requirements for any proposed subdivision. Compliance with City Standards (EMC 19.15.050) includes numerous ways the standards can be achieved including provision of a minimum amount of recreation area per projected population with credit for providing specific recreation features such as docks. While the conceptual development plans are not of a scale to calculate exact areas, the combination of amenities provided and the amount of space available for recreation uses within the residential areas appear to be sufficient to meet the requirements and would be adjusted accordingly to ensure the standards are met.

Alternative 2 (Office use on Simpson Pad)
Under Alternative 2, the increased demand for on-site recreation, trails and shoreline public access would be generated by the addition of approximately 2,800 employees, and an increase of several thousand customers and visitors per day during peak site use. Public access would be provided consistent with SMP requirements. City codes do not require provision of on-site facilities for nonresidential uses.

Alternative 3 (No-Action Alternative)
As noted in Section 2.3, Project Alternatives, future development impacts of the no-action alternative would be similar to Alternative 2. Future development would be required to comply with the public access requirements of the SMP and provide on-site open space and recreation facilities for any residential uses proposed.

However, the extent of public access and park and open space amenities under Alternative 2 is speculative, and the provision of public access, trails and other park and open space amenities would be delayed. Bicycle and pedestrian connections from the project site to the Lowell Community, the Interurban trail, the Everett Station area, and ultimately the downtown area would also be delayed.

5.3.4 Mitigation Measures

Each of the action alternatives will provide an array of new amenities that will mitigate impacts of the increased demand for park, recreation, open space and public access generated by the proposal. The public amenities include: potential wetland enhancements; new shoreline access points; expanded pedestrian/bicycle paths and trails; nature interpretive viewpoints; new recreation, open space and park areas, and multi-use public spaces for outdoor gathering; and a new multi-purpose boat dock. Public amenities may be located in all areas of the project site.

As shown on Figure 2.2-2, the project will add approximately 1 mile of trails to the existing 1.2 miles of trails at Lowell Riverfront trail. The project site will include approximately 78 acres of natural areas, wetlands and future nature interpretive areas, and 3 acres within the Eclipse Mill area of the site will be set aside for a future park. Public park improvements will be included on the Simpson pad.

A new "Central Gathering Place" of at least 1½ acres would be integrated into the mixed-use commercial development on the Landfill/Tire Fire site. Amenities in the Central Gathering Place will include lighting, seating, drinking fountains, weather shelters, a water feature and way-finding signage. Restrooms will be provided for the public space of the Central Gathering Place and the park area on the Eclipse Mill site. Dock areas for small watercraft are planned as part of the Central Gathering Place and potentially the park on Eclipse site.

Public access improvements would include extension of the riverfront trail to the north, as well as additional trails associated with habitat enhancements and restoration. Oliver McMillan will replace the trail segment on the north side of the Simpson Pad, extend a gravel trail from the Simpson Pad to 36th Street and develop a new permanent trail along the development proposed on the Eclipse site. Conversion of the gravel trail to a permanent trail and other trail extensions and improvements will be done by the City based on plans and additional environmental review anticipated spring 2008. These improvements are intended to provide pedestrian and bicycle trails and access along the waterfront, and linkages to adjacent retail, commercial, wetland interpretive areas and open space.

The future City improvements described above related to the proposal will provide opportunities for public access and trail connections to the neighborhood and existing pedestrian and trail facilities including the 41st Street overcrossing, Interurban Trail, Main Street pedestrian overcrossing, 36th to 38th Street vicinity overcrossing and Pacific Avenue Connection described in Section 2.4, Other Activities Adjacent to the Study Area.

Internal access to the on-site parks, recreation and open space public amenities will be provided by public access pedestrian/bicycle trails and/or sidewalks on internal streets and roadways.

5.3.5 Additional Potential Mitigation Measures

The City's agreement with the Tulalip Tribes and the Watershed Conceptual Program discuss a cultural and nature interpretive center, which could be located on the South Simpson Site, potentially located adjacent to the WSDOT biofiltration and wetland enhancement area. The specific location and funding for the potential interpretive center has not been identified at this time. Additional SEPA environmental analysis would be provided by the City when a specific proposal is identified.

Signage along the river should be coordinated with the Snohomish County Water Trail System.

5.3.6 Applicable Regulations and Commitments

The following regulations will apply to each of the "action" alternatives and will help mitigate impacts on park and recreation facilities and impacts on shoreline public access:

- City of Everett Land Use Code and related development regulations, including the Zoning Code
- City of Everett Shoreline Master Program

5.4 HISTORICAL/CULTURAL RESOURCES

5.4.1 Introduction

The project area is sensitive for archaeological resources because of its location on the Snohomish River floodplain and the presence of Native American sites in the project vicinity.

SEPA analysis requires the identification of any places or objects on or adjacent to the project site that are listed in or eligible for national, state or local preservation registers, as well as sites of archaeological, scientific or cultural importance on or adjacent to the project site.

The National Historic Preservation Act (NHPA), as amended, and its implementing regulations (36 CFR Part 800) provide guidelines for assessment of project effects on potential cultural resources. Cultural resources generally must be at least 50 years old, be associated with an important historic context, possess integrity of physical characteristics and meet at least one of four criteria of significance.

Several Washington state laws specifically address archaeological sites and Native American burial grounds. The Archaeological Sites and Resources Act (RCW 27.53) prohibits knowingly excavating or disturbing prehistoric and historic archaeological sites on public or private land without a permit from the Washington Department of Archaeology and Historic Preservation (DAHP). The Indian Graves and Records Act (RCW 27.44) prohibits knowingly destroying American Indian graves and requires their inadvertent disturbance by construction or other activity to be followed by reinterment under supervision of the appropriate Indian tribe. RCW 42.56.300 states that records, maps, or other information identifying the location of archaeological sites are exempt from disclosure in order to avoid the looting or depredation of such sites.

5.4.2 Methodology

The assessment included archival research, examination of geotechnical boring data, a pedestrian survey and excavation of subsurface probes in areas sensitive for intact archaeological deposits. Archival research included an examination of the Washington State site inventory and records at the DAHP, and review of results of recent geotechnical work, ethnographic and historical accounts, previous cultural resources investigations, maps, photographs and environmental sources. A pedestrian survey covered portions of the South Simpson site, Simpson site and Riparian Corridor that were accessible to subsurface testing. A site reconnaissance[6] was conducted on the Landfill/Tire Fire and Eclipse Mill sites. Efforts were directed at identification of intact deposits below fill materials that may be affected by development of the project area.

[6] A site reconnaissance involves a general examination, as opposed to a detailed survey.

Prior to fieldwork, the extent of historical and modern disturbance in the project area was gauged by reviewing the following:

- Aerial maps of industrial development from 1938, 1955, 1967 and the 1970s;
- Sanborn Fire Insurance maps from 1892, 1893, 1902 and 1914;
- Kroll maps from 1957 and 1966;
- Historical photographs from 1880, 1892 and between 1898 and 1901;
- General Land Office map from 1869 (U.S. Surveyor General); and
- T-sheet from 1885 (U. S. Coast and Geodetic Survey)

In addition to maps and photographs were obtained from Wolken Consulting, the Everett and Seattle Public Libraries, and the University of Washington Special Collections. Results of geotechnical borings and trenches from relevant past and current work were also reviewed (McClintock 2006; Floyd and Snider, Inc. 1999; ERM-Northwest, Inc. 1990; Shannon & Wilson, Inc. 1990).

Northwest Archeological Associates, Inc. (NWAA) conducted a preliminary reconnaissance visit to the project area on January 23, 2007 (Northwest Archeological Associates, Inc. *Cultural Resources Assessment for the Everett Riverfront Master Plan and Redevelopment Project, Snohomish County, Washington* dated April 2007). The purpose of the visit was to review areas accessible to survey and subsurface testing, to examine subsurface exposures, including cutbanks along the Snohomish River at low tide, and to identify areas within the project site potentially undisturbed by previous industrial or landfill activities. This reconnaissance contributed to a model for areas of high potential for precontact[7] cultural materials. The South Simpson site, Riparian Corridor, Simpson pad and Eclipse Mill site were visited, and the Landfill/Tire Fire site was viewed from the western Riparian Corridor and 41st Street.

NWAA conducted fieldwork in the project area between February 1 and 6, 2007. A pedestrian survey was conducted along the shoreline from the South Simpson portion of the project site north following the paved shoreline trail and dirt trail in the eastern Riparian Corridor approximately 689 feet north of the Simpson Pad, and along the perimeter of the Simpson Pad. The South Simpson portion of the project site was surveyed around the WSDOT ponds, on the edges of wetlands and north along the western Riparian Corridor between the railroad tracks east of Lowell Park and the Simpson Pad north to the access gate from South 3rd Avenue. Trench exposures in the Simpson Pad were inspected, and the Eclipse Mill and Landfill/Tire Fire sites were visited. The surface extent of areas capped with fill in the Simpson Pad and Landfill/Tire Fire site and the stockpiling of fill material to add to the Eclipse Mill site were observed and photographs taken. Shovel probes were excavated in areas potentially not covered by fill and where ground disturbance is proposed in the project site. The purpose was to identify intact surfaces within the surrounding industrial fill, including the fill contact with intact native sediments, and to identify buried surfaces with potential for harboring archaeological deposits and in danger of disturbance.

Probes were excavated by shovel to 3.3 feet below surface when sediments allowed, and by auger to 7.5 feet below surface. Shovel probes were 1.3 feet in diameter, and auger probes were 0.3 feet in diameter, with excavated sediment passed through ¼-inch mesh screens. NWAA daily work records,

[7] There is a record of historical use of the land, but no imprint of pre-contact (Native American) activities, so a model for likely areas is created based on the landscape. Cutbanks along the river were among the only places to view intact sediments below the fill.

shovel probe forms and photo logs were completed in the field. A summary of probe stratigraphy and contents is compiled in the Northwest Archeological Associates, Inc. *Cultural Resources Assessment for the Everett Riverfront Master plan and Redevelopment Project, Snohomish County, Washington* dated April 2007 (please note that this cultural resources report is considered confidential and only available to government officials).

5.4.3 Tribal Coordination

NWAA contacted the Tulalip Tribes to request information regarding culturally sensitive areas within or near the project. NWAA sent a letter to Mr. Hank Gobin, Manager, Cultural Resources Department, Tulalip Tribes, on January 22, 2007. The letter invited the Tulalip Tribes to contact NWAA with any questions or concerns about cultural resources in or near the proposed project. No response has been received to date.

5.4.4 Fieldwork

5.4.4.1 Preliminary Reconnaissance

The reconnaissance verified that probes by hand would not extend to native sediments in the Landfill/Tire Fire site because of fill. Stockpiled materials overlie native ground in the Eclipse Mill site where construction activities are underway. No ground disturbance of native sediments is presently planned in either portion.

A visual estimate of 9 to 10 feet of fill on the Simpson Pad confirmed that probes by hand would not extend into native sediments. Fencing prevented entrance to wetland areas in the South Simpson site. Standing water, dense vegetation, a paved trail and landscaping obscured the ground surface east of the Simpson Pad. Standing water prohibited access to possible intact surfaces above the wetland west of the Simpson Pad adjacent to the railroad tracks, about 1.6 to 3.3 feet above the railroad grade.

A freshly slumped cutbank east of the northern half of the Simpson Pad exposed a faint organic layer observed during the preliminary field visit. Initially, the cutbank was thought to represent a sequence of intact deposits, but subsequent fieldwork and shovel probing showed that these sediments were part of recent alluvium deposited against the river bank since the bank had been armored beginning with the mill operations in the late nineteenth century. In the Riparian Corridor north of the WSDOT water treatment retaining ponds, approximately 30 centimeters (cm), or 1 foot, of loose sediment covers impenetrable native gravels. Disturbance associated with historical and modern land use appears to be minimal in this area. An artificial levee parallels the river east of the southern wetland and may offer protection to deposits west of the levee along the riverbank. A bend in the railroad grade just north of the South Simpson site at the dirt road heading east from Lowell Park may be an abandoned channel with a point bar. The hydrology of the area has been affected, and runoff is being trapped in the wetland area south of the Simpson site which has more water than the northern wetland. The levee west of the Simpson Pad and east of the railroad tracks consists of spread fill material that may be the edge of the remnants of the demolished Simpson mill.

5.4.4.2 Field Survey

Frosty, foggy and clear conditions occurred during the field survey. Vegetation consisted of wetland grasses, blackberries, alder, cattails, small conifers, snowberries and ferns. Shoreline stabilization along the riverbank consists of angular boulders, metal pipe and riprap. Exposed trenches in the Simpson Pad and the lower elevation of the wetland to the north further verified the extent of fill. Recent floods deposited debris along the shoreline and sand over the river bank in the South Simpson and eastern

Riparian Corridor portions of the project site. Paved areas and wetlands with tall grasses and standing water contributed to poor surface visibility, sand trails and dirt access roads allowed moderate visibility, and cutbank exposures provided good visibility. Standing water west and north of the Simpson Pad limited access to the Riparian Corridor.

NWAA excavated a total of 58 probes in the South Simpson site and the Riparian Corridor between January 2 and 6, 2007. Probes extended to an average depth of 4.4 feet below surface. Probes contained clean fill and fill material consisting of historical debris such as glass, brick and metal fragments, nails, concrete and wood. Probes encountered historical debris between 0 and 3.9 feet below surface. Fewer than one-fifth of the probes (specifically, 11 probes) identified modern debris (such as plastic and glass) and polyvinyl chloride (PVC) piping. A sprinkler line exists 1 foot below ground surface underneath the landscaped river shore in the Riparian Corridor. Slightly more than one-fourth of the probes (specifically, 16 probes) reached through the fill and into intact underlying natural deposits. Natural deposits consisted of alluvial deposits of silt and fine sands and in some cases a faint peat layer between 2.6 and 7.5 feet. Oxidation of sediments shows the effects of the fluctuating water table. Probes adjacent to the riverbank encountered historical alluvium from recent floods. NWAA recovered one prehistoric isolate, EV-ISO-07-01 (see below). NWAA updated site 45-SN-397, a historical debris scatter, which is not eligible for the National Register of Historic Places (NRHP), the Washington Heritage Register (WHR) or the Everett Register of Historic Places (ERHP) (see below).

EV-ISO-07-01

Prehistoric isolate EV-ISO-07-01 is a fine-grained basalt ground stone fragment measuring 8 cm by 5 cm by 3 cm with a concave flare at the posterior end, a possible maul mid-section. The object is smooth all around with traces of weathering. NWAA recovered the artifact approximately 16.4 feet west of the Snohomish River in the Riparian Corridor east of the northern half of the Simpson Pad. The artifact was found in an auger probe 4.6 feet below surface in iron oxidized silt interbedded with a thin sand layer less than 1 cm thick that also contained wood fragments. Probes were placed in cardinal directions at 16.4-foot intervals around the discovery point (Probe 27). No other archaeological materials or anthropic sediments were found in association, and the artifact was reburied in Probe 27.

45-SN-397 Site Update

A previous cultural resources investigation in the project area recorded site 45-SN-397 as a historical debris scatter consisting of the remains of the Everett Pulp and Paper Mill (McClintock, 2006). This previous effort mapped the boundaries north of borings and shovel probes that uncovered historical debris in the South Simpson site (McClintock, 2005). The update for this assessment extends the boundary of 45-SN-397 south of the Simpson Pad to the southern extent of current testing based on the results of borings, previous shovel probes, and historical maps and photographs. Historical debris south of and including the Simpson Pad is grouped as one scatter based on the extent of construction and demolition and the use of demolished materials to create the current landscape of the project area. The site includes debris from more than one mill, wharf remnants and rail alignments associated with mill operations. For instance, a concrete slab and two footings lay on the surface underneath blackberries and dense vegetation in the South Simpson site, and Shovel Probes 4, 5 and 6 just east of the levee opposite the paved shoreline trail hit dense impenetrable fill and were abandoned between 1 and 1.6 feet below surface. Numerous timber wharf remnants adjacent to the Snohomish River demarcate the eastern boundary and railroad tracks demarcate the western boundary of the site. The update concurs with previous studies (Atkinson-CH2MHill, 2005; McClintock, 2006:8) that the site does not meet criteria for listing in the NRHP, the WHR, or the ERHP.

5.4.4.3 Results

The results of fieldwork included an update of the previously recorded historical debris scatter (45-SN-397), determined not eligible for the NRHP based on the lack of integrity of physical characteristics necessary to convey significance (McClintock, 2005; 2006:8). In addition, one newly-discovered prehistoric isolate, EV-ISO-07-01, was identified and recorded. No other cultural resources were identified. Geotechnical boring and shovel probe data identified the contact between fill and the underlying floodplain alluvium. Historical and modern industrial developments have extensively modified the existing surface of the project area.

5.4.4.4 Stratigraphy

Generalized cross sections through the South Simpson site and Simpson Pad based on both boring and probe data show the relationship between fill thickness and the topography of the contact with the underlying intact alluvium. These cross sections in turn provide an indication of areas in which archaeological material may still be encountered by construction. Boring logs from geotechnical investigations at the Simpson site indicate that fill thickness varies from 9 feet to 14 feet below the Simpson Pad and along the berm just west of the construction access road west of the Simpson Pad (Floyd and Snider, Inc., 1999; ERM-Northwest, Inc., 1990; Shannon & Wilson, Inc., 1990). Borings and test trenches excavated in the South Simpson site also went through approximately 10 feet of clean fill (McClintock, 2006) before encountering intact interbedded alluvial sand and silt.

Borings B-27 and B-28, lying approximately 1,000 feet apart along the western margin of the Simpson Pad, both encountered peaty layers in intact alluvial sediments at 13.5 feet under the fill. Boring B-27 found numerous wood fragments and occasional logs in association with the peat, and in boring B-28 the peat was interbedded with alluvial silt. Peat was also found in intact alluvium at 10 feet in boring B-1, located southwest of boring B-27 near the base of the slope where the maintenance road enters the study area. Several other boring logs reported black organic-enriched silt and woody debris below the fill throughout the project area as well as occasional log or detrital wood at various depths. Most of these peats or organic layers rested atop alluvial fining-upward sequences of sediments, and in two cases (MW-1 and MW-2), a full fining-upward sequence, beginning with pebble-gravel at about 23 feet and ending at the former surface below the fill, was preserved.

Outside of the Simpson Pad, the sediment sequences exposed in the archaeological shovel probes were consistent with the geotechnical data. Fill ranged up to 5 feet thick, and contained historical debris and gravelly silt mixed with sand. Historical and recent flood deposits were also found immediately under the river bank in the east Riparian Corridor to 7.5 feet thick, the maximum depths of probes.

5.4.5 Existing Conditions/Affected Environment

The environmental setting of the project site informs our expectations for cultural resources that may be found in its vicinity. Archaeological evidence indicates that human occupation of the Pacific Northwest region occurred as early as 12,000 years before present (B.P.) or even earlier (Carlson, 1990; Carlson and Dalla Bona, 1996). Changing environmental conditions since the end of the Pleistocene Epoch, the last great Ice Age, have affected the kinds and distributions of resources used by people as well as the suitability of particular landforms for human occupation. Environmental changes have also had consequences for the archaeological record in terms of site preservation and visibility.

5.4.5.1 Geology and Geomorphology

The project site lies within a large north-south-oriented structural trough called the Puget Lowland, lying between the Cascade Range on the east and the Olympic Mountains on the west and extending south from southwestern British Columbia to the Willamette Valley of western Oregon (Orr and Orr, 1996). The geomorphology and surficial geology of the northern Puget Lowland is dominated by landforms and deposits associated with multiple Pleistocene glacial ice sheets that expanded southward from the mountains of southwestern British Columbia to the Strait of Juan de Fuca and the Puget Lowland (1.8 million to 10,000 years ago) (Booth and Goldstein, 1994; Clague et al., 1980).

During the last glaciation, known as the Fraser glaciation, the Puget lobe advanced south into the Puget Lowland. The Puget lobe reached its maximum southern extent near what is now the town of Centralia about 14,500 years B.P. (Kovanen and Slaymaker, 2004; Porter and Swanson, 1998). During the time of its maximum advance, the ice attained an average thickness of about 4,000 feet near Everett (Booth et al., 2004; Dethier et al., 1995). Global sea level was about 390 feet below the present sea level. After remaining stationary for about 1,000 years, the ice began to retreat rapidly northward, reaching northern Whidbey Island by about 12,850 years B.P. (Easterbrook, 2003; Porter and Swanson, 1998).

Depending on the thickness of the overlying ice, land that had been depressed under the weight of the glacier rebounded to elevations ranging between 197 and 262 feet. Once rebound commenced, uplift occurred rapidly, outdistancing the rate of global sea level rise until about 7,000 years ago in the vicinity of southern Whidbey Island. Since then, sea level rise has outpaced rebound uplift rates. Rising global sea level resulted in renewed deltaic sedimentation and growth of deltas in Puget Sound marine embayments such as the lower Snohomish River valleys (Crandell, 1963; Dragovich et al., 1994).

Processes of glaciation formed the landscape of Everett, an upland plain between Puget Sound and the Snohomish River (Newcomb, 1990:9). The Snohomish River begins at the confluence of the Skykomish and Snoqualmie Rivers and flows into Puget Sound north of Everett. In its lower reaches, the Snohomish River flows through a wide postglacial valley bounded by morainal deposits of the last glaciation. About 7.5 miles upstream from Possession Sound, the main channel splits into several tributaries, called "sloughs." Snohomish River delta channels and marshes appear to have not migrated laterally much since about A.D. 800. Aggradation rates based on radiocarbon dating are approximately 6.7 feet per 100 years. The 3.2 to 13.1 feet of strata exposed in the main river channel and slough cutbanks in the lower delta typically reveal deposits accumulated during the last 1,500 years (Bourgeois and Johnson, 2001).

The Puget Lowland is also a geologically active region that has experienced at least seven great earthquakes since 3,500 years B.P., including an event dated to 300 years B.P. (Atwater and Moore, 1992). Recent paleoseismic research on the Snohomish River delta found evidence for five episodes of continental plate movement based on three episodes of liquefaction, at least one abrupt subsidence event, and at least one tsunami, all occurring since about 1,200 years B.P. Localized abrupt surface lowering was generated by earthquake-induced compaction and liquefaction, with variable changes in elevation across the delta ranging between 1.6 and 2.5 feet (Bourgeois and Johnson, 2001).

Maps from 1884-1885 show that almost the entire Snohomish delta plain was wetland, totaling 15 square miles. This was the largest historical delta area in the Whidbey subbasin. Most of the wetland now has been converted to other land uses through diking, drainage ditches or landfill resulting in a remnant of about 3.9 square miles (Bortleson et al., 1980; Collins and Sheikh, 2005). The project area lies along an acutely curved outside bend of the mainstem Snohomish River just below a north-south-trending high ridge lying behind (west of) the community of Lowell. Historical maps indicate the area was covered by an extensive, low-lying floodplain wetland with at least one minor channel, possibly a tidal channel,

draining the floodplain. Unfortunately, the map scale of the historical maps is too small to determine in greater detail surface characteristics of the floodplain, such as the existence of other tidal channels, and historical and modern land use has completely obscured surface traces of the original surface.

5.4.5.2 Flora and Fauna

The project site is a wetland environment located in the Lower Snohomish River Estuary Delta. Estuaries provide a variety of resources that attracted people in the past. People procured clams and waterfowl from the same locations they harvested and processed salmon. Various berries including salal were picked and dried, and tule and cattail leaves were used for mat-making. Stinging nettle provided fiber for cordage and nets, and several estuarine roots were harvested, such as springbank clover, rhizomes, Pacific silverweed and northern rice-root (Deur and Turner, 2005). The current vegetation includes a wide range of plant species, including cattail, willow, dogwood, cottonwood and invasive species of reed canarygrass, bittersweet nightshade and Himalayan blackberries.

Prior to extensive historical period settlement, the Puget Lowland and Cascade foothills were populated by numerous large and small mammals, fish and birds. Beaver, muskrat, river otter, skunk, coyote, red fox and weasel were common in riparian woodlands, sloughs and wetlands (Larrison, 1967). Deer, elk, black bear, bobcat, rabbit, squirrel and chipmunk were found in the uplands as well as the valleys. Ducks, geese, swans and other migratory and resident waterfowl occupied the lower river and delta seasonally or year-round, in saltwater bays, lakes, sloughs and river deltas. All five species of salmon native to the Northwest spawned in the Snohomish River, along with steelhead. Other anadromous fish found in the Snohomish River include sea-run cutthroat, Dolly Varden, sturgeon and eulachon. Marine fish like herring, sole, flounder, dogfish, rockfish, cod and lingcod usually spend at least one stage of their life cycle in estuaries. Species of fish succeeded one another within the tidal reach. Mussel, clam, cockle, oyster, barnacle, sea urchin, chiton and crab are available in various intertidal environments. Marine mammals, such as harbor seal, sea lion, harbor porpoise, orca and gray whale, also frequented nearby Possession Sound on a seasonal or year-round basis.

5.4.6 Cultural Setting

5.4.6.1 Prehistory

The prehistory of the project site and the surrounding Puget Sound region remains poorly understood. Sites dating before 5,000 years B.P. are rare along the Puget Sound shoreline, probably because of several factors that include poor preservation conditions, submersion by sea level rise, and differences in the distributions of intertidal and marine resources. The project site lies on a floodplain, a landform that represents the youngest surfaces locally available for precontact cultural materials and also one of the most geologically dynamic environments. Deposits have been accumulating in the river valleys through the Holocene Epoch, rapidly burying old surfaces and creating new ones.

A small number of poorly dated archaeological sites and surface finds attest to the presence of people in coastal western Washington by at least 12,000 years B.P. (Carlson, 1990; Matson and Coupland, 1995). Several fluted Clovis points, characteristic of this time period referred to as the Paleoindian period, have been found in the Puget Sound region (Meltzer and Dunnell, 1987).

In western Washington, early to mid-Holocene sites (approximately 8,000 to 5,000 years B.P.) are attributed to the Olcott Phase by archaeologists (see discussion in Morgan, 1999). The Olcott type site is located in Snohomish County on the hillside above the South Fork of the Stillaguamish River (Kidd, 1964). Olcott sites are characterized by upland settings on glacial till, with assemblages of highly

weathered lithic artifacts of volcanic materials like basalt and dacite dominated by cobble spalls, scrapers, flake tools, blade cores, finished knife blades, and large stemmed and willow-leaf-shaped points (Carlson, 1990; Nelson, 1990). The sites are often found away from tidal areas despite their general proximity to the coast, and lack structural features and animal remains indicating subsistence and settlement patterns.

After about 5,000 years B.P., larger populations that were organized in more complex ways exploited a wide range of locally available resources, including large and small mammals, shellfish, salmon and other fish, berries, roots and bulbs, with an increasing emphasis on salmon over time (Blukis Onat, 1987; Fladmark, 1982). People in the foothills had more access to mountain highlands, while people living further downstream took advantage of estuaries and coastal resources (Blukis Onat, 1988; Mierendorf, 1986). Flaked stone varies in style and material, microblades and cores are found, and basalt projectile points are prevalent. Ground stone implements are added to the assemblages of both coastal and inland sites. Bone and antler tools, ground shell, and toggling harpoons indicate marine mammal hunting. Shell middens generally occur after 4,000 years B.P. Marine-oriented cultures on the coast evidence full-scale development, and inland hunting, gathering and riverine fishing traditions as represented in the ethnographic record are apparent after about 2,500 years B.P. The archaeological record of this latter period is characterized by large semi-sedentary populations, and utilization of a broad range of plant, animal and marine resources, with an emphasis on salmon. There is artifactual evidence for the development of complex and diversified fishing and sea-mammal hunting technology, large-scale woodworking, including plank houses, semi-sedentary villages, art, the importation of exotic goods, and a wide variety of ground and chipped stone and bone artifacts (Blukis Onat, 1987; Fladmark, 1982; Nelson, 1990).

The time of initial Euroamerican contact in the late eighteenth century led to drastic changes in Native American populations and community structures, primarily caused by disease pandemics (Boyd, 1998; Campbell, 1989). By the time ethnographers began work, a century or more had passed and the cultures they described differed in ways from precontact cultures.

5.4.6.2 Ethnography and Ethnohistory

The project site lies within the traditional territory of the Snohomish Indians, who occupied the Snohomish River watershed from its mouth to the present-day City of Monroe and the southern parts of Camano and Whidbey Islands (Tweddell, 1974; Ruby and Brown, 1986). Four Snohomish winter villages were located at the mouth of the Snohomish River. Large seasonal villages were also located upriver at present-day Snohomish and Monroe. The Snohomish living downriver from the mouth of the Pilchuck River relied primarily on marine resources, while those above it focused on riverine and terrestrial resources.

The Snohomish harvested shellfish, halibut, herring, smelt, eulachon, flounder, seal and salmon from littoral locations. The Snohomish River was used for traveling to upriver fishing and gathering places, and the Snohomish employed a variety of traps, weirs and nets to acquire salmon from the Snohomish River and its tributaries. Seasonal and temporary camps were usually built at the large fish traps, and people traveled in the spring, summer and autumn to fish, hunt, dig clams and pick berries.

Snohomish population size was severely reduced around 200 years ago by epidemic diseases, including smallpox, carried by the Euroamericans and by neighboring tribes who had contact with them (Boyd, 1990). In 1855, Governor Issac Stevens negotiated a treaty with the Snohomish, Skykomish, Snoqualmie and Stillaguamish and other groups at Point Elliott near present-day Mulkilteo. The treaty provided that traditional territory was relinquished in return for fishing, hunting and gathering rights, money, and non-monetary payments of education and health care, and assigned bands to a small reservation west of

Marysville (Governor's Office of Indian Affairs, 2001). The boundaries of the Tulalip Indian Reservation were defined in 1873, and lands were allotted between 1883 and 1909 (Ruby and Brown, 1992; Lane, 1975:16).

The village of *He'bolb* existed just south of the mouth of the Snohomish River at Preston Point (Waterman, 2001:338). Other Snohomish villages in the early historical period were at Priest Point, Whidbey Island, Snohomish and Monroe. A place name, *Tcts!adi*, meaning "something sharp sticking out" was recorded for the promontory projecting from the inside bend of the Snohomish River on the right bank opposite the southern end of the project site (Waterman, 2001:338, and Map 10.2). This place name coincides with the location of previously recorded archaeological site 45-SN-41. A place name upstream from Lowell where Ebey Slough leaves the Snohomish River is called *HwEq^{w}qw1Lqed*, "head of something moving about," probably indicating that the channel of this slough changed its position from time to time (Waterman, 2001:338 and Map 10.2).

The town site of Lowell was referred to as "Chi-cha-dee-a" by local Snohomish Indians (Berry, 1985:2). A trail extended from just west of the Snohomish River at Lowell to Mukilteo, mapped as early as 1866 (Post Office Department 1896). A Native American burial was found by A.E. Prudden in 1892 at a house on the corner of Third Street and Main in Lowell, 650 feet west of the project site, substantiating a possible burial ground and camps or villages in the vicinity.

5.4.6.3 History

The first non-native settler arrived in present-day Everett in 1862 (Whitfield, 1926:306). Prior to the arrival of the railroad, logging was the primary activity in the project vicinity. At least one logging camp was midway between present-day Everett and Lowell in 1865 (Whitfield, 1926:308). Prior to 1879, about 14 people held land on the Everett peninsula, and a fluctuating population of men was employed in logging camps (Whitfield, 1926:308). An 1884 map shows a cleared area in the South Simpson, eastern Riparian Corridor and Simpson site portions of the project site.

E.D. Smith set up the first logging operations on the Snohomish River, and established the town of Lowell in 1863 (Berry, 1985). Smith's endeavors laid the foundation for industrial development in the project area. Smith's first house was built in 1874 near the intersection of South 1st Avenue and Lenora Street and was occupied for 25 years until the first railroad tracks were laid down. Smith built the Lowell Hotel between Zillah Street and Everett Street. Smith's sawmill was built at the end of 1880s just south of the South Simpson site. At Zillah Street, the force of the water current at the bend in the river would keep log booms against the bank. Smith built a paper mill in 1891 and sold a large portion of his land to the Everett Land Company during the boom of 1891-92 (Berry, 1985).

Railroad magnate James J. Hill proposed Everett as the terminus of the Great Northern transcontinental railroad in the late 1880s, causing land speculation in the Everett vicinity to escalate. Investor John D. Rockefeller began buying land around Everett, drawing people to the area. Rail construction in Snohomish County added up to more than $10 million between 1888 and 1893, followed by a halt in economic growth caused by two factors. Everett lost its potential as a rail port city when the railroad terminus was routed to Seattle, and the Panic of 1893 hit. Conditions improved, and lumber mills were back in operation by 1895 (Berry, 1985; Baker, 1967). The purchase of timber holdings by Frederick Weyerhaeuser from the land grant to the Northern Pacific Railroad spurred a wave of capitalist development. One such speculative group of investors was the Everett Land Company, who designed an industrial city based on lumber, mining, manufacturing, railroads and smelting to be serviced by the new railroads (Berry, 1985:29). The Everett Land Company incorporated in the early 1890s and Everett, the

"City of Smokestacks," was incorporated in 1893, emerging as a major shingle manufacturing and lumber center by the early 1900s (Clark, 1970; Patten, 1900:17).

Sanborn maps (1892, 1893) show early development of the Snohomish River waterfront. An orchard, sheds, a coop, a wharf, a boat house, a bridge over the Great Northern Railroad and an old store house are depicted north of Zillah Street in the South Simpson portion of the project site. Three railroad tracks provided transportation for mill products to Lowell prior to the Great Northern, which first appear on the 1893 Sanborn map. The extension of the Great Northern Railroad to Puget Sound ran along 1st Avenue on the west side of the paper mill. The Everett and Monte Cristo Railroad was completed late in 1893 and covered four miles from Lowell on the east side of the paper mill to the end of the peninsula (Patten, 1900:2). The Everett and Monte Cristo formed the connecting link between two portions of the Great Northern. The Northern Pacific took over the Everett and Monte Cristo line in 1899.

The following is a chronology of industrial development and expansion in the southern half of the project site, east of the BNSF railroad to the Snohomish River shoreline from Zillah Street north to 42nd Street:

- 1891 Puget Sound Pulp and Paper Mill (PSP&P Mill) built
- 1902 PSP&P Mill becomes the Everett Pulp and Paper Mill (EP&P Mill)
- 1911 EP&P Mill becomes the Everett Pulp and Paper Company
- 1912 Walton Lumber Company formed
- 1924 Walton Veneer Company began production
- 1951 Simpson Logging Company buys Everett Pulp and Paper Company
- 1967 Simpson Lee Paper Company buys Walton Veneer Company
- 1972 Simpson Mill closed

Puget Sound Pulp and Paper Mill

The PSP&P Mill was built between 1891 and 1892 along the Snohomish River in the South Simpson portion of the project site. The PSP&P Mill was owned by E.D. Smith and Henry Hewitt and managed by William Howarth and A. H. B. Jordan after the depression of 1893, and it became one of Everett's largest enterprises. The mill's name changed to the Everett Pulp and Paper Mill in 1902 when it was bought by William Howarth. The soda or alkali process was used to manufacture paper from local woods consisting of spruce, hemlock, fir and cottonwood (Patten, 1900:25). It became the Everett Pulp and Paper Company in 1911. The mill was sold in 1951 and thereafter known as the Everett Division of the Simpson Logging Company. The mill was closed in 1972 for environmental concerns related to sulfur compounds, and was dismantled and demolished shortly thereafter. Clean dirt was dredged from the Snohomish River in the mid-1970s, and 9 to 12 feet of fill was placed on the Simpson Pad (Salo, 1979; Mark Wolken, personal communication 2007). The site of the Everett Pulp and Paper Mill was recorded to the state archaeological site inventory as 45-SN-397 in 2005 (McClintock, 2005).

Walton Lumber Company

The Walton Lumber Company bought a bankrupt mill on the Snohomish riverfront in 1912. The Walton Lumber Company is depicted on the 1914 Sanborn map and 1957 Kroll map north of the Everett Pulp and Paper Company in the Simpson site and Riparian Corridor portions of the project site. Walton Lumber expanded and broke ground for the Walton Veneer Company in 1923, which started production in July 1924. Production at the Walton sawmill utilized a log lift on the Snohomish River, and a loading track connected to the Great Northern, Northern Pacific and Milwaukee railroads (Plywood Pioneers Association, 1971; Kroll Map Company, Inc., 1957, 1966; Baker, 1967:9). The buildings were sold to the

Simpson Lee Paper Company in 1967, and the property eventually became a dry land log-sorting area. The U.S. Army Corps of Engineers filled the Simpson Pad with 700,000 cubic yards of river sediments between 1979 and 1980. The City added 200,000 cubic yards of fill to the Simpson site between 2000 and 2001 (City of Everett, 2004).

Eclipse Mill/Drywall Site

In the Eclipse Mill portion of the project site, H.O. Sieffert and Company's Shingle Mill was between Pacific Avenue and 32nd Street, east of the Northern Pacific and Monte Cristo line and north of the Eclipse Mill. Just south of 32nd Street, Gould, Keen and Wright produced shingles beginning in 1899 until W.I. Carpenter and H.W. Stuchell purchased the shingle mill in 1903 and built the Eclipse Lumber Company Saw, Shingle and Planing Mill (Taylor, 2002; Baker, 1967:7, 19). Stuchell's sons continued the business and renamed it the Eclipse Lumber Company, Inc. in 1948. A fire destroyed the mill in 1962, leaving only the water tank and office, although the company continued buying and selling timber until 1973 (Taylor, 2002). This area was filled with clean soil from an I-5 construction project (Mark Wolken, personal communication 2007).

Landfill/Tire Fire

The Milwaukee Railroad planned a terminal for the Landfill/Tire Fire portion of the project site, but instead the City of Everett used it as a landfill, established in 1917 and used as Everett's primary municipal and commercial solid waste disposal location between the 1950s until 1966 (Washington State Department of Health, 2000). The City's landfill was closed in 1974, capped with a 12-inch layer of clay, graded, and in 1977 leased to Rubber Resources, Inc., for a tire dump. Two fires burned in the dump between 1983 and 1985, including the famous Everett tire fire that broke out on September 24, 1984, and burned for over 6 months (Muhlstein, 1984, cited in Robinson, 1989:16; Washington State Department of Health, 2000). Use of the tire dump ceased because of health concerns from zinc emitted from the burning tires. Remediation efforts include the addition of capping material, regrading, removal and redeposit of tire fire ash, and the addition of four feet of clean soil (Washington State Department of Health, 2000). A total of 8 to 10 feet of fill has been placed on the landfill atop ground-up tires and wood (Mark Wolken, personal comm. 2007).

5.4.7 Previous Cultural Resources Investigations

A record search at the DAHP indicated that 19 cultural resource investigations have been completed within 1 mile of the project site. Table 5.4-1 summarizes these investigations.

Table 5.4-1. Previous Cultural Resources Investigations Within 1 Mile of the Project Area.

Author	Date	Project	Relation to Project	Results
Dunnell and Fuller	1975	An Archaeological Survey of Everett Harbor and the Lower Snohomish Estuary-Delta	Within project site	Nine new and one updated prehistoric sites, R-1 in project area
Salo	1979	Cultural Resources Reconnaissance for Maintenance Dredging, Upper Snohomish River Navigation Channel and Settling Basin, Everett, Washington	Within project site	No cultural resources identified
Robinson	1989	A Cultural Resources Survey of Alternative Sites for an Everett Park and Ride Lot	Within project site	No cultural resources identified

Author	Date	Project	Relation to Project	Results
Robinson	1990	A Cultural Resources Survey of SR 5 Everett Park and Ride Preliminary Site No. 8, Snohomish County, Washington	325 feet west	No cultural resources identified
Miss and Campbell	1991	Prehistoric Cultural Resources of Snohomish County, Washington	Snohomish County	33 of 98 prehistoric sites relocated, one new site recorded, none in project site
Sullivan	1995	Swalwell Neighborhood Survey Final Report, Everett, Washington	1,500 feet northwest	39 historic structures recommended as contributing to a Swalwell Historic District
Demuth	1998	Historic, Cultural, and Archaeological Resources Assessment for Everett-to-Seattle Commuter Rail Commuter Project	Adjacent	Inventory of 16 historic and cultural resources between Pacific Ave and 36th Street
Shong and Juell	2002	Cultural Resources Inventory for the City of Everett's Water Transmission Pipeline Replacement Project- Phase 5.	820 feet east	No cultural resources identified
Juell	2002	Cultural Resources Monitoring and Discovery Plan for the City of Everett's Water Transmission Pipeline No. 2 and 3 Replacement Project- Phase 5.	820 feet east	N/A
Shong	2002	Monitoring Results for the Everett Water Pipeline No. 2 and 3 Replacement Project- Phase 5	820 feet east	No cultural resources identified
Juell	2003a	A Heritage Resources Assessment of the 41st Street Overcrossing and Railroad Track Removal and Upgrade Projects	Within project site	No cultural resources identified
Juell	2003b	Cultural Resources Assessment for the City of Everett's Water Transmission Pipeline Replacement Project- Phase 6 and Phase 7	2,000 feet northeast	No cultural resources identified
Shong	2003	Letter to Mark Sadler Regarding Monitoring Results for the Everett Water Pipeline Replacement No. 2 and 3 (Phase 5)	820 feet east	No cultural resources identified
Roedel et al.	2004	Everett HOV Historic, Cultural, and Archaeological Resource Assessment, Interstate 5 HOV, SR 526 to SR 2 Vicinity, Snohomish County,	Within project site	No cultural resources identified

Author	Date	Project	Relation to Project	Results
		Washington Technical Report		
Atkinson-CH2M Hill	2005	I-5 Everett HOV Project Water Quality Site #1	Within project site	45-SN-397
McClintock/CH2M Hill	2005	Archaeological Monitoring of Soil Sampling at Water Quality Site #1, I-5 Everett HOV Design Build Project, Snohomish County, Washington	Within project site	No cultural resources identified
McClintock	2006	I-5 Everett HOW Project Water Quality Site #1 Cultural	Within project site	45-SN-397
Ravetz	2005	City of Everett Commercial/Industrial Inventory: 2005	Within project site	No cultural resources identified
Juell	2006	Archaeological Site Assessment of Sound Transit's Sounder: Everett to Seattle Commuter Rail System, King and Snohomish Counties	Within project site	No cultural resources identified

The extent of ground disturbance and fill deposits in the project area, as well as the high probability for Native American archaeological resources in alluvial sediments, have been documented by a number of previous cultural resources investigations. WSDOT found extensive previous ground disturbance in the Landfill/Tire Fire portion of the project site, in the 41st Street overcrossing, and along the railroad tracks throughout the project area (Juell, 2003a). Recent and historical debris were identified to a depth of 8 feet in the Eclipse Mill portion of the project area, and three existing buildings less than 50 years old were determined not eligible for listing in the NRHP, the WHR, or the ERHP (Roedel et al., 2004). In the South Simpson site, demolition debris was observed in borings to approximately 6.5 feet, overlying sediments of sand, peat, silt and gravels (Atkinson-CH2M Hill, 2005; McClintock, 2006). Demolition debris up to 10 to 12 feet thick was observed during monitoring of four backhoe trenches in the South Simpson site (McClintock/CH2M Hill, 2005). Other investigations in the project site vicinity failed to discover new prehistoric or ethnohistoric sites (Shong, 2002; Shong and Juell, 2002; Juell, 2002, 2003b). Historical debris was observed on the east bank of the Snohomish River, north of the project area (Shong, 2003).

Five previously recorded archaeological sites are located within 1¼ mile of the project site, and one is located within the project site boundary, as shown in Table 5.4-2.

Table 5.4-2. Previously Recorded Archaeological Sites in the Project Vicinity

Site Number	Reference	Description	Relation to Project Area
45-SN-41	Obermayr (1997) Fuller (1977)	Shell midden with fire-modified rock. Lithics, burned fish bone, and charcoal lenses	528 feet east, near Rotary Park
45-SN-43	Obermayr (1991) Fuller (1974)	Shell midden with FMR and subsurface charcoal burning	1.14 miles east, Deadwater Slough
45-SN-85	Stenholm (1991)	Lithic isolate- basalt leaf-shaped projectile point	1,050 feet west, Smith Street

Site Number	Reference	Description	Relation to Project Area
	Mattson (1980)		
45-SN-309	Young (1992)	Shell midden; lense of charcoal and burned earth, with FMR.	0.3 mile east, Ebey Island
45-SN-110	Baker 1970	Fort Ebey	1 mile southeast
45-SN-397	McClintock (2005)	Historic Debris of Everett Pulp and Paper Mill	Within the project site

Three of the sites are shell middens with associated lithic artifacts, fire-modified rocks (FMR) and charcoal-stained sediments (Bryan, 1955, 1963). The fourth site (45-SN-85) is an isolated projectile point found between two houses on Smith Street, west of the project site. An unrecorded location designated R-1 denotes a possible site reported by informants to be located near Lowell, but buried by industrial fill (Dunnell and Fuller, 1975:29). Fort Ebey was located on an island in the Snohomish River at the head of Ebey Slough, 1 mile southeast of the project site. The fort eventually was destroyed by flooding, and physical remains apparently are no longer present on the island (Baker, 1970). The remains of the Everett Pulp and Paper Mill were recorded as a historic debris scatter 45-SN-397 (McClintock, 2005). This site lacks integrity and is recommended not eligible for the NRHP (Atkinson-CH2MHill, 2005; McClintock, 2006). The remains of the Everett Pulp and Paper Mill are the only historical archaeological site recorded within the project site.

No buildings in the project site meet criteria for the NRHP, the WHR or the ERHP (Roedel et al., 2004; Everett Historical Commission, 1993). The two closest historic structures, the McCabe Building (45-SN-130) and the Swalwell Block and adjoining commercial buildings (45-SN-131), are on Hewett Avenue, approximately 700 and 1,300 feet northwest of the project site (Potter, 1975, 1976).

5.4.8 Potential Effects / Impacts of the Project

5.4.8.1 Impacts Common to the "Action" Alternatives

The landscape setting of the study area and results of previous archaeological and geotechnical studies in the vicinity of the study area indicate that the area has potential to harbor intact precontact archaeological materials. The proximity to the Snohomish River channel, the presence of formerly extensive wetlands and a possible tidal channel network attest to high potential for Native American archaeological materials. Furthermore, when considering the effects of tectonically-induced subsidence, delta progradation and the overall rise in sea level throughout the Holocene Epoch, buried surfaces containing archaeological materials may also be present in the study area.

Natural river levees are the most likely place to find Native American cultural resources in the project area. Levees are important in such landscapes because they offer well-drained topographic high places surrounded by resource-rich wetlands. In these environments, such elevated well-drained substrates often served as staging areas while people harvested plants from the surrounding wetlands or maintained fishing structures such as traps, weirs and anchor systems for fishing nets. Levee deposits also can preserve a stratified record of archaeological materials including harvesting and food processing tools, manufacturing tools, FMR used in hearths or ovens, and stake- and postmolds that may have supported drying racks or lightweight shelters. Other archaeological materials preserved could also include residue from processing fish, shellfish and plant remains. Archaeological materials often associated with tidal channel networks include weir stake alignments, weir panels and fish traps, as well as piles of rocks

located where fishing nets were anchored, especially where these channels open into the mainstem Snohomish River.

The likelihood for intact historical archaeological resources in the project area is minimal, although encountering historical debris was anticipated based on the historical background and previous cultural resources investigations. A debris scatter related to the Everett Pulp and Paper Mill has been previously recorded in the Simpson site portion of the project site.

Expectations for both historic and prehistoric resources are tempered by the amount and degree of disturbance associated with historical and modern land use. In general, aerial and historical photographs depict intensive industrial development in the project area between the railroad tracks and the shoreline related to paper, timber and shingle mills and associated railways used to export the wood products. Mill construction and operations may have severely degraded or destroyed vestiges of the latest precontact archaeological materials at the surface, though there may be patches of intact surfaces scattered throughout the former mill operations. Razing and broadcasting of demolition fill throughout the project site probably destroyed other areas of intact surface and greatly disturbed or removed historic remnants within the project site.

The alluvial fining-upward sequences characterized by basal gravel and coarse sand and capped by peat and silt suggest the gradual infilling of a former channel of the Snohomish River as a result of lateral channel migration. The gravel at the base of the fining-upward sequences suggests that a formerly active channel of the Snohomish River was aligned through the study area, and was probably oriented to the northwest. After the channel was abandoned, it was gradually filled by flood overbank deposition as the mainstem channel shifted to a new position on the floodplain.[8]

Though difficult to detect accurately based on the geotechnical data, topographically elevated or well-drained areas, such as natural levees or sandy crevasse splay deposits, may fringe wetland areas preserved in the study area at various depths below the surface. The occasional piece of detrital wood reported in some of the boring logs may represent driftwood deposited at high tide or flotsam deposited by waning floods, or may indicate the boundary between forested and more open wetlands. In any case, the presence of detrital wood in general indicates a surface and in the study area probably represents an ecotonal transition from low-lying areas to slightly more elevated areas on the floodplain.

The project site has been substantially disturbed by construction, operation and demolition of industrial structures and operation of a landfill. Prefield review of maps, photographs and previous work in the project area showed that fill material is widespread throughout. This fill greatly hindered extensive examination of subsurface contexts in alluvial deposits; however, several areas within the project remain sensitive for archaeological material.

The precontact artifact's discovery, the proximity of prehistoric archaeological sites, the results of previous cultural resources investigations (Juell, 2003a; McClintock/CH2M Hill, 2005; Roedel et al., 2004) and the preservation of buried intact alluvial surfaces in the project area indicate a high probability for subsurface archaeological resources in the project area.[9]

[8] This discussion relates to subsurface areas that have a high potential for precontact archaeological materials based on the geotechnical and geomorphologic data.

[9] The probability of intact historical resources is low. The fill hindered extensive examination of subsurface contexts in alluvial deposits (see above discussion).

Because proposed project activities and alternatives include subsurface excavation below the fill, such disturbance may inadvertently uncover and damage archaeological material.

5.4.8.2 Impacts of the No-Action Alternative

No immediate effects on the existing cultural and historical resources would occur under the no-action alternative. However, over time these resources may be affected by smaller efforts to meet the needs of the City's master development plan. Continued infill of underutilized areas over time would eventually have the same and/or greater impact on the historical and cultural resources as the "action" alternatives described in Section 2.3.

5.4.9 Monitoring/Mitigation

5.4.9.1 Monitoring

Monitoring of subfill excavations for utility installation, wetland and stream restoration, site preparation or other construction purposes by a qualified archaeologist will be conducted in the following areas:

- Simpson Pad;
- Simpson Category 1 Wetlands and Riparian Corridor;
- South Simpson site; and
- Eclipse Mill site.

The monitoring will be conducted under the auspices of a Monitoring and Discovery Plan that details procedures to be followed by the project participants in the event there is discovery of archaeological materials. The purpose of the Monitoring and Discovery Plan is to provide a coordinated program among state, tribal and city governments to avoid adverse effects to historic properties that may result from the implementation of the Everett Riverfront Master Plan and Redevelopment Project in Snohomish County, Washington. The plan provides protocols for construction and engineering personnel in the event that archaeological or human remains are discovered. A list of contacts includes the DAHP, the Tulalip Tribes, the City and other appropriate parties. Monitoring procedures include guidelines for identification and evaluation of archaeological sites, assessment of effects and treatment of historic properties and human remains, and stipulates work, reporting and curation standards. The following is a general outline of the Monitoring and Discovery Plan process.

Discovery of Archaeological Material

1. If significant, or potentially significant, archaeological resources are identified during construction, the Construction Supervisor will halt activity in the area of discovery large enough to ensure the integrity of the find. The Construction Supervisor will notify the City.
2. The City will contact the DAHP and the affected tribes within one working day.
3. The City will consult with the DAHP and affected tribes, if remains are Native American, on treatment. Resumption of work in the area of the discovery will be consistent with the results of the consultation.

Discovery of Human Remains

1. All persons will immediately halt ground-disturbing activities around the discovery and it will be secured with a perimeter of not less than 30 feet. The Construction Supervisor will immediately notify the City.
2. The City will immediately notify the Everett Police and the Snohomish County Medical

Examiner (ME) and request that the ME determine whether the remains are Native American and whether the site is a crime scene.

3. Contemporaneous with notifying law enforcement, the City shall also notify the DAHP and the Tulalip Tribes of the discovery.
4. The City will request that law enforcement handle the remains and disturb the site only to the extent needed to determine if the remains are Native American and if the setting is a crime scene.

If the human remains are determined to be Native American, then the City will consult with the Tulalip Tribes and DAHP to determine treatment and disposition. Resumption of work in the area of the discovery will be consistent with the results of the consultation.

5.4.9.2 Mitigation

Mitigation actions have not been proposed for cultural resources at this time.

5.5 TRANSPORTATION

This section provides an analysis of the proposed project alternatives to the City's transportation system.

For purposes of the transportation analysis, existing conditions are defined as the 2007 scenario. The no-action alternative is defined as the 2030 Baseline Scenario. The existing conditions scenario, no-action alternative, and the two build (action) alternatives were modeled and compared in terms of daily travel demand and mode choice, afternoon peak hour vehicular traffic and level of service.

5.5.1 Methodology

An analysis of impacts to transportation facilities both within and outside of the project study area was conducted for existing conditions, and future (year 2030) conditions for the three alternatives. Existing (Year 2007) traffic conditions (volumes, turning movements and channelization) were collected for 16 intersections during April 2007. These traffic counts were conducted while the single-point urban interchange (SPUI) at 41st Street was under construction, but were post-processed to reflect a completed SPUI (which was estimated to be completed by September 2007).

The Level of Service (LOS) analysis calculations were conducted for existing conditions utilizing the methodology outlined in the *Highway Capacity Manual 2000 Update*, Special Report 209, Transportation Research Board and Synchro 6.0 support software developed by the Trafficware Corporation.

For future conditions, traffic forecasts were developed for the three alternatives using the Puget Sound Regional Council (PSRC) EMME/2 model. Once the forecasts were complete, the LOS calculations were determined using the methodology as identified for existing conditions.

5.5.2 Existing Conditions/Affected Environment

The existing conditions of the land and improvements are discussed in Section 5.1.2, Affected Environment and Existing Land and Shoreline Uses.

5.5.3 Vehicular Access

The project site is currently accessed by vehicles at two locations. The primary access is from the recently completed 41st Street Overcrossing. This road is a five-lane roadway (west of I-5) that traverses east from the I-5/41st Street SE interchange over the BNSF railroad, into the site. East of I-5, the roadway

has four lanes (two in each direction), a 5-foot-wide bike lane in each direction, and sidewalks on both sides of the road. This roadway has a posted speed limit of 30 miles per hour (mph). After the road enters the site, it loops to the southeast, before turning northward and traversing under the 41st Street SE bridge. The road continues north for approximately ½ mile, where it terminates at 36th Street.

The second access point is via Pacific Avenue. Pacific Avenue is a four- to five-lane, east-west roadway that begins at Kromer Avenue (near Providence-Everett Medical Center) to the west, and traverses east approximately 1.3 miles before reaching the I-5 overpass. At Pacific Avenue and I-5, there are freeway ramps to and from the south. Past the northbound off-ramp, Pacific Avenue curves to the north, where it becomes Chestnut Street, with only one lane in each direction. Eclipse Mill Road, an unimproved private road, currently provides private access to the Eclipse Mill portion of the site off Pacific Avenue, terminating at 36th Street.

5.5.4 Circulation and Current Roadway Projects

The efficiency of traffic circulation is often measured in terms of traffic level of service (LOS). LOS is a rating between A and F that is assigned according to a standard method used by transportation professionals to indicate the overall degree of delay and congestion associated with a roadway or intersection. The general public considers LOS A, LOS B, LOS C, and LOS D – which cover a range of free-flowing traffic to relatively long delays – as acceptable; most people will tolerate LOS E operations (which entail very long traffic delays) in urban conditions. LOS F, characterized by extreme traffic congestion, is undesirable and warrants consideration of improvements to increase roadway capacity.

Under the Washington State Growth Management Act (GMA) of 1990, local governments are required to set acceptable levels of service for their transportation systems. Inside the urban growth area, each jurisdiction decides that it will accept a certain level of traffic congestion – as measured by LOS – and adopts this standard as part of the transportation element of its comprehensive plan. When an application for a project is submitted, the jurisdiction determines (generally through the SEPA process) whether the impacts of the project would cause the LOS in affected parts of the transportation system to fall below the acceptable standard. If the project would cause the LOS to fall below this standard, the local government has the authority either to prohibit the development's approval or to require the developer to commit to, or pay for, transportation improvements or strategies to mitigate the impacts. According to the GMA, such improvements must be completed "concurrent with the development," which in this case, is defined to mean within 6 years.

5.5.5 LOS for City of Everett Facilities

The City's level of service standard considers intersections that have a LOS of D or better as acceptable, according to the City's Transportation Mitigation Policy Ordinance 2425-99. Any intersection with an LOS of E or F is considered unacceptable, but reviewed on a case-by-case basis.

According to the ordinance, when the city engineer and the responsible official determine that it is not practical to create or maintain a LOS of D or better, then the applicant is required to use all practical measures to mitigate the impact on facilities, including all practical transportation improvements and Transportation Demand Management (TDM) measures. The City will determine on a case-by-case basis whether the resulting LOS is acceptable. If the adverse impact to LOS is likely, a detailed alternative analysis (such as an Environmental Impact Statement) is required. The City may recommend alternatives or modifications to the proposed project or may deny the project if the City determines that reasonable mitigation measures are insufficient to mitigate the project's impacts.

5.5.6 LOS for State-Owned Facilities

There are a number of highways within proximity to the project, including I-5, US-2 and SR-529. These roads are classified by WSDOT as "Highways of Statewide Significance." SR-529 follows West Marine View Drive and turns east on Everett Avenue before turning south on Maple Street, where it ends at Pacific Avenue.

WSDOT sets LOS standards for Highways of Statewide Significance (HSS), including I-5, US-2 and SR-529. For HSS routes, WSDOT uses an average daily traffic to capacity ratio (ACR) standard, and has adopted a standard of ACR 10 (which approximates to LOS D) for these routes. State law exempts HSS routes from local concurrency regulation. However, mitigation for individual development impacts to these routes can still be required through SEPA.

LOS for state highways that are not classified as HSS routes is determined by the Puget Sound Regional Council (PSRC). PSRC has adopted a LOS E-mitigated standard for non-HSS facilities. There are no non-HSS facilities within the study area.

I-5 is the only interstate highway near the project. Although there are no requirements for concurrency on I-5, improvements planned by WSDOT and/or the City within the vicinity of the project site include:

- Extending the high occupancy vehicle (HOV) lanes from SR 526 to US 2, and ultimately to Marysville
- Improvements to several existing interchanges and new interchange facilities on I-5, including at 41st Street and at US 2 (at Everett Avenue and Pacific Avenue)

US 2 is the second highest volume east-west corridor highway in the state. US 2 traffic congestion has created congestion on I-5 and local streets within Everett. State plans for improvements to US 2 include ramp improvements and an additional HOV lane to reduce congestion.

5.5.7 41st Street Project

The interchange at I-5/41st Street was recently modified by WSDOT and the City to improve the operations, safety and efficiency of the interchange, and support added capacity improvements and HOV lanes in the I-5 corridor. The interchange was modified as a SPUI to provide safer access and a more efficient configuration, while also improving access and circulation in the City. This project was identified in the Metropolitan Transportation Plan, and is compatible with the City's long-range plans for improvements in the I-5 corridor.

The previous interchange at this location had a nonstandard design, and had considerable congestion and safety issues. An Access Point Decision Report (APDR) was completed for the project in March 2004. As stated in that report, the improved interchange would enhance access to the project site.

5.5.8 Roadway Infrastructure

The City uses five basic roadway functional classifications, including:

- Freeways or Expressways
- Principal or Major Arterial Streets
- Minor or Secondary Arterial Streets

- Collector Arterial Streets
- Local Streets

The primary characteristics in defining the roadway classification is based on capacity, which includes the number of travel lanes, the traffic control devices provided and the posted travel speeds. The roadway functional classifications for streets within the study area are shown in Figure 5.5-1.

5.5.9 Existing Volumes and Traffic Operations

Existing a.m. and p.m. peak hour traffic counts were conducted in April 2007 for 16 intersections within the study area, as required by the City.

Existing traffic volumes, channelization and levels of service for the a.m. and p.m. peak hours are shown in Figures 5.5-2 and 5.5-3 and Table 5.5-1, below. These traffic counts were conducted while the SPUI at 41st Street was under construction, but were modified to replicate the full interchange completion, which is scheduled for completion in February 2008.

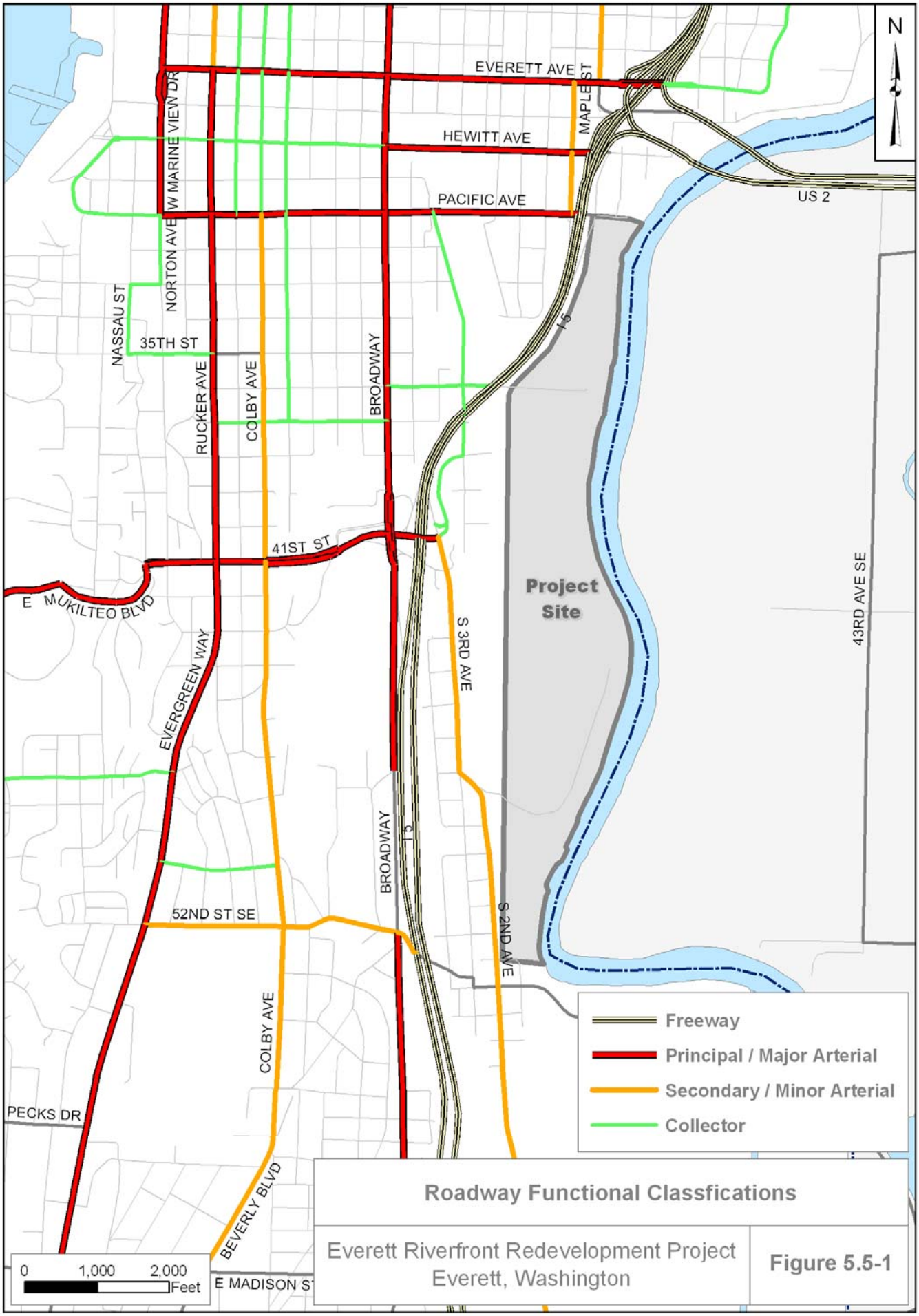
The LOS analysis calculations utilize the methodology outlined in the *Highway Capacity Manual 2000 Update*, Special Report 209, Transportation Research Board and Synchro 6.0 support software developed by the Trafficware Corporation.

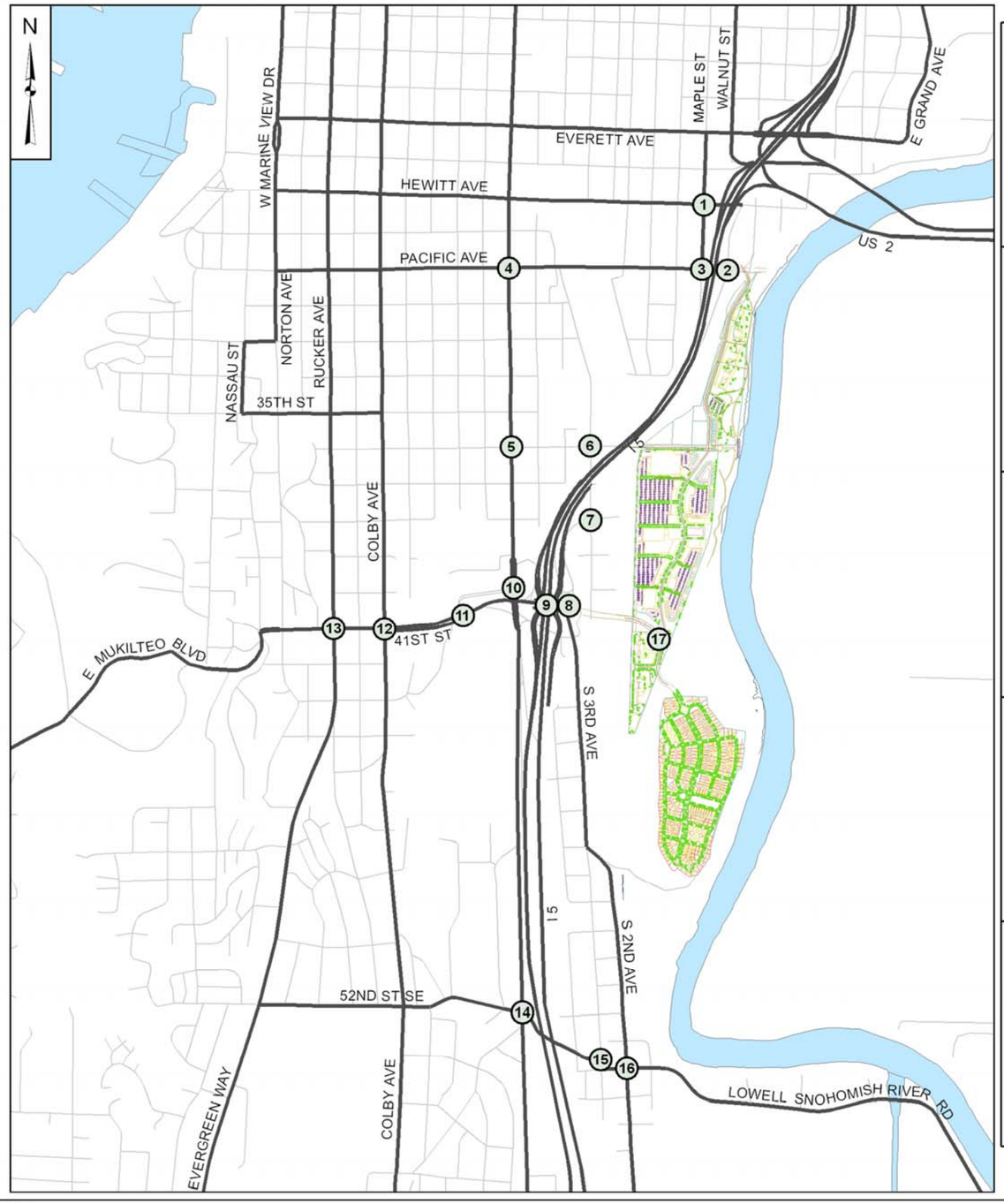
LOS calculations for stop-controlled intersections are calculated differently than for signalized intersections. Stop-controlled intersection LOS is based on the worst delay by approach. An unacceptable (failing LOS) assumes a delay of greater than 50 seconds.

At signalized intersections, the LOS calculation is based on an average delay for all approaches at the intersection. A failing LOS assumes an average delay of greater than 80 seconds.

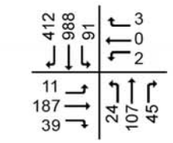
Table 5.5-1. Existing (2007) A.M. and P.M. Peak Hour Levels of Service

		Control	2007 Baseline (AM Peak)		2007 Baseline (PM Peak)	
			LOS	Delay	LOS	Delay
1	Hewitt Ave @ Maple St	Signal	A	9.3	C	30.8
2	Pacific Ave @ I-5 NB Ramp	3-way Stop	**F**	Err	B	12.3
3	Pacific Ave @ Maple (I-5 SB Ramp)	Signal	C	30.7	C	24.2
4	Pacific Ave @ Broadway	Signal	D	42.0	D	53.8
5	Broadway Ave @ 36th Street	2-way Stop	**F**	Err	**F**	Err
6	36th Street @ Smith Street	4-way Stop	A	9.6	C	18.5
7	38th Street @ Smith Street	4-way Stop	A	10.0	B	12.9
8	41st Street @ 3rd Avenue	Signal	A	6.2	A	7.6
9	41st Street @ I-5 SPUI	Signal	C	30.7	D	46.9
10	Broadway @ Broadway Connector	1-way Stop	B	13.5	C	20.4
11	41st Street @ Broadway Connector	1-way Stop	C	19.4	C	20.8
12	41st Street @ Colby Avenue	Signal	D	40.9	D	42.0
13	41st Street @ Rucker Avenue	Signal	C	34.3	**E**	68.4
14	52nd Street @ South Broadway	Signal	B	19.4	**E**	58.2
15	52nd Street @ 3rd Avenue	3-way Stop	B	13.2	D	27.0
16	52nd Street @ 2nd Avenue	4-way Stop	C	19.0	C	21.4


N
EVERETT AVE
MAPLE ST
HEWITT AVE
W MARINE VIEW DR
PACIFIC AVE
US 2
NORTON AVE
NASSAU ST
35TH ST
RUCKER AVE
COLBY AVE
BROADWAY
I-5
41ST ST
E MUKILTEO BLVD
EVERGREEN WAY
Project Site
S 3RD AVE
43RD AVE SE
52ND ST SE
S 2ND AVE
PECKS DR
BEVERLY BLVD
E MADISON ST
0 1,000 2,000 Feet
Freeway
Principal / Major Arterial
Secondary / Minor Arterial
Collector
Roadway Functional Classfications
Everett Riverfront Redevelopment Project
Everett, Washington
Figure 5.5-1

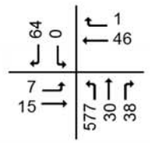


1 Hewitt Ave at Maple Street



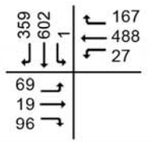
A - 9.3 sec. delay

2 Pacific Ave at I-5 NB Off-Ramp



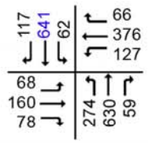
F - >50 sec. delay

3 Pacific Ave at Maple Street



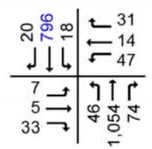
C - 30.7 sec. delay

4 Pacific Avenue at Broadway



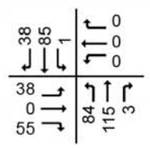
D - 42.0 sec. delay

5 Broadway at 36th Street



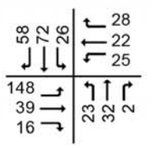
A - 5.5 sec. delay

6 36th Street at Smith Avenue



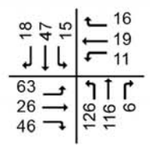
A - 9.6 sec. delay

7 Smith Avenue at 38th Street



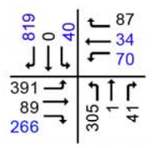
B - 10.0 sec. delay

8 41st Street at 3rd Avenue



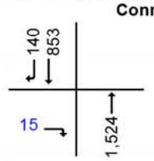
A - 6.2 sec. delay

9 41st Street At I-5 SPUI



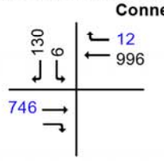
C - 30.7 sec. delay

10 Broadway at Broadway-Connector



C - 13.5 sec. delay

11 41st Street At Broadway-Connector

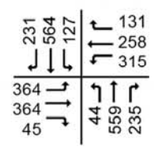


C - 19.4 sec. delay

12 41st Street at Colby Avenue

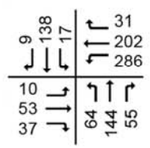
D - 40.9 sec. delay

13 41st Street at Rucker Ave



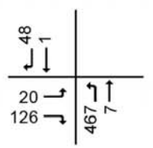
C - 34.3 sec. delay

14 S Broadway at 52nd Street



B - 19.4 sec. delay

15 Lowell Road at 3rd Avenue



B - 13.2 sec. delay

16 2nd Avenue at Lowell-Snohomish River Road

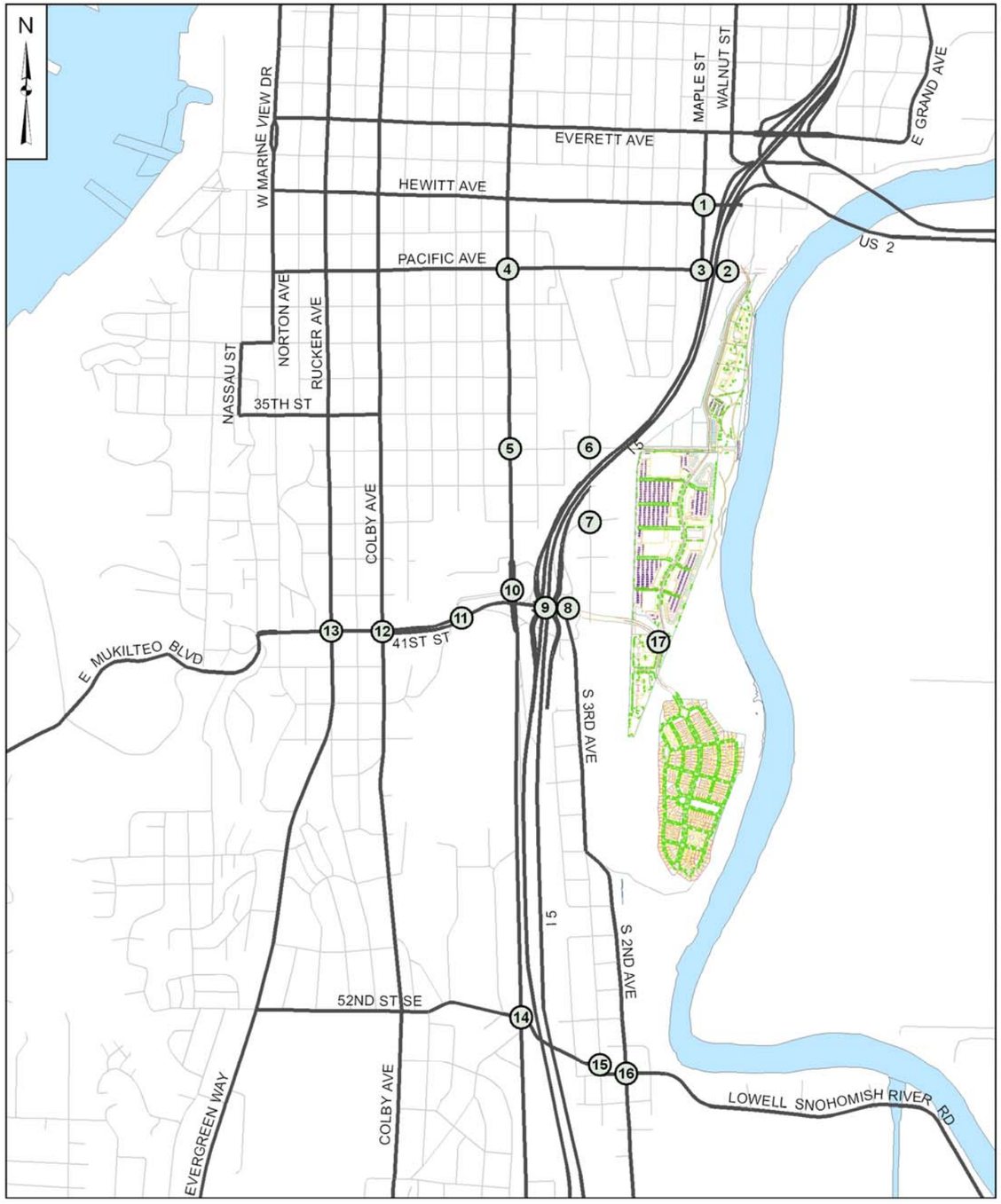
C - 19.0 sec. delay

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed. In an attached document, Perteet Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by Perteet Inc. and will serve as the official record of this communication.

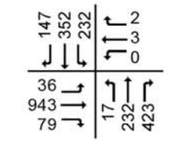
Traffic Volumes and Levels of Service (LOS)
2007 AM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-2

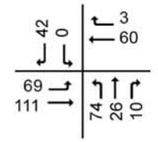


1 Hewitt Ave at Maple Street



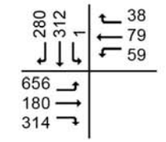
C - 30.8 sec. delay

2 Pacific Ave at I-5 NB Off-Ramp



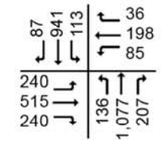
B - 12.3 sec. delay

3 Pacific Ave at Maple Street



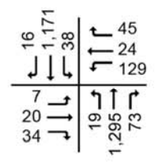
C - 30.7 sec. delay

4 Pacific Avenue at Broadway



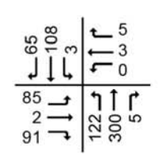
D - 53.8 sec. delay

5 Broadway at 36th Street



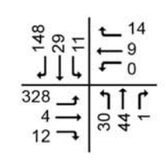
B - 11.8 sec. delay

6 36th Street at Smith Avenue



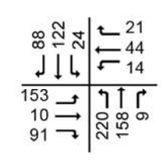
C - 18.5 sec. delay

7 Smith Avenue at 38th Street



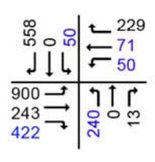
B - 12.9 sec. delay

8 41st Street at 3rd Avenue



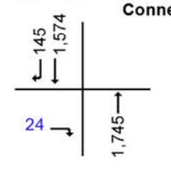
A - 7.6 sec. delay

9 41st Street At I-5 SPUI



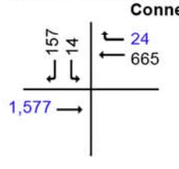
D - 46.9 sec. delay

10 Broadway at Broadway-Connector



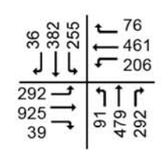
C - 20.4 sec. delay

11 41st Street At Broadway-Connector



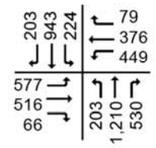
C - 20.8 sec. delay

12 41st Street at Colby Avenue



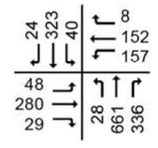
D - 42.0 sec. delay

13 41st Street at Rucker Ave



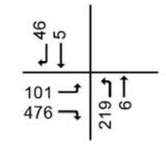
E - 68.4 sec. delay

14 S Broadway at 52nd Street



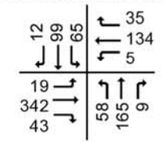
E - 58.2 sec. delay

15 Lowell Road at 3rd Avenue



D - 27.0 sec. delay

16 2nd Avenue at Lowell-Snohomish River Road



C - 21.4 sec. delay

Notes:
1. The locations of all features shown are approximate.
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Traffic Volumes and Levels of Service (LOS)
2007 PM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-3

5.5.9.1 Intersections with LOS Greater than D – Morning

During the a.m. peak hour, there are two intersections with a LOS greater than D. These include Pacific Avenue at the I-5 northbound off-ramp, and Broadway/36th Street.

- **Pacific Avenue/I-5 Northbound Off-ramp:** LOS F (>50 seconds)

  This intersection is controlled with three stops at the west, north and east legs, while the south leg (freeway off-ramp) is uncontrolled. The high northbound left turn volumes from the off-ramp result in a delay of over 50 seconds in the eastbound and westbound directions. This intersection could be readily improved by installing a signal.

- **Broadway at 36th Street:** LOS F (>50 seconds)

  This intersection is stop-controlled on the east and west approaches. It operates at a LOS F, with a delay of over 50 seconds in the eastbound and westbound directions.

5.5.9.2 Intersections with LOS Greater than D – Evening

During the p.m. peak hour, there are three intersections with a LOS greater than D. These include Pacific/Maple Street, Broadway/36th Street, 41st Street/Rucker Avenue and 52nd Street at South Broadway.

- **Broadway at 36th Street:** LOS F (>50 seconds)

  This intersection operates at a LOS F, with a delay of over 50 seconds in the eastbound and westbound directions.

- **41st Street at Rucker Avenue:** LOS E (68.4-second delay)

  This signalized intersection currently operates at a LOS E during the p.m. peak hour, with a 68.4-second delay. The primary delays are the northbound and southbound through movements.

- **52nd Street at South Broadway:** LOS E (58.2-second delay)

  This signalized intersection currently operates at a LOS E during the p.m. peak hour, with a 58.2-second delay. The primary delays are the westbound and eastbound through movements.

5.5.10 Public Transportation

Existing transit and other public transportation service within the vicinity of the project site is provided by numerous transit providers, including Everett Transit, Community Transit, Skagit Transit Authority, Island Transit and Sound Transit. These providers operate most of their service through the Everett Station, which is a multi-modal station located at 3201 Smith Avenue (south of Pacific Avenue). This facility also serves Amtrak and a number of intercity transit operations. Each weekday, approximately 770 local buses operate through Everett Station, as shown in Table 5.5-2. Sounder Commuter rail service operates two trains to Seattle in the morning, and two trains arrive at Everett in the afternoon. Amtrak operates two routes that serve Everett Station, including the Cascades route and the Empire Builder route. Existing transit services are shown in Figure 5.5-4.

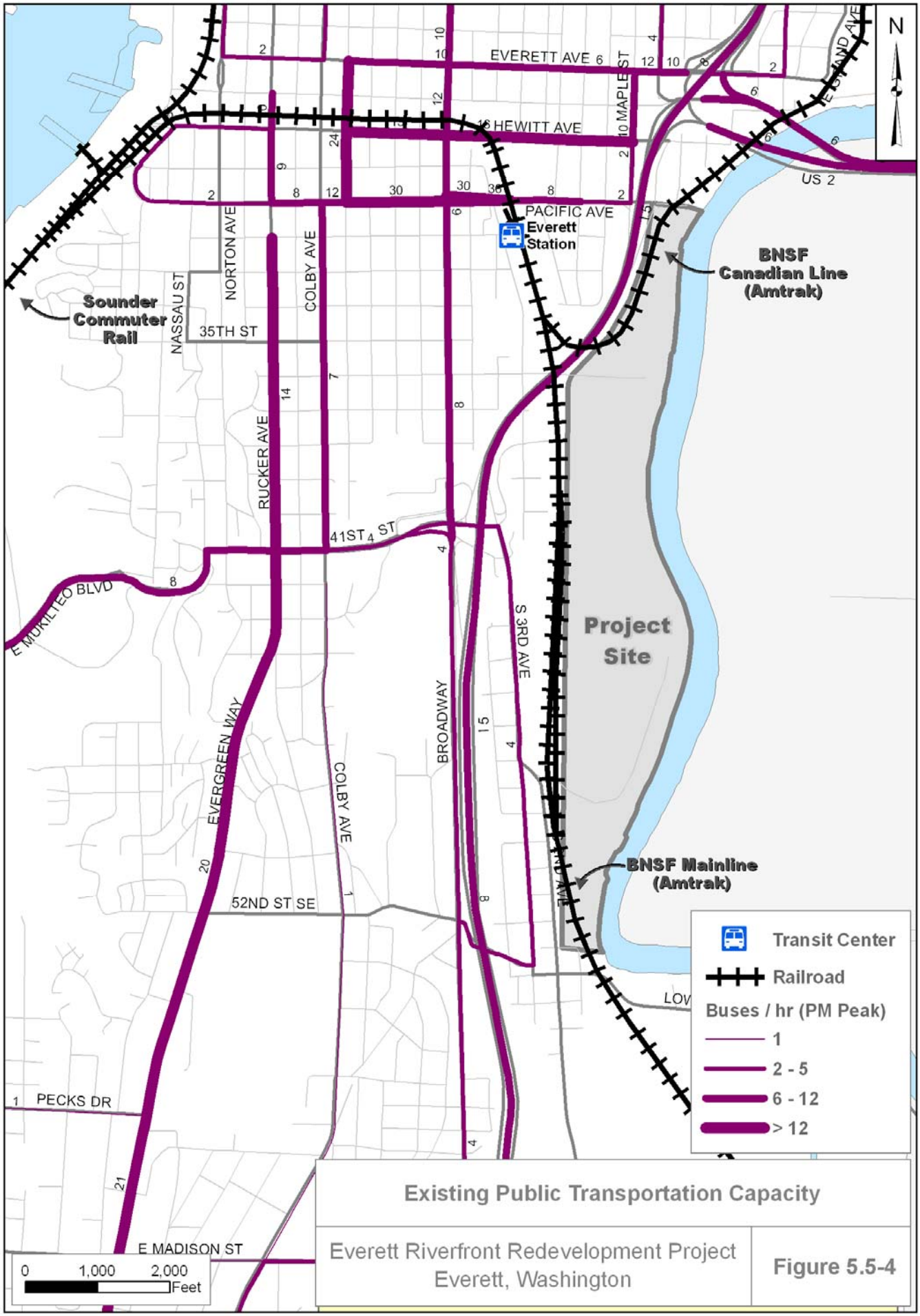

N
EVERETT AVE
HEWITT AVE
MAPLE ST
PACIFIC AVE
Everett Station
US 2
BNSF Canadian Line (Amtrak)
Sounder Commuter Rail
NORTON AVE
NASSAU ST
35TH ST
COLBY AVE
RUCKER AVE
41ST ST
E MUKILTEO BLVD
EVERGREEN WAY
BROADWAY
S 3RD AVE
Project Site
BNSF Mainline (Amtrak)
52ND ST SE
PECKS DR
E MADISON ST
Transit Center
Railroad
Buses / hr (PM Peak)
1
2 - 5
6 - 12
> 12
0 1,000 2,000 Feet
Existing Public Transportation Capacity
Everett Riverfront Redevelopment Project
Everett, Washington
Figure 5.5-4

Table 5.5-2. Existing Transit Service to Everett Station

Provider	Buses/Trains per day
Everett Transit	337
Community Transit	372
Skagit Transit	8
Island Transit	32
Sound Transit	
Regional Express	106
Sounder Rail	4
Amtrak	6
Greyhound	12
TOTAL	**877**

5.5.10.1 Everett Transit

Everett Transit operates seven bus routes that serve the Everett Station, with approximately 300 buses per weekday, with more limited service on weekends. On weekdays, routes operate between 4:30 a.m. and midnight. Route 20 (Everett Mall/Walnut) operates within the immediate vicinity of the project site, along 3rd Avenue where it serves the Lowell neighborhood. On weekdays, the service operates between approximately 5:30 a.m. and 11:00 p.m. at 30-minute to hourly headways. On Saturdays, the service operates between approximately 7:30 a.m. and 8:00 p.m. at hourly headways. On Sundays, the service operates between approximately 9:30 a.m. and 8:00 p.m. at hourly headways.

5.5.10.2 Community Transit

Community Transit operates a total of nine bus routes that serve the Everett Station. These routes operate approximately 370 buses per weekday through the station, between the hours of 5:00 a.m. and midnight. None of the routes operated by Community Transit provide service to or adjacent to the project site.

5.5.10.3 Skagit Transit Authority

The Skagit Transit Authority (SKAT) provides one transit route that serves Everett Station. The Everett Express route operates eight buses per weekday through Everett Station between the hours of 6:00 a.m. and 7:00 p.m. This service is part of the County Connector service.

5.5.10.4 Island Transit

Island Transit provides two transit routes that serve Everett Station. These routes are part of the County Connector service. The Route 412 operates between Terry's Corner (Camano Island) and Everett Station on weekdays between the hours of 4:30 a.m. and 7:30 p.m. The Route 90X operates between Mt. Vernon and Everett Station on weekdays between the hours of 5:00 a.m. and 7:30 p.m.

5.5.10.5 Sound Transit

Sound Transit provides regional transit service between Everett and other major areas throughout Puget Sound using regional express bus routes, and Sounder Commuter rail. There are three regional express bus routes, two of which operate on weekdays only. These routes operate a total of over 100 buses per

day through Everett Station, between the hours of 4:30 a.m. and 12:30 a.m. Although all of these routes provide service to Everett Station, none operate along any streets adjacent to the project site.

Sound Transit also operates Sounder Commuter rail between Everett Station and downtown Seattle (King Street Station). The service includes two morning peak runs in the southbound direction, and two afternoon peak runs in the northbound direction. The transportation element of the Everett Comprehensive Plan provides for additional capacity on the Sounder Commuter rail line to Seattle, with a potential extension to Marysville and Stanwood.

5.5.10.6 Passenger Rail

Passenger rail facilities (besides Sounder Commuter rail described above) includes Amtrak, which operates the Cascades route and the Empire Builder route. The Cascades route runs two trains per day in each direction through Everett between Los Angeles and Vancouver. The trains use the BNSF Canadian line. The Empire Builder operates one train per day in each direction through Everett between Seattle and Chicago, using the BNSF mainline tracks. The mainline tracks enter Everett from the south along Puget Sound, run under the downtown core in a tunnel, emerging near Everett Station at Pacific Avenue and exit the City to the east along the Snohomish River. This line is adjacent to the western boundary of the project site between the Landfill/Tire Fire portion of the site to the south end of the Simpson portion of the site. The Canadian line tracks diverge from the mainline near Everett Station and exit the City to the north along SR-529. These tracks are adjacent to the western boundary of the project site, from the northern edge of the Landfill/Tire Fire portion of the site to the Eclipse Mill site. The tracks cross Pacific Avenue at the northern boundary of the project site. The Amtrak trains run seven days a week with an average of more than 100 passengers per day at Everett Station.

5.5.10.7 Intercity Transit

Greyhound operates 12 trips per day through Everett, operating out of the Everett Station. Service is provided between Seattle and Vancouver, and east to Wenatchee and Spokane.

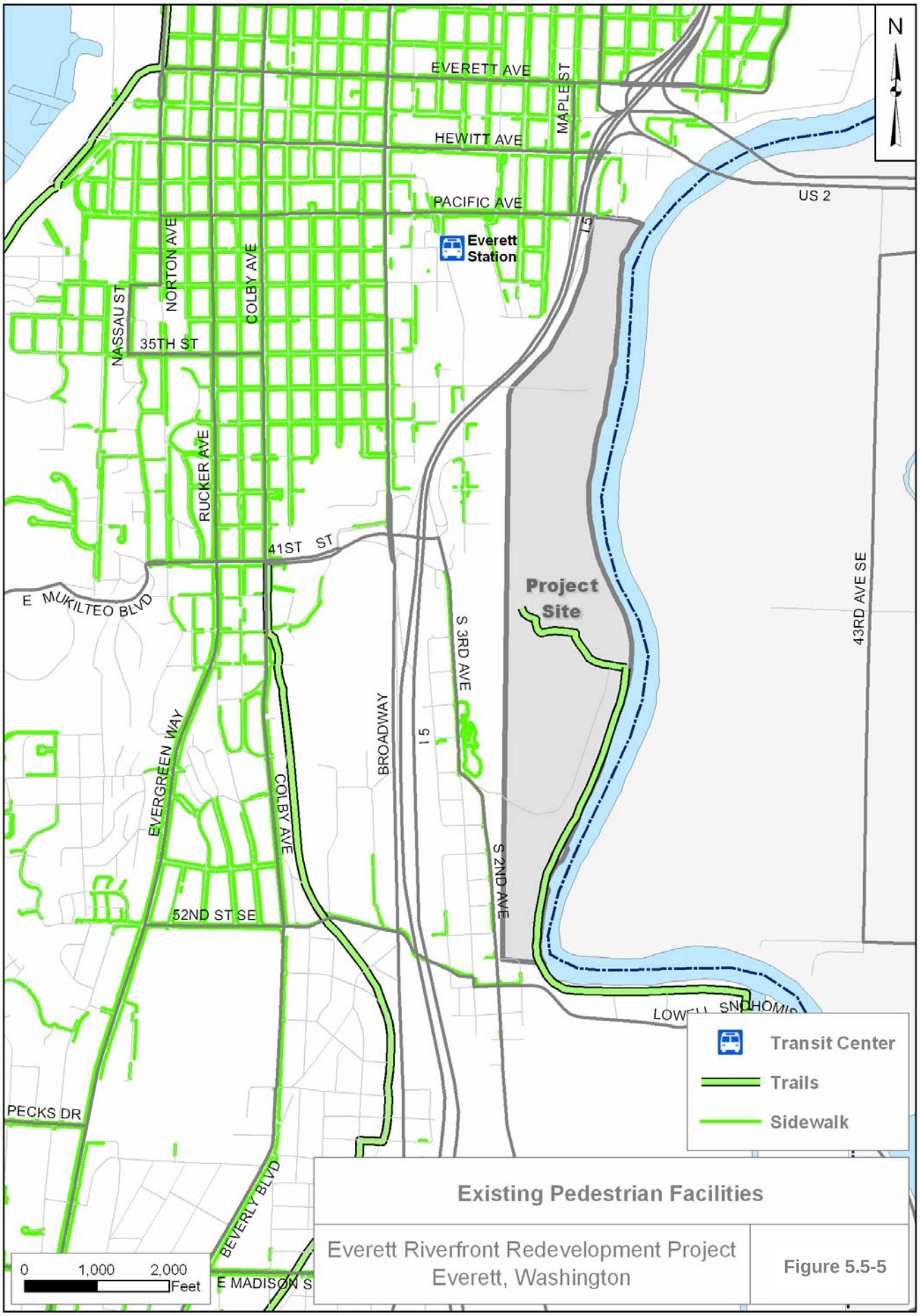
5.5.11 Non-Motorized Transportation and Freight Transportation

5.5.11.1 Existing Pedestrian Facilities

There are currently no sidewalks along any roads within the project site itself. However, there are a series of pedestrian facilities, including multi-use trails that provide access to and through the site. These trails are accessed by a number of parks and recreational facilities adjacent or near the project site. Existing pedestrian facilities are shown in Figure 5.5-5.

Lowell Riverfront Trail: At Rotary Park, located to the south of the project site (at Lowell Snohomish River Road), a 10-foot-wide multi-use bicycle/pedestrian trail extends approximately 1.75 miles to the north along the riverfront. The trail begins at a trailhead located at Lenora Street, and runs east of the Simpson Pad along the Snohomish River, then turns west along the south end of the Simpson Category 1 wetlands, and terminates at approximately the southwest corner of the wetlands.

41st Street: The recently constructed 41st Street Overcrossing (east of South 3rd Avenue) includes 6-foot-wide sidewalks on both sides of the street. After the new 41st Street interchange is completed, there will be a sidewalk on the south side of 41st Street between Broadway and South 3rd Avenue. West of Broadway, there will be a 15-foot-wide multi-use path on the south side of 41st Street.


N
EVERETT AVE
HEWITT AVE
PACIFIC AVE
MAPLE ST
US 2
I5
Everett Station
NORTON AVE
COLBY AVE
NASSAU ST
35TH ST
RUCKER AVE
41ST ST
E MUKILTEO BLVD
Project Site
43RD AVE SE
S 3RD AVE
BROADWAY
I 5
EVERGREEN WAY
COLBY AVE
S 2ND AVE
52ND ST SE
PECKS DR
BEVERLY BLVD
E MADISON S
0 1,000 2,000 Feet
Transit Center
Trails
Sidewalk
Existing Pedestrian Facilities
Everett Riverfront Redevelopment Project
Everett, Washington
Figure 5.5-5

Pacific Avenue: There is currently a sidewalk on the north side of Pacific Avenue, east of I-5. West of I-5, there are sidewalks on both sides of Pacific Avenue.

5.5.11.2 Existing Bicycle Facilities

There are a number of existing bicycle lanes or routes that currently serve the project site, including:

41st Street: The recently constructed 41st Street Overcrossing (east of South 3rd Avenue) includes a 5-foot-wide bike lane on both sides of the street. After the new 41st Street interchange is completed, there will be a multi-use path on the south side of 41st Street that continues west and connects to the north-south Interurban Trail, which is a 12-foot-wide paved multi-use trail between 41st Street and 128th Street SW.

Lowell Riverfront Trail: The trail, including its proposed extensions as described above in Section 5.5.11.1, *Existing Pedestrian Facilities*, serves as a multi-use trail for both pedestrians and bicyclists.

South 3rd Avenue/2nd Avenue: There is a bike lane on the east side (northbound direction) of South 3rd Avenue and South 2nd Avenue, between 41st Street and Junction Avenue.

In addition to these existing facilities, the Everett Comprehensive Plan designates bicycle improvements in the project vicinity, including bike lanes on 36th Street between Hoyt Avenue and the proposed extension of the Snohomish River Trail, on Pacific Avenue between Smith Avenue and the proposed extension of the Snohomish River Trail, and on Smith Avenue between Pacific Avenue and 41st Street. These projects are considered long-term projects (beyond 2018).

5.5.11.3 Truck Routes

All state routes are classified as truck routes, and the amount of freight carried on each route is recorded under the Freight and Goods Transportation System (FGTS) by WSDOT. The FGTS identifies the highways and roadways most heavily used by trucks. Within proximity to the project site are the following truck routes, their FGTS designation (2003), and annual freight tonnage:

- I-5 (T1) – 48,446,100 annual tons
- US-2 (T1) - 7,850,000 annual tons
- SR 529 (T2) – 6,577,200 annual tons

Other arterials within the City within proximity to the project site also carry volumes of freight. Several of these routes support access to the Port of Everett. These include:

- 41st Street (T2) – 6,500,000 annual tons
- Broadway (T1) – 6,500,000 annual tons
- Pacific Avenue (T1) – 11,000,000 annual tons

Lowell River Road has a truck restriction of 15 tons. The Everett Comprehensive Plan recommends capacity improvements on existing designated truck routes, including I-5 and its interchanges, and US 2.

5.5.11.4 Rail Freight

Rail freight service is provided by BNSF with two primary rail lines as described above in Section 5.5.10.4, *Passenger Rail*. The BNSF mainline carries about 34 trains per day with about 87 million tons

of freight per year. This line is adjacent to the western boundary of the project site between the Landfill/Tire Fire portion of the site to the south end of the Simpson portion of the site.

The Canadian line carries about 21 trains per day with about 12 million tons of freight per year. This line is adjacent to the western boundary of the project site, from the northern edge of the Landfill/Tire Fire portion of the site, to the Eclipse Mill portion of the site. The tracks cross Pacific Avenue at the northern boundary of the site.

The transportation element of the Everett Comprehensive Plan recommends improvements to existing rail lines to accommodate both freight and passenger rail service. Potential improvements include inter-modal connections, consolidation of rail tracks along the downtown riverfront, and safety improvements such as roadway crossing and grade-separated rail crossings, including:

- Lowell-Snohomish River Road crossing of the BNSF mainline
- East Everett Avenue overcrossing of the BNSF Canadian line
- Pacific Avenue overcrossing of the BNSF Canadian line

5.5.12 Transportation Demand Management (TDM)

One of the primary methods that local governments can reduce single occupant vehicle trips is through TDM measures or programs. TDM includes a wide range of actions or programs that are geared toward improving the efficiency of travel demand. The primary purpose is to reduce the number of vehicles using the road system while providing a wide variety of mobility options. TDM programs are designed to maximize the people-moving capability of the transportation system by increasing the number of persons in a vehicle, or by influencing the time of, or need to, travel. This is done through incentives or disincentives to change travel behavior, such as pricing incentives (such as recouping the true cost of parking), subsidies to more efficient transportation modes, helping people overcome perceived hurdles, promoting improved land use policy and flexible work hours.

One of the primary methods by which TDM is regulated is through the City's Commute Trip Reduction (CTR) program. The GMA requires large employers (with more than 100 employees arriving at the job site in the peak morning commute period) to develop CTR plans, to encourage employees to use other means of travel, such as carpools, transit, flex-days and telecommuting to reduce single occupant vehicle (SOV) travel during peak commute periods. The City administers this program within the City limits through the Transportation Services Department. The program requires CTR employers to set targets to reduce commuter trips by SOV and to identify and implement TDM techniques to meet those targets.

The State of Washington revised the CTR program and signed the CTR Efficiency Act into legislation in March 2006. This new statute allows the designation of Growth and Transportation Efficiency Centers (GTECs) by jurisdictions. GTECs are defined, mixed-use urban areas that contain jobs or housing and support multiple modes of transportation. This allows greater flexibility, with the ability to coordinate adjacent or complimentary employment sites into one program. As stated in the Transportation element of the City's Comprehensive Plan, the City will undertake planning for up to six GTECs within the Urban Growth Area, which will be a key to achieving its 2025 mode-of-travel targets.

5.5.13 Potential Effects/Impacts of Alternative 1

5.5.13.1 Roadway Network

Under Alternative 1, the project site is accessed by two primary roadways, including Pacific Avenue at the north end of the site, and 41st Street to the west. The primary access point will be 41st Street, a five-lane roadway with bike lanes and sidewalks on both sides. The vast majority of traffic (approximately 85 percent) destined for the project site is projected to use this access point. As 41st Street enters the site, it will intersect with the primary north-south spine road at a two-lane roundabout. This will require reconstruction of a portion of the existing road and revisions to the landfill. For both the Simpson Pad and the Commercial areas fire lane drive aisles adjacent to structures in excess of 30 feet in height will be at least 26 feet wide.

South of the 41st Street roundabout, the spine road will be two lanes and will provide access to the residential development at the Simpson site. The road will cross the proposed extension of the Lowell Riverfront Trail and Bigelow Creek before accessing the Simpson site. A parallel bridge may also be constructed over the creek to provide a portion of the required secondary emergency access to the Simpson site in case the primary bridge is damaged (although this bridge alone does not meet applicable code requirements).

North of the 41st Street roundabout, the spine road will traverse north through the Landfill/Tire Fire portion of the site, as a five-lane road (two lanes in each direction with a median/left-turn lane) up to the first major intersection at 40th Street. North of 40th Street, the spine road will narrow to two lanes (one lane in each direction with left-turn pockets at 39th Street and 40th Street in both directions). Parallel parking will be located on both sides of the road within this section. Between 39th Street and 38th Street, the road will continue as two lanes in what is planned to be a major pedestrian-oriented area of the project site. There will be no pockets within this portion of the road, and there will be diagonal parking on both sides of the road.

North of 38th Street, the main road will continue as two lanes with left-turn pockets at 37th Street and 36th Street in both directions. Parallel parking will be located on both sides of the road within this section. The road will continue as two lanes north of 36th Street to its northern access point at Pacific Avenue, but there will not be parking adjacent the road within this section.

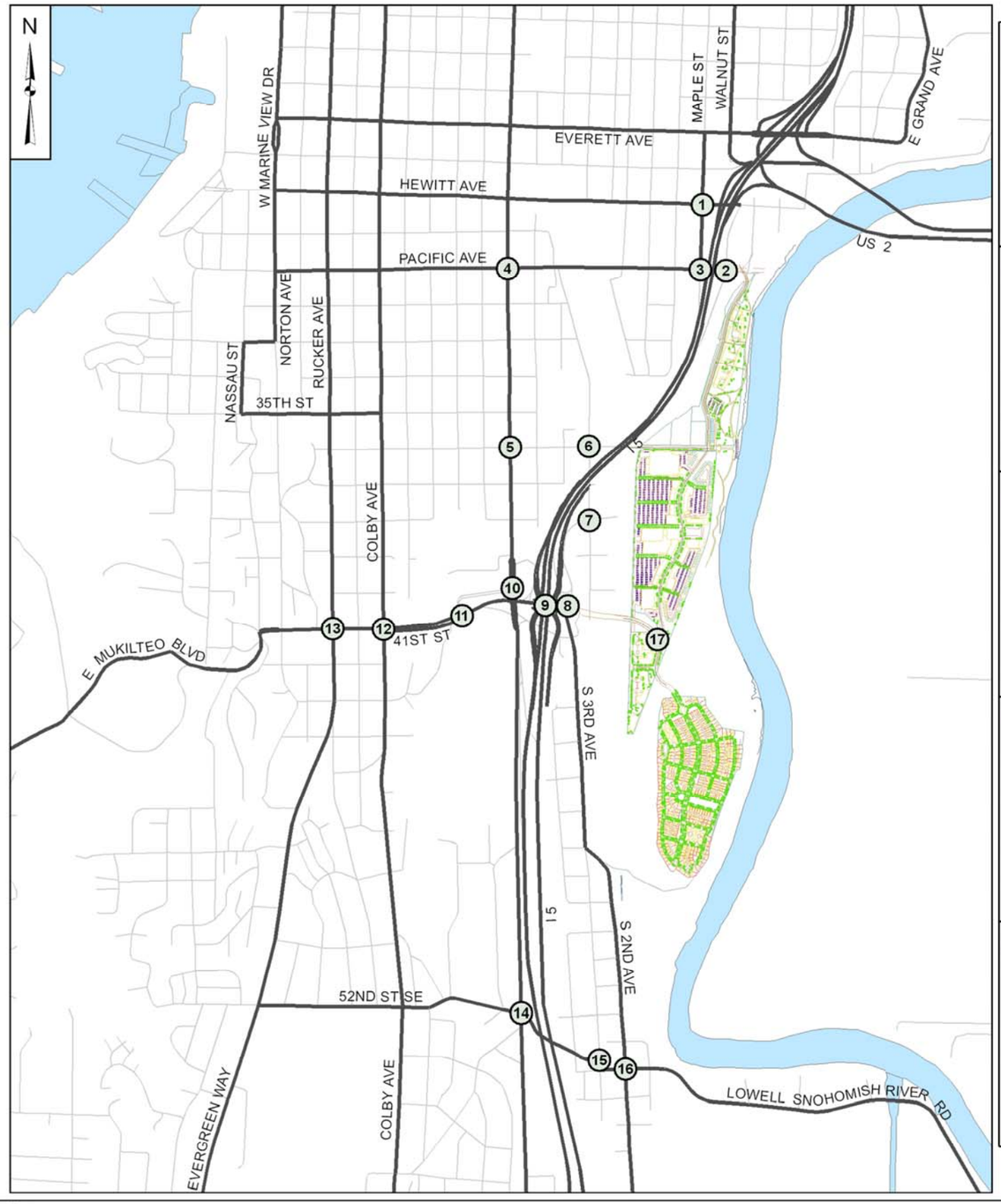
In addition to the main spine road, there will be a parallel accessory road against the western boundary of the project site. This road will be a three-lane road (two lanes in each direction with a median and southbound left-turn pockets to the east-west streets and parking lot driveways) with bike lanes on both sides. The road will be accessed from an east-west road just south of the 41st Street roundabout. The accessory road will continue north, where it turns to the east becoming 36th Street.

In addition to the roadway network improvements within the site, the long-term (2030) alternatives assume additional roadway network improvements within the study area, including an HOV lane in each direction on I-5.

Figure 2.3-1, Preferred Alternative, of Section 2.2 shows the proposed layout of the project site under Alternative 1.

5.5.13.2 Traffic Volumes and Project Trip Distribution

Traffic volumes and turning movements at each of the 16 analyzed intersections during the a.m. and p.m. peak periods are shown in Figures 5.5-6 and 5.5-7.



1 Hewitt Ave at Maple Street

400 970 90 | 5 5 5
10 220 50 | 40 180 70

B - 12.9 sec. delay

2 Pacific Ave at I-5 NB Off-Ramp

80 0 | 0 100
20 40 | 910 50 60

***C - 24.4 sec. delay**

3 Pacific Ave at Maple Street

380 630 5 | 250 720 40
110 30 150

D - 53.2 sec. delay

4 Pacific Avenue at Broadway

140 760 70 | 100 590 200
70 170 80 | 280 650 60

D - 54.1 sec. delay

5 Broadway at 36th Street

20 910 20 | 60 20 40
10 10 50 | 60 1,270 90

F - >50 sec. delay

6 36th Street at Smith Avenue

50 100 5 | 5 5 5
50 10 70 | 110 150 5

B - 11.1 sec. delay

7 Smith Avenue at 38th Street

80 80 30 | 20 10 10
180 50 20 | 30 30 10

B - 10.7 sec. delay

8 41st Street at 3rd Avenue

50 50 30 | 30 510 30
90 470 50 | 130 130 40

B - 12.7 sec. delay

9 41st Street At I-5 SPUI

780 0 220 | 280 200 210
490 200 250 | 350 0 190

B - 15.9 sec. delay

10 Broadway at Broadway-Connector

190 840
60 30 | 50 1,690

A - 8.0 sec. delay

11 41st Street At Broadway-Connector

180 60 | 80 1,250
10 880

A - 8.6 sec. delay

12 41st Street at Colby Avenue

40 130 110 | 300 810 320
170 670 30 | 60 200 190

D - 36.1 sec. delay

13 41st Street at Rucker Ave

310 770 170 | 160 320 390
430 430 50 | 60 710 300

C - 27.3 sec. delay

14 S Broadway at 52nd Street

10 140 20 | 50 360 390
10 70 40 | 70 150 80

C - 27.2 sec. delay

15 Lowell Road at 3rd Avenue

80 10
20 150 | 700 10

***B - 15.8 sec. delay**

16 2nd Avenue at Lowell-Snohomish River Road

20 80 30 | 90 430 10
10 80 50 | 190 190 10

***C - 27.2 sec. delay**

17 41st Street Roundabout

280 36
314 258 | 319 39

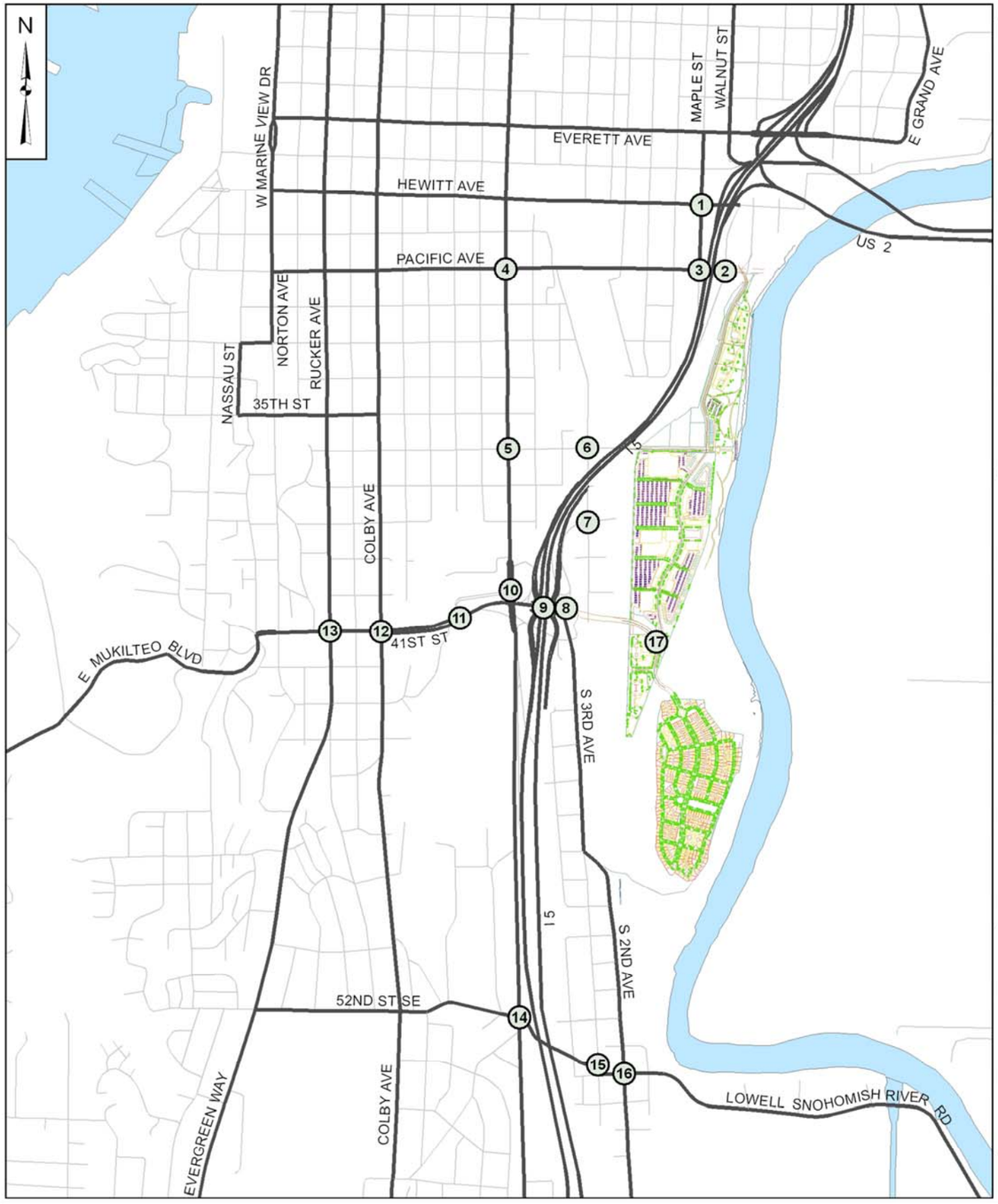
A - 7.1 sec. delay

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed. In an attached document, Perteet Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by Perteet Inc. and will serve as the official record of this communication.

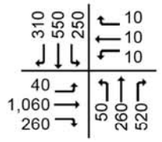
Traffic Volumes and Levels of Service (LOS)
Preferred Alternative - 2030 AM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-6

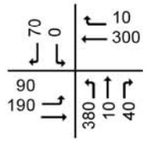


1 Hewitt Ave at Maple Street



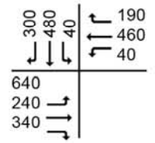
C - 30.0 sec. delay

2 Pacific Ave at I-5 NB Off-Ramp



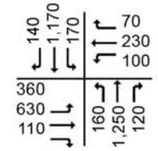
***D - 40.4 sec. delay**

3 Pacific Ave at Maple Street



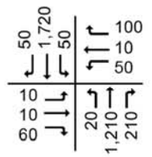
C - 28.0 sec. delay

4 Pacific Avenue at Broadway



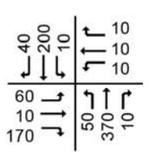
F - 99.7 sec. delay

5 Broadway at 36th Street



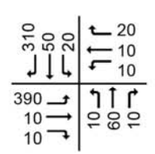
F - >50 sec. delay

6 36th Street at Smith Avenue



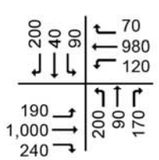
D - 27.3 sec. delay

7 Smith Avenue at 38th Street



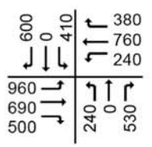
C - 17.3 sec. delay

8 41st Street at 3rd Avenue



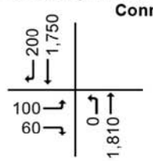
***E - 75.2 sec. delay**

9 41st Street At I-5 SPUI



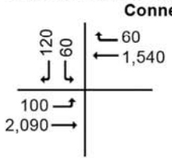
E - 55.2 sec. delay

10 Broadway at Broadway-Connector



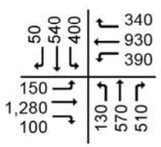
A - 6.4 sec. delay

11 41st Street At Broadway-Connector



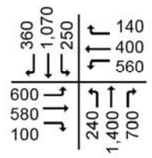
A - 9.6 sec. delay

12 41st Street at Colby Avenue



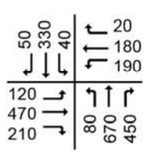
E - 76.9 sec. delay

13 41st Street at Rucker Ave



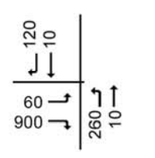
E - 74.0 sec. delay

14 S Broadway at 52nd Street



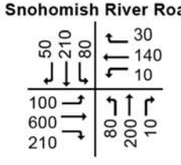
***D - 50.9 sec. delay**

15 Lowell Road at 3rd Avenue



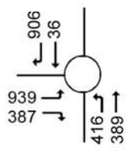
***B - 14.1 sec. delay**

16 2nd Avenue at Lowell-Snohomish River Road



***D - 45.6 sec. delay**

17 41st Street Roundabout



A - 7.8 sec. delay

Notes:
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Traffic Volumes and Levels of Service (LOS)
Preferred Alternative - 2030 PM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-7

As expected, there is an overall increase in traffic volume between current conditions and the year 2030. During the p.m. peak period, locations that have an increase in volume include:

- Pacific Avenue at I-5 Northbound Off-ramp: Increase in northbound left turns.
- 41st Street at 3rd Avenue: Increase in eastbound and westbound volumes to and from the project site.
- 41st Street at I-5 SPUI: Increase in east and west volumes to and from the project site, and to and from both directions of I-5.
- 41st Street at Broadway Connector: Increase in westbound volumes on 41st Street.
- 41st Street at Colby Avenue: Increase in westbound volume and westbound to northbound, and westbound to southbound volumes.
- South Broadway at 52nd Street: Increase in eastbound volume and eastbound to northbound and eastbound to southbound volumes.
- Lowell Road at 3rd Avenue: Increase in eastbound to southbound volume.
- 2nd Avenue at Lowell-Snohomish River Road: Increase in southbound volume, eastbound volume, eastbound to northbound volume and eastbound to southbound volume.

Figures 5.5-8 and 5.5-9 show the trip distribution for the preferred alternative, for the A.M. peak hour and P.M. peak hour, respectively. During the P.M. peak hour, 82 percent of trips are accessed at 41st Street, while 18 percent are accessed at Pacific Avenue. Outside of the project site, over half (51 percent) of all project trips are to or from Interstate 5.

5.5.13.3 Traffic Operations

Level of Service at Intersections Outside of Project Area

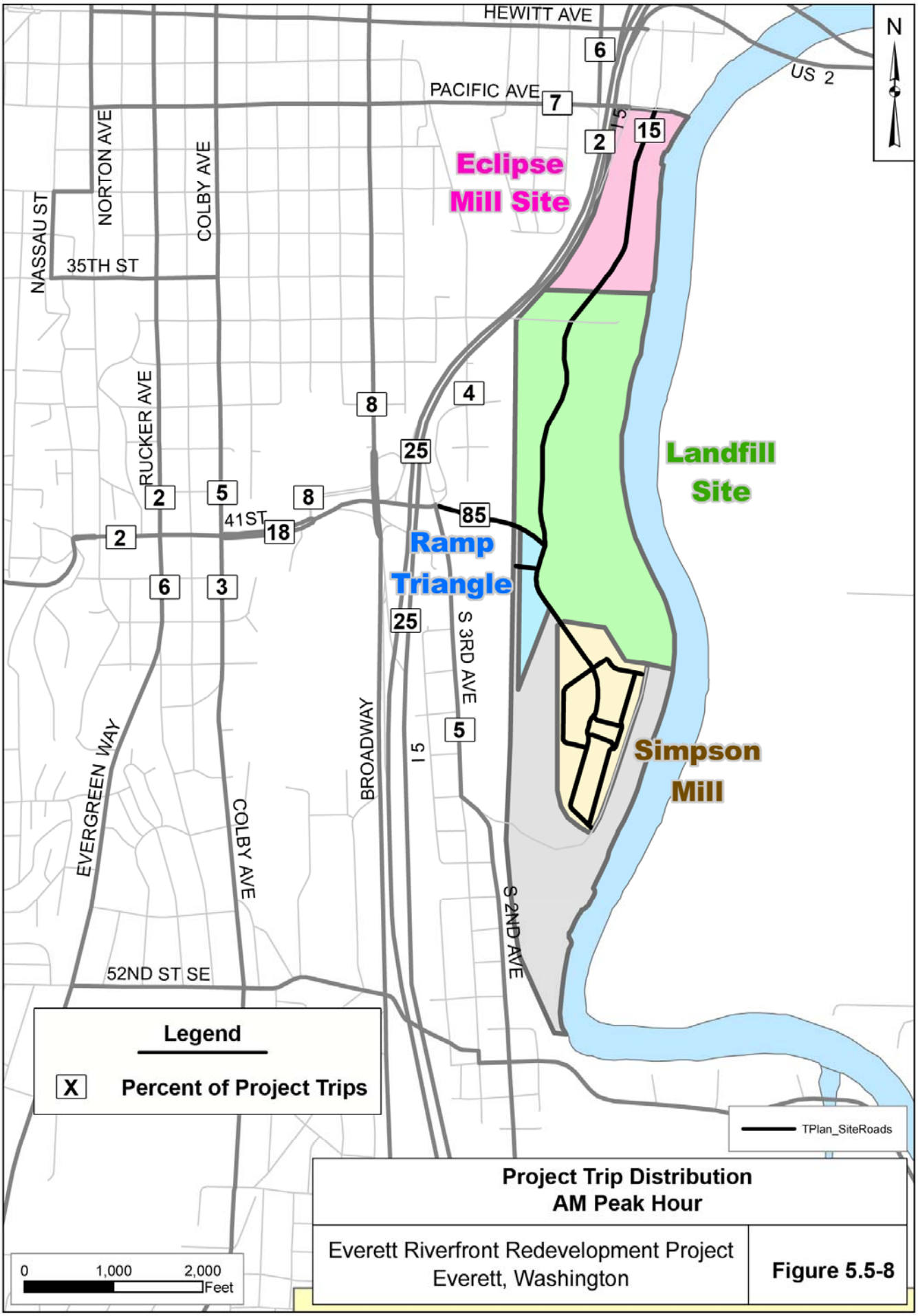
Levels of service were calculated at the study intersections for 2030 during the a.m. and p.m. peak hours. The LOS results for the year 2030 for all three alternatives during the a.m. peak hour are shown in Table 5.5-3, and the results for Alternative 1 are displayed with turning movement volumes in Figure 5.5-6. The LOS results for the p.m. peak hour are shown in Table 5.5-4, and the results for Alternative 1 are displayed with turning movement volumes in Figure 5.5-7.

The following three intersections are shown to have LOS impacts of E or greater during the a.m. peak hour:

- **Pacific Avenue at I-5 Northbound Off-Ramp:** LOS F (>50-second delay)
  As stated above in Section 5.5.9, this stop-controlled intersection currently has a LOS F during the a.m. peak hour and will continue to fail under Alternative 1. If a signal were to be installed at this intersection, it would operate at a LOS C with a 24.4-second delay.

- **Broadway at 36th Street:** LOS F (>50-second delay)
  This stop-controlled intersection will operate at a LOS F under Alternative 1, primarily because of the delay on the east and west approaches.

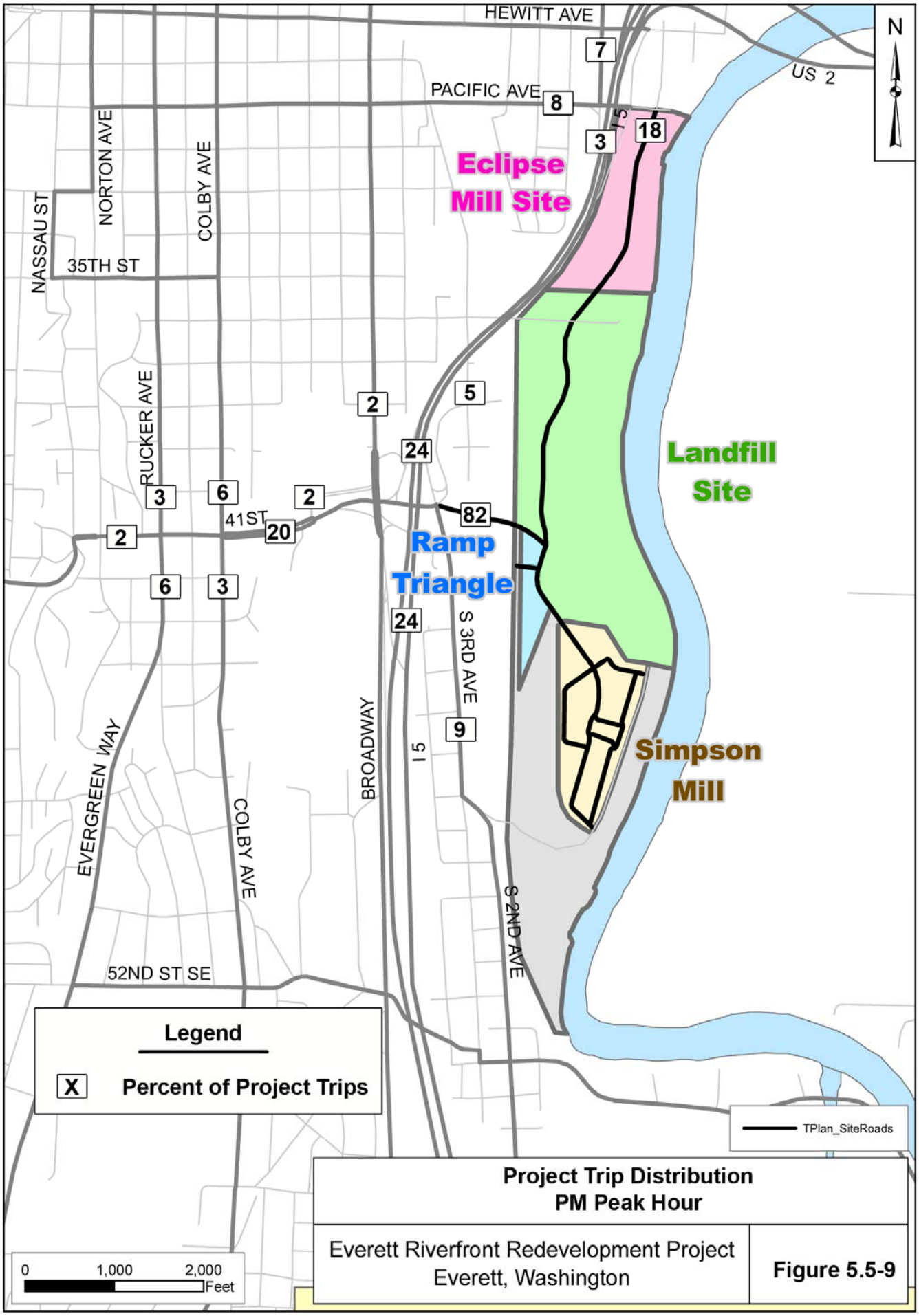
- **52nd Street at 2nd Avenue:** LOS F (>50-second delay)
  This intersection is a 4-way stop, and will degrade to a LOS F under Alternative 1 (compared to a LOS C under current conditions). If a signal were to be installed at this intersection, it would operate at a LOS C with a 27.2-second delay.



Project Trip Distribution
AM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-8



Project Trip Distribution
PM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-9

The following 10 intersections are shown to have LOS impacts of E or greater during the p.m. peak hour:

- **Pacific Avenue at I-5 Northbound Off-Ramp:** LOS F (>50-second delay)
  This intersection, which is currently stop-controlled, will have a LOS F during the p.m. peak hour under Alternative 1. If a signal were to be installed at this intersection, it would operate at a LOS D with a 41.4-second delay.

Table 5.5-3. Intersection Level of Service Summary (A.M. Peak Hour)

			2007 Baseline		2030 Preferred (Alt. 1)		2030 No Action & Alt. 2	
		Control	LOS	Delay	LOS	Delay	LOS	Delay
1	Hewitt Ave @ Maple Street	Signal	A	9.3	B	12.9	B	10.0
2	Pacific Ave @ I-5 NB Ramp	3-way Stop	**F**	Err	**F**	293.7	**F**	Err
	w/ signal	Signal			*C	24.4	*B	11.8
3	Pacific Ave @ Maple (I-5 SB Ramp)	Signal	C	30.7	D	53.2	D	47.9
4	Pacific Ave @ Broadway	Signal	D	42.0	D	54.1	E	55.4
5	Broadway Ave @ 36th Street	2-way Stop	**F**	Err	**F**	562.5	**F**	891.2
6	36th Street @ Smith Street	4-way Stop	A	9.6	B	11.1	B	10.7
7	38th Street @ Smith Street	4-way Stop	A	10.0	B	10.7	B	10.3
8	41st Street @ 3rd Avenue	Signal	A	6.2	B	11.6	B	11.4
9	41st Street @ I-5 SPUI	Signal	C	30.7	B	15.9	C	20.4
10	Broadway @ Broadway Connector	1-way Stop	B	13.5				
	Addition of SBRT, EBLT, Signal	Signal			*A	8.3	*A	4.3
11	41st Street @ Broadway Connector	1-way Stop	C	19.4				
	Addition of EBLT, signal	Signal			*A	8.6	*A	8.6
12	41st Street @ Colby Avenue	Signal	D	40.9	D	36.1	C	28.5
13	41st Street @ Rucker Avenue	Signal	C	34.3	C	27.3	C	34.6
14	52nd Street @ South Broadway	Signal	B	19.4	D	53.5	C	32.6
	w/ NBLT, NBRT, SBLT				*C	27.2	*C	22.4
15	52nd Street @ 3rd Avenue	3-way Stop	B	13.2	D	29.6	D	33.8
	w/ signal	Signal			*B	15.8	*B	11.7
16	52nd Street @ 2nd Avenue	4-way Stop	C	19.0	**F**	100.4	**F**	82.2
	w/ signal	Signal			*C	27.2	*C	26.5

Notes:
* With Improvements

Table 5.5-4. Intersection Level of Service Summary (P.M. Peak Hour)

			2007 Baseline		2030 Preferred (Alt. 1)		2030 No Action & Alt. 2	
		Control	LOS	Delay	LOS	Delay	LOS	Delay
1	Hewitt Ave @ Maple Street	Signal	C	30.8	C	30.0	D	36.0
2	Pacific Ave @ I-5 NB Ramp	3-way Stop	B	12.3	**F**	Err	**F**	Err
	w/ signal	Signal			*D	41.4	*C	32.7
3	Pacific Ave @ Maple (I-5 SB Ramp)	Signal	C	24.2	C	28.0	D	43.6
4	Pacific Ave @ Broadway	Signal	D	53.8	**F**	99.7	**F**	92.7
5	Broadway @ 36th Street	2-way Stop	**F**	Err	**F**	Err	**F**	Err
6	36th Street @ Smith Street	4-way Stop	C	18.5	D	27.3	D	31.2
7	38th Street @ Smith Street	4-way Stop	B	12.9	C	17.3	C	18.0
8	41st Street @ 3rd Avenue	Signal	A	7.6	**E**	75.2	**F**	128.3
9	41st Street @ I-5 SPUI	Signal	D	46.9	**E**	55.2	**E**	57.6
10	Broadway @ Broadway Connector	1-way Stop	C	20.4	Improvement in Progress		Improvement in Progress	
	Addition of SBRT, EBLT, Signal	Signal			A	6.4	A	7.9
11	41st Street @ Broadway Connector	1-way Stop	C	20.8	Improvement in Progress		Improvement in Progress	
	Addition of EBLT, signal	Signal			A	9.6	A	9.0
12	41st Street @ Colby Avenue	Signal	D	42.0	**E**	76.9	**E**	79.6
13	41st Street @ Rucker Avenue	Signal	**E**	68.4	**E**	74.0	**E**	64.5
14	52nd Street @ South Broadway	Signal	**E**	58.2	**F**	80.2	**F**	193.1
	w/ NBLT, NBRT, SBLT	Signal			*D	50.9	*D	39.9
15	52nd Street @ 3rd Avenue	3-way Stop	D	27.0	**F**	237.5	**F**	255.9
	w/ signal	Signal			*B	14.1	*C	29.2
16	52nd Street @ 2nd Avenue	4-way Stop	C	21.4	**F**	479.8	**F**	443.5
	w/ signal	Signal			*D	45.6	*C	37.6

Notes:
* With Improvements

- **Pacific Avenue at Broadway:** LOS F (99.7-second delay)
  This signalized intersection will operate at a LOS F with a 99.7-second delay under Alternative 1, compared with a LOS D (53.8-second delay) under current p.m. peak hour conditions. However, even under the 2030 no-action alternative, this intersection is expected to operate at a LOS F, with a 92.7-second delay.

- **Broadway at 36th Street:** LOS F (>50-second delay)
  This intersection has a two-way stop at the east and west approaches, and will continue to operate at a LOS F under Alternative 1.

- **41st Street at 3rd Avenue:** LOS E (75.2-second delay)
  This signalized intersection currently operates at a LOS A during the p.m. peak hour. Under Alternative 1, it degrades to a LOS E because of the heavy volumes in the westbound direction leaving the proposed development. This results in heavy delays in the eastbound left-turn movement, westbound through movement and southbound through movements.

- **41st Street at I-5 SPUI:** LOS E (55.2-second delay)
  This signalized intersection currently operates at a LOS D during the p.m. peak hour. Under Alternative 1, it degrades to a LOS E (55.2-second delay).

- **41st Street at Colby Avenue:** LOS E (76.9-second delay)
  This signalized intersection currently operates at a LOS D (42-second delay) during the p.m. peak hour, and is expected to degrade to LOS E (76.9-second delay) under Alternative 1.

- **41st Street at Rucker Avenue:** LOS E (74.0-second delay)
  This signalized intersection currently operates at a LOS E (68.4-second delay) during the p.m. peak hour, and is expected to remain at a LOS E under Alternative 1.

- **52nd Street at South Broadway:** LOS F (>80-second delay)
  This signalized intersection currently operates at a LOS E (58.2-second delay) during the p.m. peak hour, and is expected to degrade to a LOS F during the p.m. peak hour under Alternative 1. However, if a northbound left-turn lane, northbound right-turn lane and southbound left-turn lane were added, the LOS would improve to a D, with a 50.9-second delay.

- **52nd Street at 3rd Avenue:** LOS F (>50-second delay)
  This intersection is currently a 3-way stop, resulting in a LOS D (27.0-second delay) during the p.m. peak hour. It is expected to degrade to a LOS F under Alternative 1. This intersection could be improved to a LOS B (14.1-second delay) if a signal were installed at both 52nd Street/3rd Avenue and Lenora Street/3rd Avenue.

- **52nd Street at 2nd Avenue:** LOS F (>50-second delay)
  This 2-way stop controlled intersection currently operates at a LOS C (21.4-second delay) during the p.m. peak hour, and is expected to degrade to a LOS F under Alternative 1. However, if this intersection were to be signalized, it would operate at a LOS D (45.6-second delay).

Level of Service at Intersections within Project Area

In addition to the intersections analyzed outside of the project area, a LOS analysis was conducted for all of the intersections within the project area for both a.m. and p.m. peak hours.

None of the intersections are expected to have a LOS below D during either the a.m. or p.m. peak hour, as shown in Table 5.5-5.

Table 5.5-5. Alternative 1 – A.M. and P.M. LOS/Delay for On-Site Intersections

Intersection	Intersection Control	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
41st Street Roundabout	Roundabout	A	-	A	-
Spine Road at Triangle Access	Signal	A	3.5 sec	B	14.5 sec
Spine Road at first driveway north of 41st Street Roundabout	Stop	A	9.0 sec	B	11.5 sec
Spine Road at 40th Street	Signal	A	2.9 sec	A	6.5 sec
Spine Road at 39th Street	Stop	A	8.4 sec	C	17.7 sec
Spine Road at first driveway north of 39th Street	Stop	A	8.9 sec	B	11.3 sec
Spine Road at second driveway north of 39th Street	Stop	A	9.8 sec	B	12.3 sec
Spine Road at 38th Street	Stop	B	10.7 sec	C	15.8 sec
Spine Road at 37th Street	Stop	A	9.2 sec	C	15.2 sec
Spine Road at 36th Street	Stop	A	9.2 sec	B	11.3 sec

Accidents and Safety

Because the traffic counts used for the EIS were taken during a period of construction related to I-5 and the SPUI, it was not feasible to obtain accurate results of accident data due to the ongoing construction and detour routing associated with the project.

However, the Interstate 5/41st Street Interchange Project Access Point Decision Report (APDR), completed in March 2004, included an analysis of intersection accidents for existing (1999-2001) and future (year 2030) conditions. The APDR provides a good indication of accidents within the study area as a result of the Everett Riverfront development. The APDR assumed the construction of 600,000 square feet of office space, and 600,000 square feet of retail space on the site by the year 2030. Because the APDR proposed land uses for the project site are reasonably consistent with the current proposed land uses for either Alternative 1 or Alternative 2/No Action, it was agreed by the City that the accident and safety analysis conducted as part of the APDR is sufficient for the Everett Riverfront EIS.

Thirteen of the intersections analyzed in this EIS were analyzed in the APDR. Those not analyzed in the APDR include: Pacific Avenue at Broadway, 52nd Street at Broadway, 52nd Street at 3rd Avenue, and 52nd Street at 2nd Avenue.

At all of the intersections consistent between the APDR and the EIS, the accident rates per million vehicles for existing conditions and those projected under 2030 conditions (including the full riverfront development, I-5 SPUI, and HOV lane construction) remain virtually unchanged, and in some cases actually improve. Minor increases in accident rates were projected at Pacific Avenue/I-5 SB ramp (0.50 vs. 0.52), and at 41st Street and Colby Avenue (0.35 vs. 0.37). Other intersections are projected to have a decrease in accident rates, including Broadway/36th Street (0.46 vs. 0.33), and at 41st Street at the I-5 SPUI (0.53 vs. 0.42).

In addition, the Washington State Department of Transportation (WSDOT) has identified one High Accident Location (HAL) for the year 2006 within the study area, including the following:

SB On-Ramp from SR 2 to Interstate 5. This HAL occurs on a one lane ramp that exits from the left side of westbound SR 2, curves to the left, and then merges onto the right side of southbound I-5. The HAL begins near the end of the curve and extends to merge with Interstate 5. Rear end accidents accounted for 85 percent of the 13 accidents that occurred during the 2003-2004 analysis period, and approximately half of the accidents occurred at night. As part of the I-5 HOV lane improvement project, a dedicated auxiliary lane will be constructed, which should reduce accidents at this location.

Table 5.5-6. Intersection Accident Projections (APDR)

		1999-2001 Baseline (No Improvements)		2030 With HOV Build and Interchange Projects		
		Accidents per year	Accident Rate per MEV	PM Peak Hour Volume	Accidents per year	Accident Rate per MEV
1	Hewitt Avenue @ Maple Street	13	1.01	3,410	19	1.01
2	I-5 NB Off-Ramp/Pacific Avenue	4	1.60	1,230	9	1.26
5	Broadway @ 36th Street	7	0.46	3,840	7	0.33
6	36th Street @ Smith Street	0	0.07	440	0	0.07
7	38th Street @ Smith Street	0	0.00	530	0	0.00
8	41st Street @ S 3rd Avenue	9	0.79	3,150	13	0.75
9	41st Street @ I-5 SPUI	6	0.53	5,700	13	0.42
10	Broadway @ Broadway Connector	0	0.00	4,020	1	0.06
11	41st St. @ Broadway Connector	1	0.04	3,910	1	0.03
12	41st Street @ Colby Avenue	8	0.35	5,950	12	0.37
13	41st Street @ Rucker Avenue	14	0.53	6,900	21	0.56

5.5.13.4 Freeway Impacts

The Access Point Decision Report (APDR) that was prepared for the I-5/41st Street interchange (March 2004) provides a good indication of impacts to I-5 as a result of the Everett Riverfront development. The APDR assumed the construction of 600,000 square feet of office space, and 600,000 square feet of retail space on the project site by the year 2030. Because the APDR proposed land uses for the project site are reasonably consistent with the current proposed land uses for either Alternative 1 or Alternative 2/No-Action, it was agreed by the City that the freeway operations analysis conducted as part of the APDR were sufficient.

In addition to the improved safety and mainline operations on I-5 as a result of the new interchange, the APDR determined that future 2030 volumes in the northbound direction of I-5 would be 145,200 (average daily traffic) south of 41st Street, regardless of whether or not the interchange and HOV lanes were built. The southbound volumes were projected to be 146,400 at the same location.

The analysis also identified the level of service on the freeway mainline and at ramps (with the HOV lanes and new interchange) for the year 2030. In the southbound direction during the p.m. peak hour, all analyzed mainline and ramp locations were a LOS E or better.

In the northbound direction during the p.m. peak hour, the only locations that had a LOS F included:

- I-5 at SR 2/Everett Avenue Northbound On-ramp
- Mainline SR 2 On-ramp to East Marine View Drive
- I-5 at East Marine View Drive Northbound Off-ramp

5.5.13.5 Non-Motorized Impacts

Alternative 1 includes sidewalks on the major roadways. Wide sidewalks (approximately 20 feet wide) will be on both sides of the primary north-south spine road within the Landfill/Tire Fire portion of the project site. Pedestrian improvements will be part of the spine road as it continues through the Eclipse Mill site and will connect with improvements on Pacific Avenue. A sidewalk would be on the east side, to access the buildings to the east.

Sidewalks will be located on one side of the east-west streets to access the retail buildings within the Landfill/Tire Fire site. Bike lanes are planned for the accessory road located on the west side of the Landfill/Tire Fire portion of the project site.

In addition to the non-motorized improvements described above, there are a number of improvements that are identified in the City's Shoreline Public Access Plan (SPAP), which was adopted on May 21, 2003, that will be integrated with the project. These improvements are described below and shown in Figure 5.5-10.

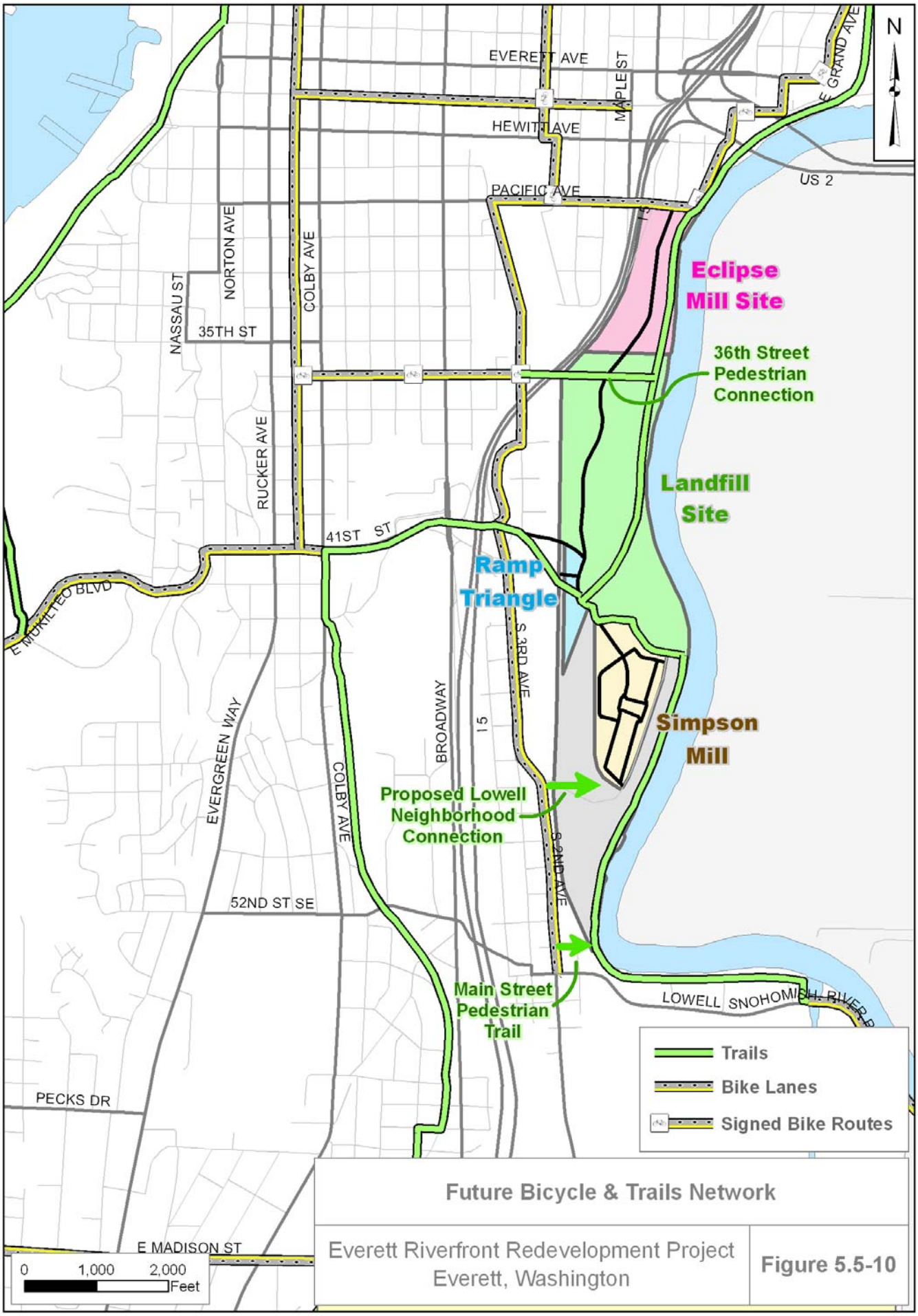
Lowell Riverfront Trail

Alternative 1 includes the extension of the Lowell Riverfront Trail, as planned in the SPAP. The trail is planned to extend from the southern boundary of the project site to the northern boundary of the project site. At the southern end, the trail will be accessed from a future east-west trail/overcrossing to Main Street (see below). The southern portion of this trail will be a series of boardwalks through a wetland interpretive center. The trail will then transition to a 12-foot-wide trail that traverses north adjacent to the BNSF rail line. The trail will cross the main spine road, and continue north between the mixed-use buildings and the wetlands, accessing the boat dock area, before ending at Pacific Avenue at the northern end of the site. As an interim connection, where the current proposed development ends at the Newland property, the public access trail would loop from the riverside location back to the roadway through the Eclipse Mill site and tie into pedestrian improvements on the roadway.

A new 12-foot-wide east-west trail will also provide a connection between the new north-south trail and the existing Lowell Riverfront Trail. This east-west trail will be located south of the residential area within the Simpson Mill portion of the project site. Another connection will be made at the northern end of the Simpson Mill housing area, to connect to where the existing Lowell Riverfront Trail currently ends.

As part of the Riverfront Redevelopment project, a trail will be designed along the main spine road south of the 41st Street roundabout to provide a connection to the new north-south (Lowell Riverfront) trail and the bike lanes on 41st Street.

The Transportation element of the City's Comprehensive Plan also identifies the Lowell Riverfront Trail extension, where it would continue past Pacific Avenue and follow the Snohomish River to the downtown harbor front.


N
EVERETT AVE
HEWITT AVE
PACIFIC AVE
MAPLE ST
E GRAND AVE
US 2
NORTON AVE
COLBY AVE
NASSAU ST
35TH ST
RUCKER AVE
41ST ST
E MUKILTEO BLVD
EVERGREEN WAY
BROADWAY
I 5
S 3RD AVE
S 2ND AVE
52ND ST SE
PECKS DR
E MADISON ST
LOWELL SNOHOMISH RIVER R
Eclipse Mill Site
36th Street Pedestrian Connection
Landfill Site
Ramp Triangle
Simpson Mill
Proposed Lowell Neighborhood Connection
Main Street Pedestrian Trail
Trails
Bike Lanes
Signed Bike Routes
0 1,000 2,000 Feet
Future Bicycle & Trails Network
Everett Riverfront Redevelopment Project
Everett, Washington
Figure 5.5-10

36th Street Pedestrian Connection

The SPAP identifies a pedestrian/bicycle connection across the BNSF railroad at 36th Street, as follows: "Widened sidewalk and bicycle lanes should be added to 36th Street to provide a link to the Everett Station and, ultimately, to downtown Everett. A pedestrian/bicycle overcrossing should be provided over the railroad." A sidewalk is currently located on the east side of Smith Street, beginning approximately 500 feet north of 36th Street, continuing north to the Everett Station. This project is also included in the City's Transportation Improvement Program (TIP).

This planned pedestrian/bicycle overcrossing of the BNSF mainline tracks at 36th Street will be incorporated into the project. However, the alignment over the railroad and into the project site will likely be located closer to 38th Street to take advantage of existing terrain. This connection will provide a link between the Everett Station area and the project site. An overcrossing at this location also provides a more centralized connection between the mixed-use area on the Landfill/Tire Fire portion of the site, and a potential trolley stop on South 3rd Avenue.

The SPAP states that these plan elements should be given high priority for early implementation "because it will connect travelers from the Lowell community and southeast Snohomish County to the Everett Station and the Highway 2 bicycle lanes, providing an important commuter connection and making possible a number of recreational bicycle loop rides. East-west connections at 36th Street and across 41st Street, connecting to the Interurban Regional Trail, will also be critical to connect back to Everett's southern neighborhoods and the region to the south."

In addition to the planned non-motorized improvements described above, there are other non-motorized improvements currently planned or underway, including a Main Street pedestrian trail and Lowell neighborhood connection.

Main Street Pedestrian Trail

A pedestrian overcrossing is currently under construction as part of the WSDOT Stormwater Facility Project. The project includes a pedestrian overcrossing of the BNSF railroad tracks near Main Street. The pedestrian trail touches down in the area adjacent to the WSDOT stormwater ponds. This trail provides access between the Lowell neighborhood and the Snohomish River Trail.

Lowell Neighborhood Connection

There is an existing agreement between the City and BNSF to develop a pedestrian/bicycle overcrossing between the Main Street pedestrian crossing and the 41st Street extension. This facility would provide for a better connection between the project site and the Lowell neighborhood. At this time, no site has been selected, and the project is not funded. The project would likely be in the vicinity of Lowell Park. This facility will be incorporated into the project site and connect to the new Lowell Riverfront Trail (described above).

Summary

In summary, non-motorized connections between the project site and other major activity areas will be enhanced through the series of the planned trails, sidewalks and bike facilities. These facilities will improve access between adjacent neighborhoods, the Everett Station, and the riverfront. The facilities will also provide linkages or connections to existing regional trail facilities, such as the Interurban Trail. These facilities will benefit residents, employees and customers within the proposed development, and other users from outside the development who want to access the development and riverfront. The investment in non-motorized facilities, providing connections between land uses, can substantially help to reduce trips by automobile. These improvements are consistent with the 2006 Update of the

Transportation element of Everett's Comprehensive Plan, including the following Transportation Objectives:

- Objective #1: Expand Multi-Modal Travel Opportunities
- Objective #2: Develop Appropriate Design Standards and Procedures
- Objective #4: Minimize Environmental and Community Impacts

Generally, the pedestrian/bicycle trails located within critical areas or buffers will be integrated with proposed critical area mitigation and buffer enhancements. The potential impacts of these improvements to the natural environment are addressed in Chapter 4 of this document.

5.5.13.6 Transit/Public Transportation Impacts

The project site is located within close proximity to the Everett Station, which is the City's hub for transit services including Everett Transit, Sound Transit, Skagit Transit, Community Transit, Amtrak and Greyhound. The project will not have any negative impacts to transit, but will benefit from its proximity to existing and planned transit services. As identified in the Transportation element of the City's Comprehensive Plan, a number of new transit improvements are anticipated beyond the year 2018. These service improvements include:

- A starter light rail line between Everett Station and Everett Community College
- Additional light rail lines to Everett Mall and Boeing
- A riverfront to waterfront connection (bus or trolley service)
- Expanded Sounder service (Everett Station to Seattle) to 8 trains per day
- New Sounder service from Everett Station to Stanwood
- An Express bus route (Sound Transit) from Everett Station to Bellevue
- A local transit route to serve the Everett Riverfront site

The proposed non-motorized connection across the BNSF railroad at 38th Street will help to facilitate access to Everett Station and these proposed transit services.

A new transit route would likely serve the Riverfront Redevelopment project. The service could use an existing route, such as the route 4, which is restructured to serve the project site. The goal is to have a service frequency of 15-minute headways, with a minimum of 30- minute headways. The preferred routing would access the site at both Pacific Avenue and at 41st Street. The route could potentially operate in both directions, and would traverse along the main spine road. A secondary option is for the route to be accessed only from 41st Street (if the railroad crossing near Pacific Avenue and ramps at I-5 are a hindrance to transit operations). Under this scenario, the route would access the site only from 41st Street, traverse north along the main north-south spine road, and use 36th Street to loop back to the spine road in a southerly direction. In this case, the route would primarily serve the Landfill/Tire Fire portion of the site.

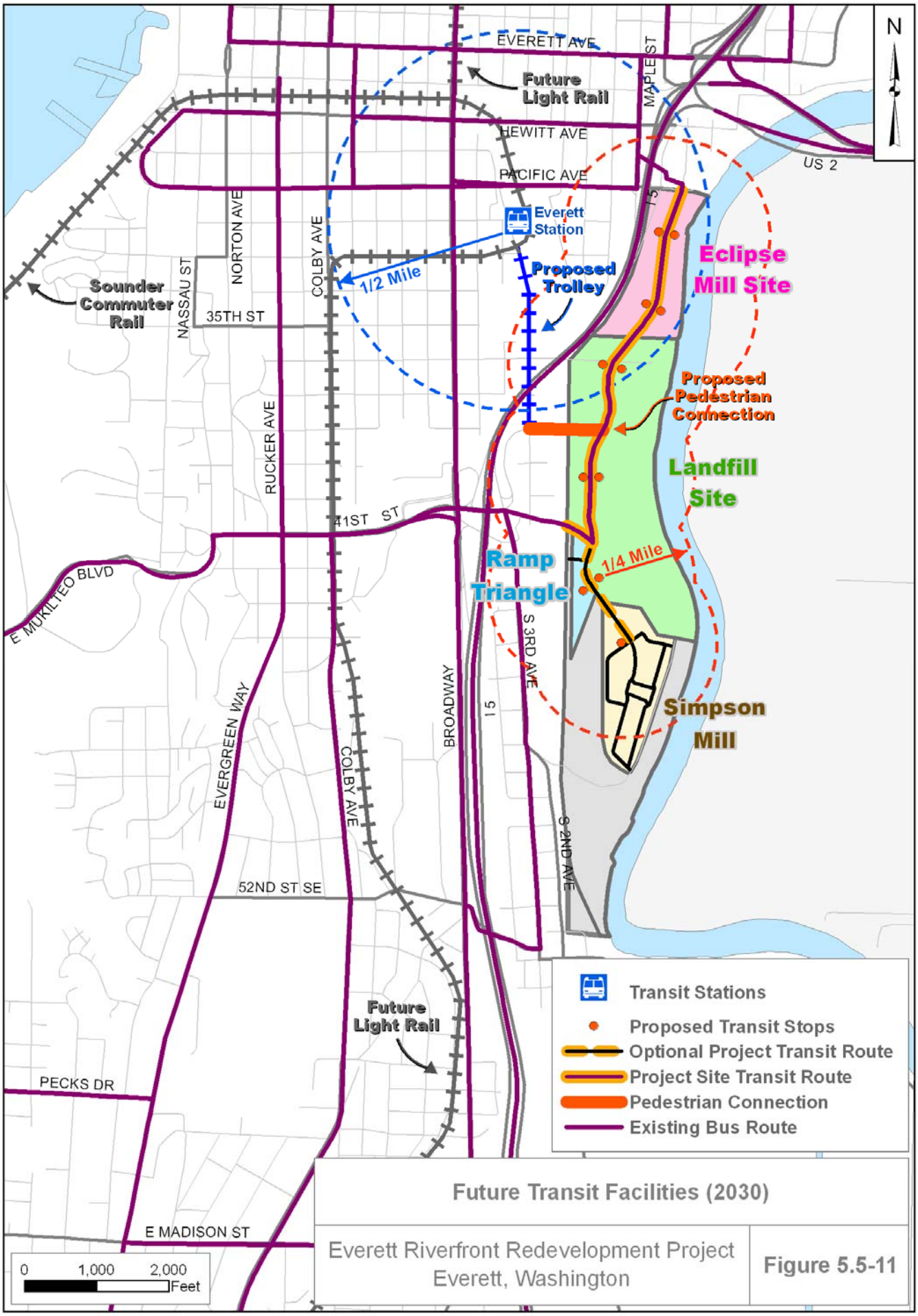
The route could also serve the Simpson site through a route deviation type of service. The route could continue south of the 41st Street roundabout if requested by passengers, to provide access to the Ramp Triangle and residential uses at the Simpson site, where the bus would turn around to traverse back to 41st Street.

The streets within the development will be designed to accommodate a 60-foot articulated bus, as well as school buses.

Starting from the north, there would be stops at the following locations:

- 2 primary stops (in each direction) between Pacific Avenue and 36th Street roundabout (Eclipse Mill parcel)
- 2 secondary stops (in each direction) between the 36th Street and the 41st Street roundabout
- 1 secondary stop (in each direction) between the 41st Street roundabout and Bigelow Creek (Ramp Triangle area)
- 1 secondary stop at the roundabout at the Simpson Mill parcel

Figure 5.5-11 shows future planned transit services and facilities, and proposed routing and stop locations within the project site. Buses would stop in-lane, without bus pull-outs. Transit stops should be designed to meet Everett Transit design standards, with a power source for lighting and ITS equipment, such as real-time information. The primary stops located between 36th Street and 41st Street are likely to have the highest ridership because of the high concentration of mixed uses, and therefore should include adequate weather protection. Weather protection can be accommodated through a stand-alone shelter, or through the use of canopies or insets at the building facades. Examples of weather-protected transit stops are shown in Figures 5.5-12 and 5.5-13. All stops should include adequate signage with route schedules and a route map. Stops that do not have weather protection can include seating, as shown in Figure 5.5-14.



Future Transit Facilities (2030)

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-11

Figure 5.5-12 – Transit Stop with Stand Alone Shelter

Figure 5.5-13 - Transit Stop Using Building Canopy

Figure 5.5-14 - Transit Stop with Seating

The City is currently considering the development of a bus or streetcar connection between Everett Station and downtown Everett/waterfront. If a streetcar were implemented, it could potentially have a maintenance facility located south of the Everett Station, along Smith Avenue south of 36th Street. The proposed non-motorized connection across the BNSF railroad near 38th Street would provide a direct connection between the riverfront development and the streetcar.

In summary, under Alternative 1, there will be improved local transit service to the project site, as well as improved access to other nearby transit services and Everett Station. These improvements to transit will result in an overall increase in transit ridership, and could substantially reduce trips made by automobile. These improvements are consistent with the 2006 Update of the Transportation element of Everett's Comprehensive Plan, including the following Transportation Objectives:

- Objective #1: Expand Multi-Modal Travel Opportunities
- Objective #2: Develop Appropriate Design Standards and Procedures
- Objective #4: Minimize Environmental and Community Impacts

5.5.13.7 Fire and Emergency Vehicle Access

There are two fire stations within close proximity to the project site. Fire Station #2 is located at McDougall Avenue and 16th Street and is approximately 1.5 miles from the north entrance of the project site at Pacific Avenue. Fire Station #1, the closest station to the site, is located at Rucker Avenue at 36th Street. This station is approximately 1.25 miles from the 41st Street entrance to the project site.

Emergency access to the Landfill/Tire Fire site and Eclipse Mill site is adequate with the two primary access points at 41st Street and at Pacific Avenue. See Section 5.6.2.1 for more details regarding existing fire and emergency services that will serve the project site.

A secondary emergency access must be provided to the residential area on the Simpson pad in accordance with Appendix D of the City of Everett Fire Code. A second access is required if the pad is developed with: (1) more than 100 multi-family dwellings without sprinklers (includes air condominiums/Low Density Multi Residential (LDMR), etc.); (2) more than 200 fully sprinklered multi-family dwellings (includes air condominiums/LDMR, etc.); or (3) more than 30 conventional single- and multi-family dwellings without sprinklers. The Code requirements for the access are that it must be a 20-foot-wide all weather surface and the access must be constructed to provide access for a ladder truck with a 72,000-pound weight and a 35-foot minimum inside turn radius.

There are three alternative locations for the location of the emergency access that have been identified (shown generally on Figure 5-17). Additional alternatives may be considered and could be subject to additional review if pursued. Also, it is possible that a combination of the alternatives none of which would meet all standards but would provide reasonable access in combination may be considered that meets Fire Department approval. The alternatives identified are:

1. Develop a crossing parallel to the bridge providing the primary access to the Simpson Pad that has sufficient separation from the primary access. Such a crossing would necessitate crossing wetland areas that lie between the to-be-removed railroad tracks. There does not appear to be a location that would meet this requirement in a stand-alone condition but it may be able to combine with another alternative to meet the need.
2. Upgrade and utilize the service road that presently accesses the south end of the Simpson Pad just east of the BNSF Mainline to meet the Fire Department standards. The road begins at the parking

area for Rotary Park and traverses through the western edge of the WSDOT property and continues to the north where it forms a delta. At this point it turns east and loops slightly to the northeast entering the Simpson Pad at its southeast corner. This will necessitate widening in some areas, and potential changes to its alignment to meet the requirements. The total length of this alternative is about 2,800 feet. About 700 feet of the widening would likely encroach 4-6 feet into the buffer that is north of the road and between the road and the Simpson Pad. This access could be integrated with trail features. This route would require agreements with WSDOT and BNSF where the road traverses their properties.

3. Widen and upgrade the trail from the Rotary Park parking area to the Simpson Pad to meet the Fire Department standards. This alternative would require the trail to be widened and probably raised in elevation to flood-proof it. This alternative is about 2,000 feet in length.

The roadways and roundabouts within the project site will be constructed to accommodate fire trucks and other emergency vehicles.

5.5.14 Potential Effects/Impacts of Alternative 2

5.5.14.1 Roadway Network

Similar to Alternative 1 as described in Section 5.5.13.1, the project site will be accessed by two primary roadways, including Pacific Avenue at the north end of the site, and 41st Street to the west. The primary access point will be 41st Street, which will intersect with the primary north-south spine road at a two-lane roundabout.

South of the 41st Street roundabout, the spine road will be essentially the same as for Alternative 1, except that it will provide access only to proposed office uses because Alternative 2 does not include residential uses.

North of 41st Street, the main spine road traverses north and ultimately connects to Pacific Avenue to serve the commercial area, similar to Alternative 1. There would be diagonal or parallel parking on both sides of the road within this section.

Similar to Alternative 1, there will be a parallel accessory road against the western boundary of the project site. The road will be accessed from an east-west road just south of the 41st Street roundabout. The accessory road will continue north, where it turns to the east, becoming 36th Street.

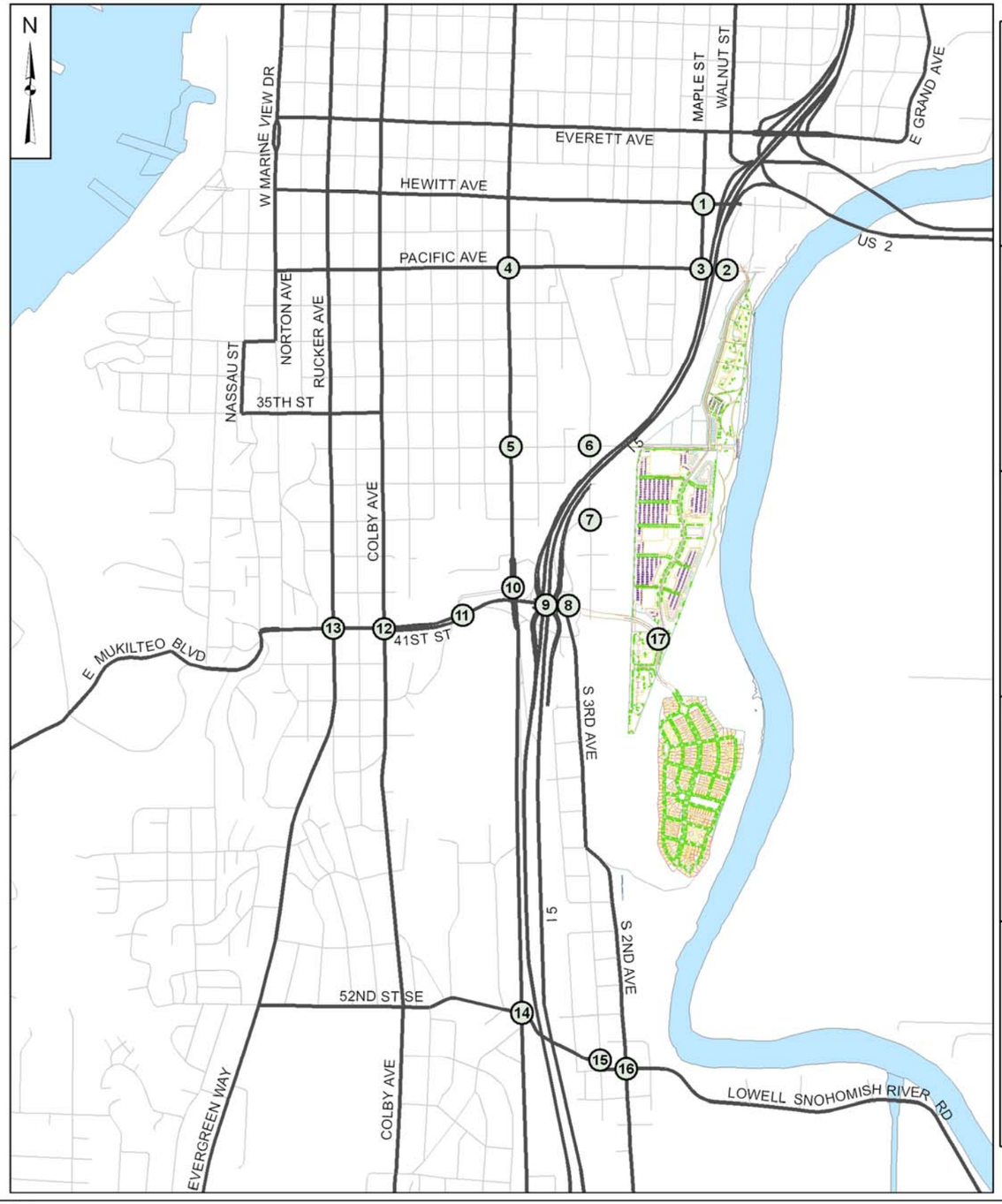
The site plan developed for Alternative 2 was not developed to the same level of detail as for Alternative 1, and does not include the number of lanes assumed for various portions of the road.

As with Alternative 1, Alternative 2 assumed two additional roadway network improvements within the larger study area, including an HOV lane in each direction on I-5.

5.5.14.2 Traffic Volumes

Traffic volumes and turning movements at each of the 16 analyzed intersections during the a.m. and p.m. peak periods for Alternatives 2 and 3 (the no-action alternative) are shown in Figures 5.5-15 and 5.5-16.

Similar to Alternative 1, there is an overall increase in traffic volume between current conditions and the year 2030. During the p.m. peak period, locations that have an increase in volume are the same as those listed in Section 5.5.13.2 for Alternative 1.



1 Hewitt Ave at Maple Street

410 970 90 | 5 5 5
10 210 50 | 40 180 7

B - 10.0 sec. delay

2 Pacific Ave at I-5 NB Off-Ramp

80 0 | 0 50
30 60 | 900 50 60

***C - 24.4 sec. delay**

3 Pacific Ave at Maple Street

370 630 200 | 200 760 40
90 60 120 |

D - 41.9 sec. delay

4 Pacific Avenue at Broadway

140 790 80 | 170 590 130
80 180 90 | 290 650 60

E - 55.4 sec. delay

5 Broadway at 36th Street

20 930 20 | 40 20 60
10 10 50 | 60 1,270 90

F - >50 sec. delay

6 36th Street at Smith Avenue

40 110 5 | 5 5 5
50 10 900 | 100 130 5

B - 10.7 sec. delay

7 Smith Avenue at 38th Street

100 80 30 | 30 20 20
160 40 20 | 30 40 0

B - 10.3 sec. delay

8 41st Street at 3rd Avenue

50 40 60 | 10 250 10
80 660 50 | 150 130 70

B - 11.9 sec. delay

9 41st Street At I-5 SPUI

790 0 160 | 160 110 180
380 380 250 | 160 0 250

C - 20.4 sec. delay

10 Broadway at Broadway-Connector

210 840 |
30 30 | 50 1,690

A - 5.7 sec. delay

11 41st Street At Broadway-Connector

180 80 | 50 1,010
10 930 |

A - 8.5 sec. delay

12 41st Street at Colby Avenue

190 210 60 | 200 700 290
170 670 30 | 80 130 70

C - 20.4 sec. delay

13 41st Street at Rucker Ave

320 780 180 | 170 430 310
440 440 50 | 60 720 300

C - 34.6 sec. delay

14 S Broadway at 52nd Street

10 130 30 | 90 280 350
10 60 40 | 70 150 60

***C - 22.4 sec. delay**

15 Lowell Road at 3rd Avenue

80 0 |
30 120 | 640 10

***B - 11.7 sec. delay**

16 2nd Avenue at Lowell-Snohomish River Road

10 80 30 | 70 440 10
5 80 40 | 200 150 30

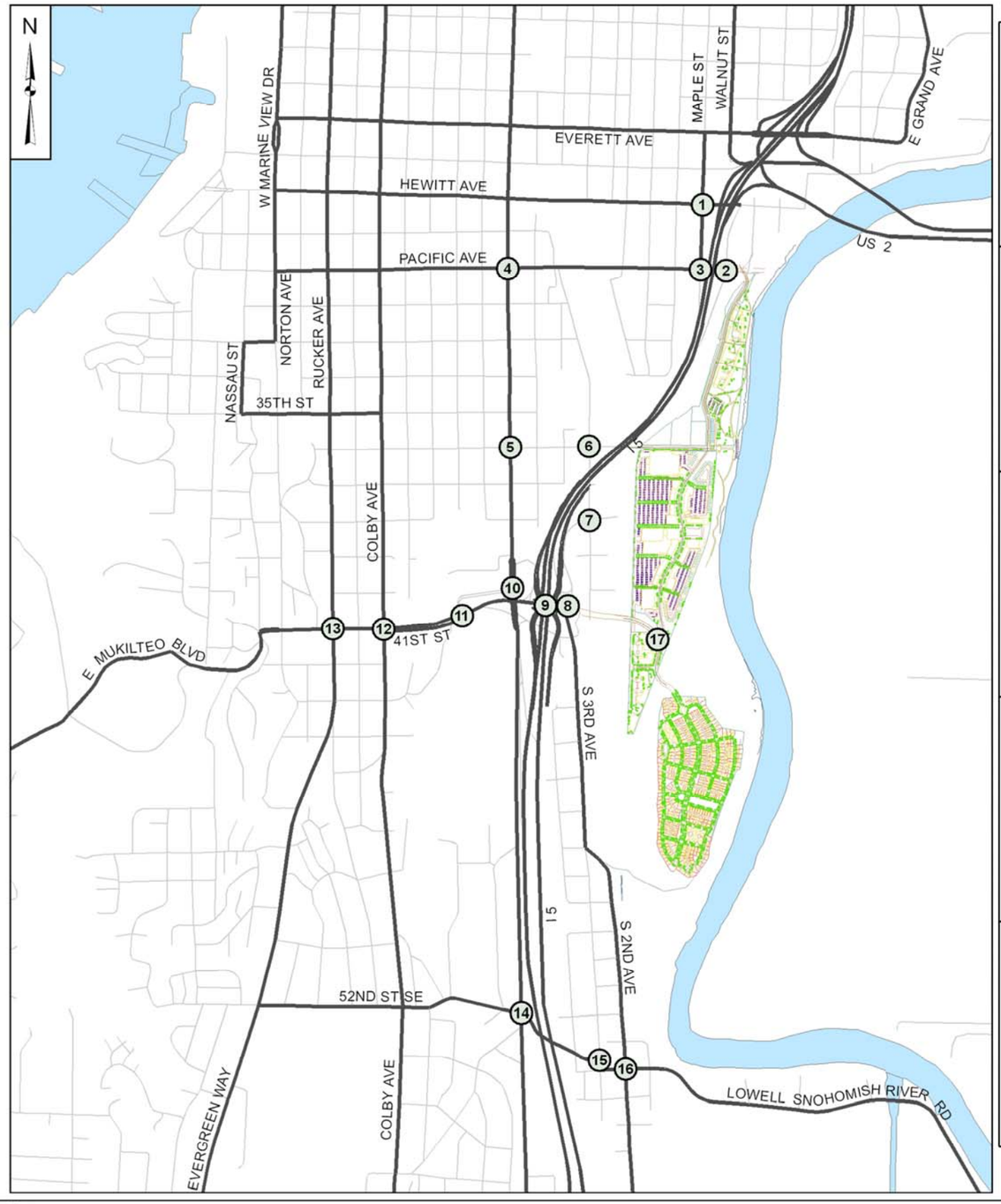
***C - 26.5 sec. delay**

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed. In an attached document, Perteet Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by Perteet Inc. and will serve as the official record of this communication.

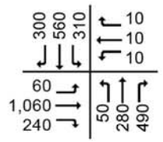
Traffic Volumes and Level of Service (LOS) Alt. 2/No Action - 2030 AM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-15

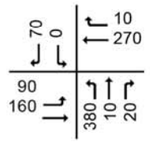


1 Hewitt Ave at Maple Street



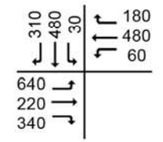
C - 30.0 sec. delay

2 Pacific Ave at I-5 NB Off-Ramp



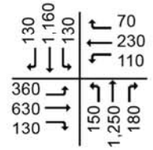
***C - 27.5 sec. delay**

3 Pacific Ave at Maple Street



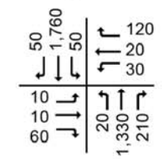
D - 46.1 sec. delay

4 Pacific Avenue at Broadway



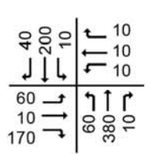
F - 97.8 sec. delay

5 Broadway at 36th Street



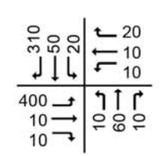
F - >50 sec. delay

6 36th Street at Smith Avenue



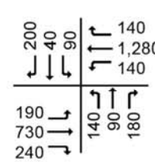
D - 31.2 sec. delay

7 Smith Avenue at 38th Street



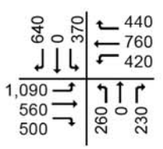
C - 18.0 sec. delay

8 41st Street at 3rd Avenue



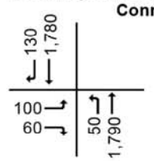
F - >80 sec. delay

9 41st Street At I-5 SPUI



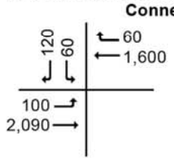
D - 52.0 sec. delay

10 Broadway at Broadway-Connector



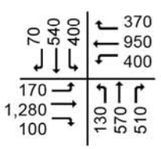
A - 6.2 sec. delay

11 41st Street At Broadway-Connector



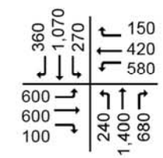
A - 9.3 sec. delay

12 41st Street at Colby Avenue



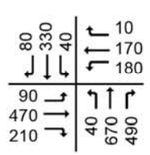
E - 78.5 sec. delay

13 41st Street at Rucker Ave



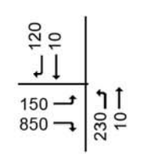
E - 68.1 sec. delay

14 S Broadway at 52nd Street



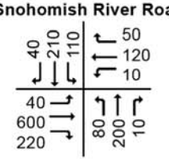
***D - 39.9 sec. delay**

15 Lowell Road at 3rd Avenue



***C - 23.5 sec. delay**

16 2nd Avenue at Lowell-Snohomish River Road



***C - 34.0 sec. delay**

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed. In an attached document, Perteet Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by Perteet Inc. and will serve as the official record of this communication.

Traffic Volumes and Level of Service (LOS)
Alt. 2/No Action - 2030 AM Peak Hour

Everett Riverfront Redevelopment Project
Everett, Washington

Figure 5.5-16

The key difference in volumes between Alternative 2 or 3 (the no-action alternative) and Alternative 1 includes:

- 41st Street at I-5 SPUI: Under Alternatives 2 and 3 (the no-action alternative), there is a higher increase in westbound to southbound volumes, but a lower increase in northbound to eastbound volumes. This is primarily because Alternatives 2 and 3 (the no-action alternative) include a larger amount of office uses, and no residential uses. Thus, more employees are leaving the site during the p.m. peak for Alternatives 2 and 3, while more residents are entering the site for Alternative 1.

5.5.14.3 Traffic Operations

Level of Service

The LOS results for the year 2030 for all three alternatives during the a.m. peak hour are shown in Table 5.5.3 above in Section 5.5.13.3, and the results for Alternative 2 and the no-action alternative are displayed with turning movement volumes in Figure 5.5-15. The LOS results for the p.m. peak hour are shown in Table 5.5.4 above in Section 5.5.13.3, and the results for Alternative 2 and the no-action alternative are displayed with turning movement volumes in Figure 5.5-16. The following intersections are shown to have LOS impacts of E or greater during the a.m. peak hour:

- **Pacific Avenue at I-5 Northbound Off-Ramp:** LOS F (>50-second delay)
  As stated above in Section 5.5.9, this intersection currently has a LOS F during the a.m. peak hour, and will continue to fail under Alternatives 2 and 3 (the no-action alternative). If a signal were to be installed at this intersection, it would operate at a LOS B with an 11.8-second delay.

Pacific Avenue at Broadway: LOS E (55.4-second delay)
This signalized intersection will operate at a LOS E with a 55.4-second delay under Alternatives 2 and 3 (the no-action alternative), compared with a LOS D (42.0-second delay) under current a.m. peak hour conditions.

- **Broadway at 36th Street:** LOS F (>50-second delay)
  This intersection has a two-way stop at the east and west approaches, and will operate at a LOS F under Alternatives 2 and 3 (the no-action alternative).

- **52nd Street at 2nd Avenue:** LOS F (>50-second delay)
  This intersection is a four-way stop, and will degrade to a LOS F under Alternatives 2 and 3 (the no-action alternative) (compared to a LOS C under current conditions). If a signal were to be installed at this intersection, it would operate at a LOS C with a 26.5-second delay.

The following intersections are shown to have LOS impacts of E or greater during the p.m. peak hour:

- **Pacific Avenue at I-5 Northbound Off-Ramp:** LOS F (>50-second delay)
  This intersection, which is currently stop-controlled, will have a LOS F during the p.m. peak hour under Alternatives 2 and 3 (the no-action alternative). If a signal were installed at this intersection, it would operate at a LOS C with a 32.7-second delay.

- **Pacific Avenue at Broadway:** LOS F (92.7-second delay)
  This signalized intersection will operate at a LOS F with a 92.7-second delay under Alternatives 2 and 3 (the no-action alternative), compared with a LOS D (53.8-second delay) under current p.m. peak hour conditions.

- **Broadway at 36th Street:** LOS F (>50-second delay)
  This intersection will operate at a LOS F under existing conditions, and under Alternatives 2 and 3 (the no-action alternative).

- **41st Street at 3rd Avenue:** LOS F (128.3-second delay)
  This signalized intersection currently operates at a LOS A during the p.m. peak hour. Under Alternatives 2 and 3 (the no-action alternative), it degrades to a LOS F because of the heavy volumes in the westbound direction leaving the proposed development. This results in heavy delays in the eastbound left-turn movement, westbound through movement, and southbound through movements. The delay is higher than under Alternative 1, primarily because of the higher amount of office land use at the project site under Alternatives 2 and 3 (the no-action alternative), which results in a greater number of p.m. peak hour trips leaving the project site.

- **41st Street at Colby Avenue:** LOS E (79.6-second delay)
  This signalized intersection currently operates at a LOS D (42-second delay) during the p.m. peak hour, and is expected to degrade to LOS E (79.6-second delay) under Alternatives 2 and 3 (the no-action alternative).

- **41st Street at Rucker Avenue:** LOS E (63.5 second delay)
  This signalized intersection currently operates at a LOS E (68.4-second delay) during the p.m. peak hour, and is expected to remain at a LOS E under Alternatives 2 and 3 (the no-action alternative).

- **52nd Street at South Broadway:** LOS F (>80-second delay)
  This signalized intersection currently operates at a LOS E (58.2-second delay) during the p.m. peak hour, and is expected to degrade to a LOS F during the p.m. peak hour under Alternatives 2 and 3 (the no-action alternative). However, if a northbound left-turn lane, northbound right-turn lane and southbound left-turn lane were added, the LOS would improve to a D, with a 39.9-second delay.

- **52nd Street at 3rd Avenue:** LOS F (>50-second delay)
  This intersection is currently a three-way stop, resulting in a LOS D (27.0-second delay) during the p.m. peak hour. It is expected to degrade to a LOS F under Alternatives 2 and 3 (the no-action alternative). This intersection could be improved to a LOS C (29.2-second delay) if a signal were installed.

- **52nd Street at 2nd Avenue:** LOS F (>50-second delay)
  This two-way stop controlled intersection currently operates at a LOS C (21.4-second delay) during the p.m. peak hour, and is expected to degrade to a LOS F under Alternatives 2 and 3 (the no-action alternative). However, if this intersection were to be signalized, it would operate at a LOS D (37.6-second delay).

Level of Service at Intersections within Project Area

Assumptions for intersection treatment were not provided for Alternative 2, other than at the 41st Street roundabout, and therefore LOS was determined only for that intersection. During the a.m. peak hour, the roundabout will operate at LOS A, and during the p.m. peak hour, it will operate at LOS B.

Accidents and Safety

Because the traffic counts were taken during a period of construction related to I-5 and the SPUI, it was not feasible to analyze historical patterns of traffic accidents.

5.5.14.4 Freeway Impacts

As noted for Alternative 1 (see Section 5.5.13.4), freeway impacts were identified as part of the I-5/41st Street interchange APDR. The land uses for the project site assumed under Alternative 2 are generally comparable to those that were assumed for the site in the APDR, and therefore the APDR provides a good indication of impacts to I-5 as a result of the Riverfront Redevelopment project as currently proposed.

The APDR determined that the freeway mainline and ramps (with the HOV lanes and new interchange) all performed at a LOS E or better for the year 2030 in the southbound direction during the p.m. peak hour.

In the northbound direction during the p.m. peak hour, the following locations had a LOS F:

- I-5 at SR 2/Everett Avenue Northbound On-ramp
- Mainline SR 2 On-ramp to East Marine View Drive

5.5.14.5 Non-Motorized Impacts

Alternative 2 will include most of the same non-motorized improvements that were included in Alternative 1 (see Section 5.5.13.5). Specifically, the same trail improvements that are included as part of Alternative 1 will be developed under Alternative 2. These include the extension of the Lowell Riverfront Trail to Pacific Avenue, the additional north-south trail on the Simpson Mill site, and the proposed east-west connections across the BNSF railroad at Main Street, near Lowell Park, and near 36th Street.

As in Alternative 1, sidewalks would be located adjacent all of the major roadways within the project site, including the main north-south spine road and the east-west streets that serve the commercial and office buildings.

Non-motorized connections between the project site and other major activity areas will be enhanced through the series of the planned trails, sidewalks and bike facilities. These facilities will improve access between adjacent neighborhoods (such as the Lowell neighborhood), the Everett Station and the riverfront. The facilities will also provide linkages or connections to existing regional trail facilities, such as the Interurban Trail.

5.5.14.6 Transit/Public Transportation Impacts

Under Alternative 2, transit operations would be similar to Alternative 1 (see Section 5.5.13.6). The only exception is that the Ramp Triangle site does not include a proposed land use (between 41st Street roundabout and Bigelow Creek), and therefore, there would not be the need for a stop at this location.

5.5.14.7 Fire and Emergency Vehicle Access

Fire and emergency access to the Landfill/Tire Fire site and Eclipse Mill site is adequate with the two primary access points at 41st Street and at Pacific Avenue. Similar to Alternative 1, secondary emergency access would be required to the Simpson site in the event that the main bridge is damaged. The options for secondary emergency access that are identified in Alternative 1 (see Section 5.5.13.7) would also be considered under Alternative 2.

The roadways and roundabouts within the project site will be constructed to accommodate fire trucks and other emergency vehicles. No impacts within the site are anticipated.

5.5.15 Potential Effects/Impacts of the No-Action Alternative

5.5.15.1 Roadway Network

Under the no-action alternative, the site will be accessed by the two primary roadways as described in Alternatives 1 and 2 (see Sections 5.5.13.1 and 5.5.14.1), including Pacific Avenue at the north end of the site, and 41st Street to the west. The primary access point will be 41st Street. Similar to Alternatives 1 and 2, the majority of traffic destined to the project site is projected to use this access point.

A specific site plan has not been developed for the no-action alternative, and therefore there was not a detailed plan for where cross-streets would be located, and the number of lanes.

The no-action alternative assumes additional roadway improvements within the larger study area, outside of project site, including an HOV lane in each direction on I-5.

5.5.15.2 Traffic Volumes

The traffic volumes under the no-action alternative would be consistent with the volumes identified under Alternative 2 (see Section 5.5.14.2).

5.5.15.3 Traffic Operations

Level of Service at Intersections outside Project Area
The LOS impacts with the no-action alternative would be consistent with the impacts identified under Alternative 2, as shown in Tables 5.5.3 and 5.5.4 in Section 5.5.13.3 above and Figures 5.5-15 and 5.5-16.

Level of Service at Intersections within Project Area
Because the no-action alternative has not identified a site plan, the only intersection within the project site that could be analyzed is the 41st Street roundabout. Similar to Alternative 2 (see Section 5.5.14.3), during the a.m. peak hour, the roundabout will operate at LOS A, and during the p.m. peak hour, it will operate at LOS B.

5.5.15.4 Freeway Impacts

The freeway impacts are consistent with those identified in Alternatives 1 and 2 (see Sections 5.5.13.4 and 5.5.14.4).

5.5.15.5 Non-Motorized Impacts

The no-action alternative will likely include most of the same non-motorized improvements that were included in Alternatives 1 and 2. Although the no-action alternative would be developed in a more piecemeal fashion, it can be assumed that the City would still require the same trail improvements that are included as part of Alternative 1, in accordance with the City's SPAP. These include the extension of the Lowell Riverfront Trail to Pacific Avenue, the additional north-south trail on the Simpson Mill site, and the proposed east-west connections across the BNSF railroad at Main Street, near Lowell Park, and near 36th Street. However, because this alternative assumes that the development would be phased and constructed by various developers, it is likely that most of the trail and sidewalk improvements would be

developed incrementally, and in a less coordinated manner than under Alternatives 1 and 2. Segments of the trail and pedestrian system would be built as development occurs, and therefore a comprehensive, connected system would be completed only after the site is built out. The piecemeal development of the site, including potentially different developers, would also be more likely to result in a non-motorized system that has less continuity, including different wayfinding elements, appearance and materials. Bicycle and pedestrian connections to the Lowell Community, the Interurban Trail, the Everett Station area and ultimately the downtown area could also be delayed.

5.5.15.6 Transit/Public Transportation Impacts

Under the no-action alternative, transit operations would be similar to Alternatives 1 and 2. However, because the development would occur in a piecemeal fashion, and potentially by different developers, it is likely that portions of the roadway system could be constructed in a phased manner. For example, it is possible that a first phase of development may only be accessed from 41st Street. As development occurs further north on the site, the roadway would ultimately connect to Pacific Avenue at a later period. This potential for phased roadway construction would result in a less coordinated implementation of transit service to the project site. Initial transit service would be accessed from 41st Street, and the route would need to be restructured again at a later date as the road is completed to Pacific Avenue.

5.5.15.7 Fire and Emergency Vehicle Access

Fire and emergency access to the Landfill/Tire Fire site and Eclipse Mill site is adequate with the two primary access points at 41st Street and at Pacific Avenue. Similar to Alternative 1, secondary emergency access would be required to the Simpson site in the event that the main bridge is damaged. As development occurs on the Simpson site, the same options for secondary emergency access that are identified in Alternative 1 (see Section 5.5.13.7) could also be used.

Any future development on the site would be required to construct roadways to accommodate fire trucks and other emergency vehicles. No impacts within the site are anticipated under the no-action alternative.

5.5.16 Construction Impacts

Construction impacts would be similar among all of the alternatives. Under the no-action alternative, development of the site could occur incrementally, and construction impacts, including temporary disruption of services, could occur over a more extended period of time.

5.5.16.1 Traffic Operations

The proposed development will generate additional construction vehicle trips on adjacent arterial streets and primarily I-5. Construction access to the project site will be from 41st Street and from Pacific Avenue, and construction staging will occur on-site. All parking associated with construction staging will occur on the project site, and will not impact adjacent neighborhoods. A worst-case scenario would result in approximately 44,000 round trips for trucks to deliver soils for fill material on-site. After the surcharge period (approximately 18 months), approximately 26,000 round trips would be needed to carry unsuitable soils away for disposal.

5.5.16.2 Non-Motorized Facilities

Construction activities could also result in short-term disruption of the use of sections of the existing riverfront trails for all of the alternatives. Construction-related impacts would be temporary in nature, and would extend through the duration of all construction phases.

Under the no-action alternative, public access connections to existing trails would be delayed, and may not be constructed. Internal design of the project site, buildings, roadway improvements and interconnections between the different geographical areas of the site may be less integrated and pedestrian-oriented.

5.5.16.3 Emergency Response

See Section 5.5.13.7 for the locations of the two fire stations within close proximity to the project site.

Construction of any of the alternatives could result in a temporary increase in accident or service response times because of traffic delays caused by lane closures or other construction-related activity.

5.5.17 Construction Mitigation

Project construction could cause temporary service interruptions to existing utilities. Construction could also temporarily decrease response times of police, fire and medical emergency services if routes are detoured or disrupted.

A traffic management plan would be created prior to construction of the development that would outline steps for minimizing traffic impacts during construction activities, including:

- Providing advanced notice to adjacent landowners and businesses prior to construction to help minimize access disruptions.
- Providing proper road signage and warnings, such as "Truck Access," "Equipment on Road" or "Road Crossings."
- When slow or oversized wide loads are being hauled, using advance signage and traffic diversion equipment to improve traffic safety.

5.5.18 Traffic Impact Mitigation

By the year 2030 ten intersections will operate at LOS E or F with any of the alternatives analyzed. Some of these facilities will require mitigation to offset impacts while others are "built-out", and a lower LOS that does not impact safety may be accepted. The City of Everett's Comprehensive Plan accepts that congestion impacts by future growth will occur within the Urban Growth Area boundaries and all roadways cannot continue to be expanded. The City's Comprehensive Plan encourages a balance of modes, including transit and non-motorized facilities. The proposed project includes non-motorized and transit improvements, as well as mixed land uses that will encourage a greater use of these modes. The traffic estimates prepared are based on a worst-case Single Occupant Vehicle (SOV) scenario for full project buildout, and did not discount for planned improvements in public transportation service. Therefore, in reality, it can be expected that the mode share of non-SOV modes may be higher than was assumed in the traffic estimates. Table 5.5-7 shows intersections operating at LOS E or F under any condition during the a.m. peak hour, while Table 5.5-8 shows these impacts during the p.m. peak hour. Each facility is then described per condition and recommendation.

Table 5.5-7. Intersection Level of Service Summary (A.M. Peak Hour)

			2007 Baseline		2030 Preferred (Alt. 1)		2030 No Action & Alt. 2	
		Control	LOS	Delay	LOS	Delay	LOS	Delay
2	Pacific Ave @ I-5 NB Ramp	3-way Stop	**F**	Err	**F**	293.7	**F**	Err
	w/ signal	Signal			*C	24.4	*B	11.8
4	Pacific Ave @ Broadway	Signal	D	42.0	D	54.1	E	55.4
5	Broadway Ave @ 36th Street	2-way Stop	**F**	Err	**F**	562.5	**F**	891.2
16	52nd Street @ 2nd Avenue	4-way Stop	C	19.0	**F**	100.4	**F**	82.2
	w/ signal	Signal			*C	27.2	*C	26.5

Notes:
* With Improvements

Table 5.5-8. Intersection Level of Service Summary (P.M. Peak Hour)

			2007 Baseline		2030 Preferred (Alt. 1)		2030 No Action & Alt. 2	
		Control	LOS	Delay	LOS	Delay	LOS	Delay
2	Pacific Ave @ I-5 NB Ramp	3-way Stop	B	12.3	**F**	Err	**F**	Err
	w/ signal	Signal			*D	41.4	*C	32.7
4	Pacific Ave @ Broadway	Signal	D	53.8	**F**	99.7	**F**	92.7
5	Broadway @ 36th Street	2-way Stop	**F**	Err	**F**	Err	**F**	Err
8	41st Street @ 3rd Avenue	Signal	A	7.6	**E**	75.2	**F**	128.3
9	41st Street @ I-5 SPUI	Signal	D	46.9	**E**	55.2	**E**	57.6
12	41st Street @ Colby Avenue	Signal	D	42.0	**E**	76.9	**E**	79.6
13	41st Street @ Rucker Avenue	Signal	**E**	68.4	**E**	74.0	**E**	64.5
14	52nd Street @ South Broadway	Signal	**E**	58.2	**F**	80.2	**F**	193.1
	w/ NBLT, NBRT, SBLT	Signal			*D	50.9	*D	39.9
15	52nd Street @ 3rd Avenue	3-way Stop	D	27.0	**F**	237.5	**F**	255.9
	w/ signal	Signal			*B	14.1	*C	29.2
16	52nd Street @ 2nd Avenue	4-way Stop	C	21.4	**F**	479.8	**F**	443.5
	w/ signal	Signal			*D	45.6	*C	37.6

Notes:
* With Improvements

5.5.18.1 Pacific Avenue at I-5 Northbound Off-Ramp (Intersection 2)

This intersection is controlled with three stops at the west, north and east legs, while the south leg (freeway off-ramp) is uncontrolled. There is currently congestion occurring at the intersection of Pacific Avenue/I-5 northbound off-ramp during the a.m. peak hour, resulting in a LOS F. The high northbound left-turn volumes from the off-ramp result in a delay of over 50 seconds in the eastbound and westbound directions.

None of the approaches fail during the 2007 p.m. peak hour. However, by the year 2030, all of the alternatives result in a LOS F during both the a.m. and p.m. peak hours. Because this intersection currently fails in the a.m. peak, it would be feasible to install a signal at the same time that a planned signal at the railroad (east of this intersection) is installed, and a proportionate cost could be applied toward proposed developments.

This intersection has been identified for improvement in the City's Comprehensive Plan as part of overall improvements to I-5 downtown interchanges. The six-year TIP (2006-2011) identifies design for these improvements, and the construction is planned for the mid-term (2012-2017).

5.5.18.2 Pacific Avenue at Broadway (Intersection 4)

A number of intersections are expected to be at ultimate capacity by the year 2030. The City has determined that these intersections are at full buildout and will not be expanded in the future. This intersection is considered at ultimate capacity as identified by the City, and therefore no improvements are warranted.

5.5.18.3 Broadway at 36th Street (Intersection 5)

The City of Everett (Public Works Department) had requested that this intersection be analyzed as part of the EIS. This intersection temporarily had a signal during the construction of the 41st Street SPUI, as mitigation to divert traffic. The signal has since been removed, and the intersection is controlled via a stop at the east and west approaches. These approaches are expected to operate a LOS F in 2030 with or without the proposed development. It is expected that consistently delayed traffic on the minor approaches will detour to alternate routes where signals are provided, rather than to delay the major movements on Broadway with another signal. The intersection operates consistently with other local streets that intersect Broadway and does not warrant any improvements.

5.5.18.4 41st Street at 3rd Avenue (Intersection 8)

This intersection is currently underutilized (LOS A) as it was designed and built to accommodate development of the Riverfront area with a safe overcrossing of the BNSF tracks. In 2030, under full buildout it operates at LOS F with Alternative 2/No Action and LOS E under the Preferred Alternative. The original design of the intersection assumed the closure of the Lowell-Snohomish River Road BNSF track crossing and that most traffic would be traveling in an east- west pattern. With the planned Lowell-Snohomish River Road overcrossing, more regional traffic is assumed to be using the south leg of the intersection, resulting in a degradation of LOS.

The City's Comprehensive Plan assumes that future congestion will occur on major arterials and that a continual widening of roads will only add to the congestion.

5.5.18.5 41st Street at I-5 SPUI (Intersection 9)

This intersection operates at LOS E with all alternatives in 2030 with the preferred alternative operating with a lower average delay. Future urban growth is expected to impact the 41st Street freeway corridor and no improvements are recommended for this facility.

5.5.18.6 41st Street at Colby Avenue (Intersection 12)

This intersection operates at LOS E with all alternatives in 2030. The preferred alternative operates at a lower average delay than Alternative 2/No Action. Future urban growth is expected to impact the 41st Street freeway corridor and no improvements are recommended for this facility.

5.5.18.7 41st Street at Rucker Avenue (Intersection 13)

This intersection currently operates at LOS E and will continue at LOS E with all alternatives in 2030. Future urban growth is expected to impact the 41st Street freeway corridor and no improvements are recommended for this facility.

5.5.18.8 52nd Street at South Broadway (Intersection 14)

The signalized intersection currently operates at a LOS E, with a 58.2-second delay. By 2030, the alternative will operate at a LOS F during the p.m. peak hour with either alternative. The addition of a northbound left-turn lane, northbound right-turn lane and southbound left-turn lane improves the LOS to D, with a 50.9-second delay.

The City has identified in its Comprehensive Plan a project to improve South Broadway between SR 526 and 41st Street. The project includes planning and design under the City's six-year TIP (2006-2011), and construction by the year 2017. Improvements to the intersection of 52nd Street and South Broadway would be constructed as part of those improvements. Because the intersection is part of the future planned improvements along this Broadway Corridor, these improvements could be paid for through developer-contributed Traffic Impact Fees.

5.5.18.9 52nd Street at 3rd Avenue (Intersection 15)

This intersection is a three-way stop that currently operates at a LOS B during the a.m. peak hour and LOS D in the p.m. peak hour. By the year 2030 the intersection will operate at a LOS D in the a.m. peak hour and a LOS F during the p.m. peak hour with either alternative.

The installation of a low-profile signal at this intersection improves the p.m. peak hour LOS to a B with Alternative 1, and a C with Alternative 2 and the no-action alternative, with minimal impacts to the neighborhood.

The City's Comprehensive Plan does not currently designate 52nd Avenue in this area as an arterial. The City should evaluate whether a signal or other improvements, which might draw higher traffic volumes, would be beneficial at this location on a neighborhood street. A proportionate cost of a signal could be applied toward the development.

5.5.18.10 52nd Street at 2nd Avenue (Intersection 16)

This four-way stop intersection currently operates at a LOS C during both the a.m. and p.m. peak hours. However, by the year 2030 the intersection operates at LOS F under all alternatives.

During the a.m. peak, the installation of a signal improves the LOS to D with Alternative 1, and C under Alternative 2 / No Action. The signal improves the p.m. peak hour LOS to a D under all alternatives.

The City's Comprehensive Plan includes a project to develop a Lowell Bypass or Lenora grade separation over the BNSF railroad. This project includes design in the City's six-year TIP (2006-2011), and construction by the year 2017. The intersection of 52nd Street at 2nd Avenue is within close proximity to the proposed project. The City has since agreed not to pursue the bypass, but to proceed with the grade separation project. A signal at this intersection should be constructed as part of that project. However, a proportionate cost of the signal could be applied toward the development.

Mitigation for the traffic facility impacts listed above has been negotiated with the City of Everett and agreed upon improvements will be phased in with development of the project per proportionate share of impacts.

5.5.18.11 Other Potential Mitigation Measures

In addition to the mitigation measures above, the City could require private property owners along the new road through the Eclipse Mill site to pay a proportionate cost of the improvements. Transportation mitigation fees per EMC 18.40 will also be required.

5.5.19 Unavoidable Adverse Impacts on Traffic Operations

Unavoidable adverse impacts are defined as those that meet the following two criteria:

- There are no reasonably practicable mitigation measures to eliminate the impacts; and
- There are no reasonable alternatives to the proposed project that would meet the purpose and need of the action, eliminate the impact, and not cause other similar or adverse impacts.

As stated in section 5.5.18, there are a number of intersections that are "built-out", and a lower LOS that does not impact safety may be accepted. The City of Everett's Comprehensive Plan accepts that congestion impacts by future growth will occur within the Urban Growth Area boundaries and all roadways cannot continue to be expanded, but rather a balance of modes, including transit and non-motorized facilities is encouraged. The following intersections are considered "built out" and will continue to be impacted by future growth. There are no reasonably practicable mitigation measures to eliminate the impacts.

- Pacific Avenue at Broadway (Intersection 4)
- 41st Street at 3rd Avenue (Intersection 8)
- 41st Street at I-5 SPUI (Intersection 9)
- 41st Street at Colby Avenue (Intersection 12)
- 41st Street at Rucker Avenue (Intersection 13

5.6 PUBLIC SERVICES AND UTILITIES

5.6.1 Methodology

The following documents were reviewed for this part of the study: (1) sewer, water, and drainage charts; (2) existing background information; and (3) environmental studies of the project site or area. Field

review of existing services was conducted, and public service and utility providers were consulted for each alternative.

5.6.2 Existing Conditions/Affected Environment

5.6.2.1 Police, Fire and Emergency Services

The Everett Police Department, located at 3002 Wetmore Avenue, would provide police protection to the project site. The department has 181 commissioned law enforcement officers, including 16 to 20 officers and three supervisors on each patrol shift. They respond from two locations: north and south precinct stations. Police protection for the project site will be provided from the north precinct, which is the closer precinct to the project site.

The City of Everett Fire Department would provide emergency response for fire and emergency medical services, hazardous materials incidents and other emergencies. The Fire Department employs 190 career personnel, including 181 firefighters, 37 of whom are also paramedics. It operates a four-platoon department with a minimum of 33 personnel on-duty 24 hours per day, seven days per week. Emergency response would primarily be from units in the north end of the City. Emergency medical services include three medic Advanced Life Support units and two Basic Life Support aid units, as well as having Basic Emergency Medical Technician (EMT) skills for all firefighters on all apparatus.

5.6.2.2 General Municipal Services

The City of Everett is the largest city in Snohomish County. With a population of over 100,000, the City serves as the center for governmental services and cultural activities for the county, as well as providing many recreational activities and programs.

The City provides a full range of municipal services to its residents, businesses and institutions. Municipal services include a public library system, parks and recreation programs, senior citizen services, animal control, public facilities maintenance and other typical municipal services. The project site is located approximately 2.5 miles from Everett's City Hall and the main branch of the Everett Public Library. The Everett Events Center, located at Broadway and Hewitt, is approximately 2.3 miles from the project site. This multi-purpose facility includes a visitor center and conference center providing a broad range of entertainment activities including concerts, indoor hockey, football, basketball, exhibitions and trade shows. A number of parks, public trails and recreation activities are also located in the immediate vicinity of the project site, and the existing Riverfront Trail extends through a portion of the site. (See Section 5.3 for a summary of proposed public facilities, including parks, recreation, open space and public access trail extensions and improvements.)

5.6.2.3 Schools

The project is located within the Everett School District, which serves a student population of over 18,000 and includes 26 schools: 16 elementary schools, 5 middle schools and 5 high schools.

Under current Everett School District area boundaries, the schools that would likely serve the project site are:

- Garfield Elementary School (students from the area from 36th Street to Pacific Avenue)
- Jackson Elementary School (students from the area between 36th and 41st Streets)
- Lowell Elementary (students from the area south of 41st Street)

- Evergreen Middle School
- Everett High School

The Everett School District has recently completed a Middle School boundary change that will affect the project site and is scheduled to go into effect in the autumn of 2008. This change will require that middle school students living north of 41st Street attend North Middle School, and students living in the area south of 41st Street still attend Evergreen Middle School.

In 2006, voters passed a $198.9 million construction program capital bond. The School District is one year into that construction program. The schools that will serve the Riverfront Redevelopment project are not predicted to grow in the near future.

5.6.2.4 Utilities

Water

The project site is served by the City of Everett Utility Department for water and wastewater. The current water lines are as follows:

- An 8-inch cast-iron water main is within the 36th Street right-of-way from Smith Street. The 8-inch main is reduced to a 6-inch water line just west of the Eclipse Mill Road right-of-way. A 6- to 8-inch water main is interconnected to the distribution system north of the project site, located within the Eclipse Mill Road right-of-way.
- A 16-inch water line has been extended to the westerly edge of the site within the 41st Street right-of-way.
- An 8-inch water line, located at Pacific Avenue and Chestnut Street, could serve the project site.

Water lines currently do not extend to the Simpson Pad. Based on proposed uses, fire flow requirements will determine the pipe sizes for the water mains for the project. City water service to the project site will be capable of delivering 4,000 gallons per minute, which is the largest fire flow requirement set by current City-accepted building codes.

Sanitary Sewer

Within 36th Street, the City owns and operates several existing wastewater pipelines. The South End Interceptor, a 36-inch gravity force main, is located along the western site boundary and enters into 36th Street immediately west of the project site (within the BNSF right-of-way). This interceptor is then connected to both a 36-inch line and a 30-inch line (from west Everett) within 36th Street, which further drain easterly into a 48-inch interceptor within Eclipse Mill Road.

Other connections to the 48-inch line at Eclipse Mill Road are two 8-inch force mains from the Landfill/Tire Fire site. Along the entire eastern boundary of the Landfill/Tire Fire site are a perimeter leachate collection trench and force main, and an 8-inch force main that carries the 6-month surface water storm flow from the 41st Street overpass.

Also within 36th Street is a sewer line that carries combined sewer and stormwater flows from the downtown core of the City. This is a 54-inch pipe encased in a 60-inch brick line that runs the full length of 36th Street along the project site. Once in Eclipse Mill Road, the line switches to a 72-inch concrete gravity main. These interceptors extend to the north and convey combined flows to the City's wastewater treatment facilities.

The existing 54-inch combined stormwater/sewer line located in the 36th Street right-of-way has an overflow outfall to the Snohomish River at the east end of the 36th Street right-of-way. This outfall is permitted to have one overflow event per year.

Storm Drainage
Surface water and stormwater treatment are addressed in Sections 4.3 and 4.4 of this report.

Electricity
The Snohomish County Public Utility District (PUD) serves the project site. Overhead electrical service currently exists on 36th Street and extends to the animal helter on the site. Existing overhead electrical lines extend approximately to the site boundary on 41st Street.

The area is presently served by the Everett substation 12-kilovolt (kV) distribution system. The existing Everett and 52nd Street substations and associated 12kV circuits serve approximately 7,750 customers in this area. The Everett and 52nd Street 12kV circuitry provides electric service to commercial and industrial customers in the eastern part of the City and the residential loads south of the city. The project site is potentially served by the Everett substation with backup from the 52nd Street substation.

Telecommunications
Verizon serves the project site with telecommunication services. Currently, telephone service extends to the animal shelter on the site. No other telecommunication services exist on the project site. The site is served by overhead lines on power poles located on 36th Street. Fiber optic lines are in the vicinity, but services are not currently available to the project site.

Verizon will provide telecommunication facilities and services to serve the proposed development. Copper telecommunication service would be extended, and fiber optic service may be available for development phases.

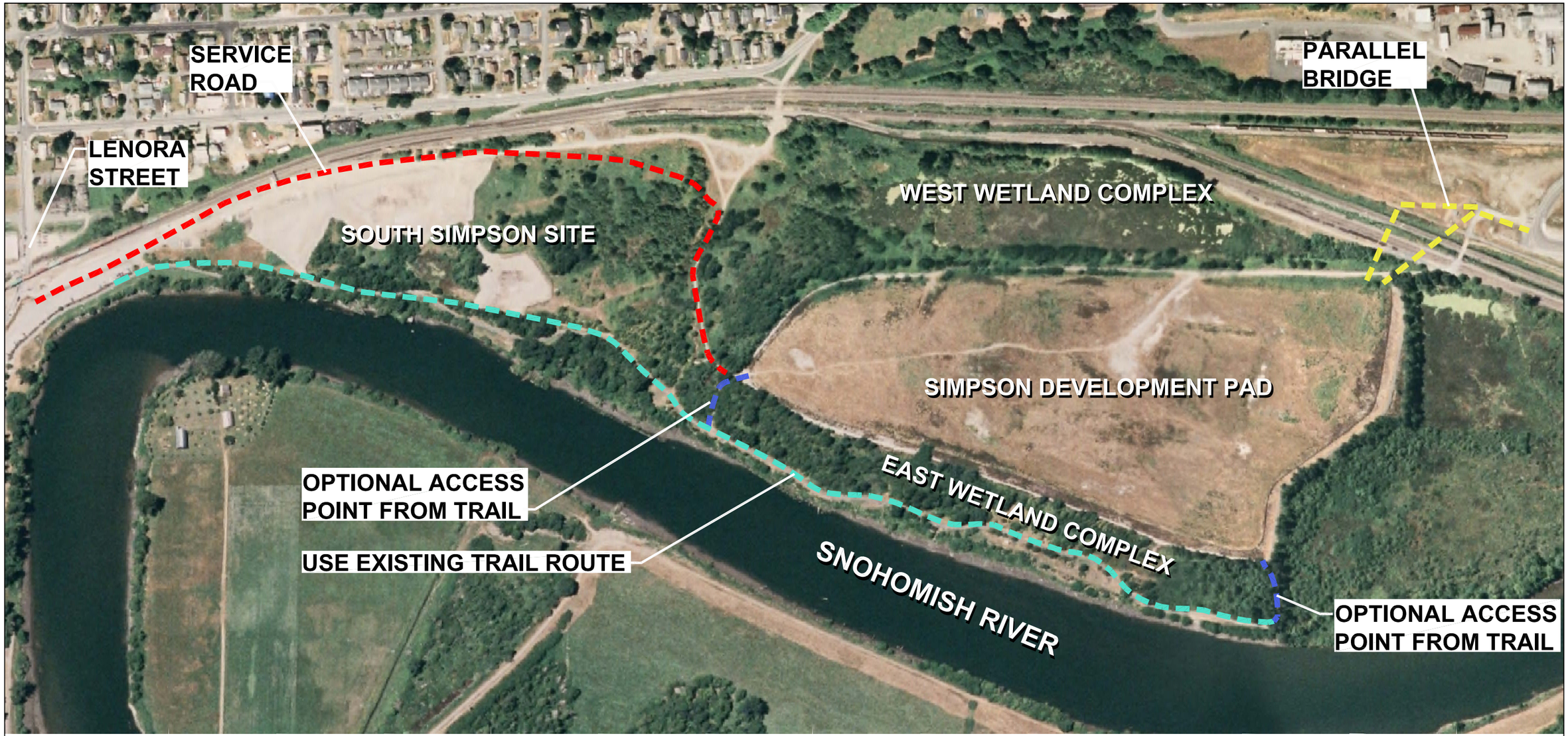
Solid Waste
Rubatino Refuse Removal provides solid waste collection services for the project site, operating in coordination with the City of Everett, and under the control of the Washington Utilities and Transportation Commission. The Roosevelt Regional Landfill in Klickitat County is the primary location for disposal of City and Snohomish County solid waste. Recycling services are available through Rubatino Refuse, but are not mandatory.

Natural Gas
Puget Sound Energy (PSE) provides natural gas service in the City. An existing 2-inch-diameter line currently serves the animal shelter at the north end of the project site. No other natural gas lines are located within the project area. The existing 2-inch line does not have adequate capacity to serve the proposed project, necessitating upgrades to PSE's system to accommodate the expected load growth.

5.6.3 Impacts Common to the "Action" Alternatives

5.6.3.1 Construction

Police, Fire and Emergency Services
An accident or medical incident that occurs during construction could require fire suppression and/or emergency medical services response, and/or police services. Theft, vandalism or other security needs could result in a small increase in the demand for police services during construction of the project. Fire and police emergency access during construction must be in accordance with the City's Fire Code. Alternatives for fire access are illustrated in Figure 5.6-1.



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Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Sources:
Aerial photo obtained from NAIP Imagery 2006.

W N E S

180 0 180
Feet

Alternate for Fire Access

Everett Riverfront Redevelopment
Everett, Washington

GeoEngineers

Figure 5.6-1

General Municipal and Governmental Services
It is anticipated that the project will be constructed in phases over a multi-year period, as shown in Table 2.2-1, Everett Riverfront Milestone Schedule, of Section 2.2. For all phases of development and during construction of the project, a substantial amount of permitting and inspection services will be required from the City. Utilities will extend into areas subject to shoreline jurisdiction and will be included in required shoreline permits. Permitting will also require review by other agencies with jurisdiction.

Schools
Project construction workers would most likely be drawn from the large existing Snohomish County and North King County labor markets. Relocation of workers from other areas is not anticipated. Therefore, no increased school enrollment associated with construction workers and their families is anticipated.

Utilities
Site redevelopment will require coordination with all affected utility providers regarding the location of proposed structures, utilities and site grading. Construction could result in temporary disruption of utility services to existing users in the immediate vicinity of the project site.

All utilities within the Landfill/Tire Fire site must be located and installed in a manner that is consistent with requirements of the Consent Decree. Requirements of the Consent Decree apply to water lines, sanitary sewer lines, storm sewer lines, manholes and maintenance access, and electrical, telephone and gas lines (see section 5.7, Environmental Health and Hazardous Materials). Natural gas facilities would need to be extended to provide additional capacity to serve any of the alternatives for the Riverfront Redevelopment project. It is anticipated that a larger-diameter line will be installed in the vicinity of 36th Street, extending the natural gas supply system to the east and south. Details of the upgrade – including size and location – will be determined upon completion of load calculations and service agreements.

Temporary impacts such as noise, dust and water quality degradation would occur during construction. Temporary impacts are anticipated for each phase of construction. However, these impacts are not anticipated for off-site uses or areas because of the separation and distance of the project site from potentially sensitive off-site uses, and because of proposed mitigation. Construction noise and dust would potentially impact on-site trail users. Additionally, uses constructed in early phases of the project could be impacted by construction impacts generated by later phases of the project.

Solid waste generation will result from the demolition of the existing animal shelter, and potentially from demolition of other structures and other construction activities. Construction activities will emphasize recycling/waste reduction as part of the proposal and using sustainable building and development practices such as LEED. Disposal of construction and demolition debris that is not otherwise recycled must be at an approved landfill.

5.6.3.2 Operation

Police, Fire and Emergency Services
The construction of new residences and commercial buildings on the project site will result in an increased need for police, fire and emergency services. Impacts of the proposed mixed-use redevelopment will result primarily from the increased population, employment, customers and visitors. Impacts of the different alternatives are described below.

The new 41st Street Overcrossing and internal street system proposed as part of the Riverfront Redevelopment project would provide routine emergency vehicle access to all portions of the project site. Response times are anticipated to be good. Under any of the action alternatives, the Everett Police

Department does not anticipate substantial impacts or resource constraints on their staffing levels, equipment or facilities.

The City of Everett Fire Department anticipates impacts primarily from the increased population, employment, customers and visitors to the site. The buildout of the commercial and residential areas is expected to result in an increase of five emergency fire department responses per day. Impacts generated by the project are within the growth and development projections included in the City's Comprehensive Plan. Access and response times to the project site are anticipated to be within accepted standards, based on the direct access via the 41st Street overpass, and the internal roadways and emergency access from a road that connects from the Rotary Park parking area to the southeast corner of the Simpson Pad to be improved as part of the project.

A private contractor will be hired to maintain the landfill gas collection systems and associated alarms installed as part of the project (described in Section 5.7). This will not add burden to the fire department although the gas system operators will coordinate with the fire department in planning for emergency response actions.

Construction of large concrete buildings or high buildings can block radio signals. The entire project must support 700/800 MHz emergency radio communication for the police and fire departments.

General Municipal and Governmental Services

The increases in population, employment, customers and visitors to the site are anticipated to create some additional need for general municipal services from the City as the phases of development are built. The increases resulting from the project would result in a small percentage of the citywide demand. Therefore, the City does not anticipate substantial impacts to its resources or general service staffing levels or equipment. Existing service levels would likely remain the same. Long-term maintenance of the park and trail facilities will be required.

The existing animal shelter, located on the Landfill/Tire Fire site, would be demolished, and the shelter operations will be relocated by the City. Additionally, the existing public works storage yard located at the north end of the project site will be relocated by the City. The City will carry out separate SEPA review processes when specific proposals to relocate these facilities are identified. The Diversified Industries building may be demolished.

Schools

See Section 5.6.4, Impacts of Different Alternatives, below.

Utilities

The City's Water and Sewer System Ordinance (Ordinance #1998-94) includes water and sewer flow rates generated by various specific land uses, including residential uses and retail, restaurant, hotel and office uses. Projected water demand and sewer flow tables for the project are based upon the flow rates contained in the City's ordinance.

Water

Water demand for the most intensive development scenario (Alternative 1, the preferred alternative) is estimated at about 491,195 gallons per day at the completion of all the phases of development. Water demand is anticipated as part of the City's Water Plan. Water distribution systems for domestic use and fire flow adequate to serve proposed uses will be developed for each phase of the project. Water demand would be reduced if the projected square footage of restaurant use (the most intensive projected water use) is reduced as the project is built out.

Utilities under the main road through the Landfill/Tire Fire site will include at least a 12-inch water main with domestic and fire services extended to the back of the sidewalks (Riverfront Property Disposition Agreement).

Sanitary Sewer

Some evaporation and site water usage will somewhat reduce sewer flow discharge from the project site as compared to total water demand for the project. Therefore, after all phases of development are completed, under the most intensive development scenario, sewer flows from the project are conservatively estimated to be approximately 491,000 gallons per day. Anticipated flows are within the flows projected by the City's Sewer Plan, and the City's treatment system has the capacity to handle projected flows.

Utilities under the main road through the Landfill/Tire Fire site will include a sewer main with adequate side sewers sized to accommodate flows from the uses proposed for the project (Riverfront Property Disposition Agreement).

The extension of sewer and water service would be coordinated with the City's Utilities section for each phase of development. Generally, utility improvements would be located within rights-of-way for streets and roadways within the project site.

Storm Drainage

Surface water impacts and surface water treatment are addressed in Sections 4.3 and 4.4 of this report.

The City will construct a pump and piping system on the eastern side of the Landfill/Tire Fire site to accommodate the transmission of sanitary sewer and 6-month stormwater from development on the Landfill/Tire Fire site (Riverfront Property Disposition Agreement).

Electricity

Increased demand for electricity would be generated by all three alternatives. The total load demand addition for the project is estimated to be approximately 11,000 kilovolt-amperes (kVA). Energy conservation measures will be included as part of the proposal and using sustainable building and development practices such as LEED program, and will help reduce the total electricity demand. With the addition of the project loads, the 12kV circuit that will serve the project site is predicted to be operating beyond its current capacity. Therefore, upgrading the system is necessary.

An "Electrical Distribution System Study for Service to Everett Riverfront Project" was completed in May 2006. The Everett Riverfront Study report includes the recommended plan for electrical service for the proposed project, and a summary of the electrical system analysis.

The recommended plan of service includes three elements: (1) an on-site electrical service "backbone;" (2) off-site improvements to the existing 12kV facilities serving the area; and (3) off-site facilities required to provide contingency backup during maintenance or outage conditions.

The recommended plan of service identifies 12kV electric system upgrades that are required to provide reliable electric service to the project loads. Recommended improvements include the addition of a new circuit from the Everett substation, the construction of approximately 7,000 feet of 12kV overhead distribution conductors from the existing circuits to the project site, and the addition of approximately 9,200 feet of underground backbone system with approximately 800 feet of directional bore within the project site. The planned work would provide adequate capacity to serve the project loads during normal and contingency operating conditions. In addition to the extension of the 12kV feeder, several new 12kV

distribution switches would be installed at various locations. The additional switches and the rebuild of the 12kV overhead lines would strategically provide load backup capability between the Everett and 52nd Street substation circuits during an emergency or routine maintenance. The 12kV feeder typically is mounted on 40- to 50-foot-high poles, with 3-phase conductors (3 wires) mounted on a cross-arm approximately 7 to 10 feet long, and a neutral wire mounted lower on the pole. Depending upon the design, 12kV switches are approximately 2 feet long by 6 inches wide and mounted on a cross-arm, or approximately 7 feet long by 6 inches wide and mounted on a cross-arm.

With the construction of the recommended system upgrades, the area circuitry will have year-round normal and contingency backup capacity when the project loads are added to the existing area load (Electrical Distribution System Study, May 2006).

In addition to the system improvements summarized above, 12kV line extensions from the backbone to various building transformers would be required as the project is constructed. It is anticipated that the 12kV PUD lines into the project site will be overhead, and new electrical distribution lines on-site will be underground.

Telecommunications

Additional telecommunication services will be required to serve new land uses under any of the alternatives. Verizon will provide additional service to the project site, and no impact to the service provider is anticipated. Telecommunication services would be provided as each development phase is permitted. Fiber optic service may be available to the project site.

Solid Waste

Under any of the alternatives, the project would generate additional demand for solid waste services, including solid waste collection, transportation, recycling services and landfill capacity. Solid waste is collected by Rubatino Refuse, with all disposal through Snohomish County Public Works, and ultimately at Regional Disposal in Roosevelt, Washington (Klickitat County). Under the no-action alternative, the demand for these services would be postponed.

Natural Gas

Under any of the alternatives, the project would generate additional demand for natural gas. The existing natural gas service to the project site must be upgraded, including the possibility of installing an additional natural gas pipeline within the BNSF right-of-way and I-5. Natural gas facilities would need to provide additional capacity to serve any of the alternatives for the project.

Natural gas lines sufficient to serve the project would be installed to serve each phase of the development. Installation of natural gas service lines would be coordinated with PSE as each development phase is permitted.

5.6.4 Impacts of Different Alternatives

5.6.4.1 Police, Fire and Emergency Services

Alternative 1 (Preferred Alternative)

Under the preferred alternative, the increased demand for police, fire and emergency services would be generated by the addition of approximately 2,881 residents and approximately 2,200 employees, and an increase of and average of 26,270 customers and visitors per day during peak site use.

A secondary emergency access must be provided to the proposed residential area on the Simpson Pad in accordance with Appendix D of the City of Everett Fire Code. The access must be a 20-foot-wide all-

weather surface and must meet load and turning radius requirements of the Fire Department and Fire Code. Construction of this access may result in additional impacts to wetlands and buffers, which will be mitigated. See Section 4.5 for a discussion of the impacts and mitigation related to impacts on wetlands. (See Section 5.5 of this report for further discussion of emergency access alternatives.)

Alternative 2 (Office Use of Simpson Pad)
Under Alternative 2, the increased demand for police, fire and emergency services would be generated by the addition of approximately 2,800 employees, and an increase of an average of 26,270 customers and visitors per day during peak site use. Because the Simpson Pad would be developed with office uses rather than residences, Alternative 2 would result in a smaller need for police services as compared to the preferred alternative. The demand for Fire Department emergency response is expected to be the same as Alternative 1, except that it would be concentrated more during business hours than the all-hours emergency responses for residences with a mature population.

Alternative 3 (No-Action Alternative)
Under the no-action alternative, the demand for public services on the site would likely be postponed. The impacts would at a minimum be similar to Alternative 2 because the future user or users would be required to develop the site in conformance with the adopted Comprehensive Plan and vision statement for the riverfront area. Because the City of Everett is expected to accommodate a certain amount of the regions growth, development is anticipated to be greater in other areas of the city if development of the project site is delayed. This could result in greater demand for public services.

If future users proposed residential uses on the project site, impacts would be similar to Alternative 1.

5.6.4.2 Schools

The Everett School District develops a standard "Student Generation Rate" table, which projects the student generation ratio for each type of housing. The current January 2007 table includes a student generation ratio in the Everett area as follows:

Housing Type	Student Generation Ratio
Single Family	.592
Multifamily 0-1 Bedroom	.023
Multifamily 2+ Bedroom	.264

Alternative 1 (Preferred Alternative)
Based upon the current Everett School District standard student generation ratios, up to approximately 410 new students would result from the preferred alternative. This is the most intensive residential buildout scenario anticipated, and assumes 1,400 residential units with almost 75 percent of the multi-family units assumed to be two-bedroom or more. The number of students generated would be substantially reduced as the number of one-bedroom or smaller (studio) apartments or condominiums increases. If the multi-family residential units are designed and marketed to meet the lifestyle needs of older and younger adults, which typically have few children in their households, the student generation rate would be substantially reduced. Actual buildout of the project, and the mix and size of units, will depend upon market demand. Therefore, if the multi-family units are designed and marketed as studio or one-bedroom apartments to meet the lifestyle of young or old adults, the student generation rate, and the total number of school-age children that reside within the redeveloped project site, may be substantially reduced from the standard projected 410 students, which would result from the most intensive development scenario of 1,400 residential units.

Students residing within the project area would attend the schools indicated above in the Existing Conditions subsection (Section 5.6.2.3). The schools that will serve the project are not predicted to grow in the near future. It is likely that adequate capacity for students generated by the project will exist for the Elementary and Middle Schools that will serve the site (Garfield, Jackson and Lowell Elementary Schools, and Evergreen Middle School). Everett High School, however, is currently operating near its capacity, and it is possible that additional capacity may need to be provided at this school in order to house the additional high school students that will be generated by the project. Appropriate school mitigation will be provided by the applicant to mitigate the impacts of the project (see Section 5.6.5, below).

Alternative 2
Under Alternative 2, offices would be located on the Simpson Pad, and a mix of commercial (office/retail) uses would be located on the Landfill/Tire Fire site and the Eclipse Mill site. No school district impacts are anticipated under Alternative 2.

Alternative 3 (No-Action Alternative)
Under the no-action alternative, the development of commercial/residential spaces and associated public amenities would likely be postponed because it would depend on a future user or users that are not known at this time. Impacts on police, fire, emergency services, schools and utilities would be postponed, and would depend upon the mix of land uses proposed by a future user or users.

Because of the existing Comprehensive Plan designation and vision, under the no-action alternative, future impacts on public services and utilities would be addressed when a zoning change and/or a Planned Development Overlay (PDO) zone is proposed by a future user.

5.6.4.2 Utilities

Differences in impacts on utilities among the three alternatives relate to water.

Alternative 1 (Preferred Alternative)
Under the most intensive development scenario, water demand is projected to be approximately 491,195 gallons per day, which the City has the current capacity to treat and convey to the project site.

Sewer discharge is estimated to be approximately 491,000 gallons per day under the most intensive development scenario (see the discussion of operation impacts on water utilities in Section 5.6.3.1, above). Sewer flows fall within the range of growth anticipated by the City's Sewer Plan, and the City's treatment plant and conveyance systems have the capacity to handle projected flows.

Alternative 2
Water demand under Alternative 2 is projected to be approximately 407,837 gallons per day, and sewer discharge would be slightly less than that.

Alternative 3 (No-Action Alternative)
Impacts on utilities would be postponed, and would depend upon the mix of land uses proposed by a future user or users. However, impacts are anticipated to be at least at the level of Alternative 2.

5.6.5 Mitigation Measures

5.6.5.1 Features Incorporated as Part of the "Action" Alternatives

- Construct a well-designed internal street system that provides fast and efficient police, fire and emergency vehicle access to all areas of the project site.
- Develop streets, sidewalks, walkways, bicycle and pedestrian paths and public spaces designed to promote public safety and visibility for residents, employees, site visitors and police.
- Design all parking areas and public spaces with specially designed non-glare security lighting to provide for security.
- Use sustainable building and development practices such as LEED program. Programs like LEED provide guidance on measures intended to reduce impacts on utility systems and providers, including, but not limited to:
  - Design and construction of green buildings;
  - Energy efficiency in buildings;
  - Water efficiency in buildings to "reduce environmental impacts of water consumption;"
  - Heat island reduction to reduce impacts to the natural environment and reduce required energy for cooling;
  - Infrastructure energy efficiency, reducing energy consumption of common public amenities such as street lighting, lift stations, etc.;
  - Stormwater management to reduce loss of soil, sedimentation of stormwater, and prevent air pollution from dust and particulate matter; and
  - Construction waste management, recycling construction waste where feasible.
  - Incorporation of neighborhood standards.
- Provide a looped water distribution system and fire hydrants throughout the project site to provide adequate fire flow, and provide adequate fire flow for each development phase as the project is built out.
- Provide a surface water drainage system with adequate capacity throughout the project site, and as part of each phase of site redevelopment.
- Coordinate with the PUD to provide needed electrical system upgrades and new facilities adequate to serve each phase of the project, and to maintain existing electrical service to the area.
- Coordinate with all utility service providers regarding the location of proposed structures, utilities and site grading during the construction of each phase of redevelopment.
- Comply with requirements of the Consent Decree for all activities on the Landfill/Tire Fire site, including methods for installation of all utilities and services.
- Use best management practices to mitigate water quality impacts during construction.

5.6.6 Applicable Regulations and Commitments

- Comply with the City's Land Use Code and related development regulations, including the payment of any required school impact mitigation fees

- Provide a Master Plan, PDO Zone and Development Agreement consistent with the policies of the Comprehensive Plan and provisions of the Land Use Code (see Section 5.1.4.1).
- Meet or exceed open space and recreation requirements of the Multiple Family Zone and design guideline section of the City's Land Use code, and meet or exceed the open space requirements of the City's Land Division Ordinance for any proposed land division. Each of the action alternatives will provide an array of new amenities including: wetland enhancements; new shoreline access points; expanded pedestrian/bicycle paths and trails; nature interpretive viewpoints; new recreation, open space and park areas, and multi-use public spaces for outdoor gathering; and potentially a new multi-purpose boat dock (see Section 5.3). Design concepts will be included in the proposed PDO.
- Coordinate school mitigation fees with the Everett School District as each construction phase proceeds, and include any appropriate mitigation fees in a voluntary mitigation agreement to be negotiated between the applicant and the School District. The school mitigation agreement could potentially be included in the PDO or Development Agreement.
- Meet or exceed the City's multi-family residence design guidelines and standards. The project will meet the neighborhood design standards' emphasis on crime prevention through design.
- Use sustainable building and development practices such as the LEED system intended to provide high-quality design for a livable environment, including but not limited to:
  - Compact development promoting livability and pedestrian traffic;
  - Design of buildings to shape walkable streets;
  - Pedestrian-oriented streets; and
  - Open Community, ensuring that streets, sidewalks and public spaces are available for public use and not enclosed within a gated enclave.
- Comply with City of Everett Building and Fire Codes.
- Comply with City of Everett Utility system standards and applicable connection fees.
- Demolish existing on-site buildings in accordance with approved hazardous material abatement methods, and dispose of debris at approved solid waste facilities.
- Comply with the Consent Decree for construction and development activities on the Landfill/Tire Fire site
- Obtain Ecology Section 401 Water Quality Certification and general or individual National Pollutant Discharge Elimination System (NPDES) stormwater construction permit(s).

5.6.7 Other Potential Mitigation Measures

- During construction, implement security measures such as site lighting, fencing, on-site surveillance, etc. to reduce potential criminal activity.
- Provide a multi-phased site development process that will enable additional needed public services and utilities to be provided as necessary to support each development phase.
- Encourage establishment of programs for recycling waste materials generated by operation of the project.

5.6.8 Unavoidable Adverse Impacts

- No unavoidable impacts related to public services or utilities are anticipated.

5.7 ENVIRONMENTAL HEALTH AND HAZARDOUS MATERIALS

5.7.1 Methodology

Areas known to contain hazardous or regulated material are summarized in this section, as are mitigation alternatives for handling these materials. Potential effects of the project were evaluated based on the location of proposed development activities, and how they may impact areas that have known or suspected contaminated media.

With respect to the Landfill/Tire Fire site, the City entered into a Consent Decree and Cleanup Action Plan (CAP) with Ecology for that portion of the project site. The Consent Decree and CAP specify certain construction methods and other protective measures to be used during future development of the site. It also specifies long-term monitoring and contingency measures. The Consent Decree and CAP are incorporated by reference into this EIS. Development on the Landfill/Tire Fire site will be consistent with the requirements of the Consent Decree and CAP, and potential effects of the development were evaluated on that basis. Remedial actions required in the Consent Decree and CAP were previously subject to an extensive formal public comment process under the Model Toxics Control Act (MTCA) as well as review under SEPA, and a Determination of Non-Significance (DNS) was issued. This EIS does not duplicate or reopen evaluation of issues previously evaluated under SEPA.

5.7.2 Existing Conditions

This section summarizes the historical land use, physical environment and contaminated sites as determined from various reports obtained from agency databases and available archived records. Potential and known contaminants are summarized for each site area. The majority of the historical information and/or previous work activities pertaining to the project site focus mainly on the area known as the Simpson Pad and Landfill with fewer documents pertaining to other portions of the site. Areas that have known or suspected contaminated media are shown on figures obtained from the original reports as referenced and/or are included in the Appendices of this report. Although there has been multiple geotechnical reports conducted across the site they included limited environmental sampling activities. Detailed technical discussions can be found in the documents listed in Chapter 6, References of this document.

5.7.2.1 Landfill/Tire Fire Site

Historical Land Use

Various portions of the Landfill/Tire Fire site were used as a landfill from about 1917 through 1974 (see Section 4.1.3.2 for the chronology of the site use). After the landfill was closed, the northern portion of the site was used as a municipal refuse transfer station, a City animal shelter and is also currently a City of Everett Public Works maintenance yard. A tire recycling operation stockpiled tires which twice caught fire. The transfer station was demolished and regarded the area in 2004. Only the animal shelter still remains active. The animal shelter and public works maintenance yard are in the process of being relocated to other sites.

Chapter 2, Figures 2.1-4 through 2.1-11, depict the Riverfront Redevelopment site from 1947 through 2004. These photographs show the disturbed working surface in the landfill, which was limited to the northern portion of the site in the 1947 photograph and expanded southward through 1967. The 1976 photograph shows that the entire area has been graded, with two buildings constructed in the northern

portion of the site. Figure 5.1-1, Site Boundary/Ownership Map, is a 2002 aerial photograph that depicts the recent site configuration and land use.

Physical Environment

A site conceptual model was presented in a May 1999 *Technical Memorandum, Summary of Existing Conditions, Riverfront Redevelopment Pilot Project, Everett, WA* by Floyd and Snider (Floyd and Snider, 1999) that showed that the landfill was built on low-lying flood deposits from the Snohomish River. About 20 to 35 feet of refuse was placed on a layer of peat, soft silt and clay soils that form a 5- to 10-foot-thick aquitard (a soil layer that limits downward migration of groundwater). The aquitard terminates on the west side of the landfill, where it contacts downward sloping glacial soil layers. Shallow groundwater in the landfill area (landfill leachate) is primarily generated from precipitation that infiltrates into the soil and pools on the aquitard surface. This leachate then flows eastward into the leachate collection system, which runs for about 4,000 feet along the eastern site boundary. The leachate is captured in a collection trench and is then pumped to the City's Water Pollution Control Facility for treatment. Groundwater below the aquitard is referred to herein as the deeper aquifer, and is assumed to flow from the hillsides to the west, beneath the landfill, and is hydrologically connected to the Snohomish River.

The landfill forms an earthen mound that extends about 17 to 25 feet above original grade, which slopes gently to the south. A 3:1 slope is located along the eastern edge. East of the slope are a leachate collection system and former railroad tracks. Overlying the refuse is a soil cap generally varying in thickness from 5 to 20 feet which was placed as part of the landfill cleanup (HWA, 2005).

Surface water that flows across the site drains into the East Ditch, which borders the south and east sides of the site. The East Ditch eventually discharges into the Snohomish River. The leachate collection system constructed as part of the landfill cleanup isolated the East Ditch from the landfill leachate seeps, thereby preventing leachate from discharging into surface waters.

Cleanup Actions

In 1989, the site was listed under the Model Toxics Control Act (MTCA) because of contaminants associated with the tire ash. Ecology issued the City an Order related to the ash in 1994. The City performed the cleanup actions described below and entered into an agreement (Consent Decree) with Ecology in 2001. The Consent Decree incorporated a cleanup action plan (CAP), which specified cleanup actions and protective measures that apply to redevelopment of the landfill site.

Initially, the City performed two Interim Actions, one completed in 1995 and one completed in 1998. The first action consisted of grading the entire site (except for the two former tire fire areas) to aid in collection and control of surface water, and to reduce landfill leachate generation. In addition, the landfill was capped with an additional 2 feet of soil. The second Interim Action (1997 to 1998) included installation of a leachate collection system along the eastern side of the former landfill, and removal of the remaining tires. The ash from the two fires was combined and covered with 2 feet of clean fill. The leachate collection system consisted of a geomembrane cover over the eastern landfill slope, a lined leachate collection trench and collection piping, and two pump stations to move the collected leachate water to the sanitary sewer. Additional site work included removal and on-site disposal of sediments from the East Ditch, and installation of access roads and security fencing.

The 2001 Consent Decree and CAP included remedial actions to be implemented by the City for site conditions that existed at the time ("existing conditions"), and remedial actions to be implemented by the city and/or developer in conjunction with potential future development of the site ("future conditions"). It

also included a restrictive covenant and a Compliance Monitoring and Contingency Plan (CMCP) to make sure that these protective measures were in place during and after development.

The City has and continues to implement the cleanup actions for existing conditions. These actions included installing new groundwater monitoring wells along the eastern boundary and northwest of the site and installing new gas monitoring probes to determine the limit of buried landfill materials. The City continues to maintain a perimeter landfill gas collection system on north and west boundaries of the property, which was designed to prevent off-site migration of landfill gas, and a leachate collection system. The Consent Decree and CAP require operation of the leachate collection system until such time as the shallow aquifer is determined to be in compliance with cleanup standards established in the Consent Decree and CAP. The City also conducts compliance monitoring and inspections in accordance with the CMCP for landfill gas, groundwater, surface water and maintenance of the landfill cover.

The Consent Decree provides that the landfill site would be developed in the future and established a criteria for future development to meet MTCA requirements and a review process for review of future development plans to ensure consistency with the Consent Decree. The cleanup actions selected for future conditions are:

- Construction of an active landfill gas collection system in future development areas. The system will collect landfill gas in pipes buried in gravel and located beneath a low-permeable barrier. A vacuum will collect the gas in the pipes and discharge the gas in accordance with applicable ambient air regulations.
- Placement of hydraulic barriers and other measures in future development areas to prevent water from infiltrating into the landfill.
- An one-time shallow aquifer (leachate) quality characterization to determine if restrictions are necessary on types of deep building foundations (pilings). If so, zones of piling-type restrictions would be created. This study has already been conducted by the city.
- Standards for developed area covers (pavement, building slabs, soil), restricted access to undeveloped areas, and cover penetration restrictions and contingency plans. Excavated refuse may be relocated on-site in pre-approved locations and quantities.
- Development and implementation of stormwater pollution prevention planfor developed areas.
- Construction requirements including: dust and odor controls, erosion and surface water controls, health and safety requirements for construction crews, construction dewatering procedures, and construction performance monitoring, inspection and contingency plans.
- Institutional controls prohibiting ground-level private residential living space, overnight camping, and withdrawal of groundwater for any purpose other than leachate collection or monitoring.
- Compliance monitoring, including full-time building gas monitors, regular hand-held gas monitoring in buildings and exterior areas (i.e., parking lots and landscaped areas), groundwater and monitoring, surface water monitoring and regular site inspections.

The Consent Decree, including the CAP, is a document legally enforceable by the Department of Ecology. It requires that development on the site be constructed in conformance with these remedial actions. The City and OliverMcMillan Everett LLC (who is expected to become the owner of the Landfill Site) have agreed to divide the responsibility for these actions.

Contaminants of Concern and Landfill Gas Management

The primary contaminants associated with the landfill wastes are organic matter, and organic and metal contamination associated with the wastes that were deposited in the landfill. In addition to contaminants the landfill also produces potentially flammable methane gas generated by decaying organic matter. Although all municipal landfills have the potential to generate methane gas, the contaminants generated from waste are more specific to the types of wastes deposited.

Landfill gas, which is typically about 50 percent methane and 50 percent carbon dioxide, is a natural byproduct of decaying organic matter. Other gases may also be present at trace concentrations, such as toxic gases including hydrogen sulfide and vinyl chloride. The rate of gas production is highest at the time the landfill is closed and capped, and decreases over time. The Everett Landfill had an estimated initial gas production of around 625 cubic feet per minute (cfm) in 1975, which decreased to about 230 cfm by 2000 (Landmarc Technologies). Estimates indicate that further reductions will continue at a rate of about 7.5 cfm per year. The City installed and is maintaining a perimeter gas collection system along the west and north boundaries of the site. Perforated pipes are located in a subsurface collection trench, from which gas is withdrawn using a blower that creates a vacuum. The landfill gas is then vented through a stack pipe as allowed by the Puget Sound Clean Air Agency at the northeast corner of the site on 36th Street and at the east side of 41st Street Overpass. The gas collection system is designed to prevent off-site migration of landfill gases. In addition to the gas collection system, buildings and wells are monitored to measure gas concentrations. Continued monitoring will be required until gas migration and risk no longer pose a potential threat.

Site-specific cleanup levels were established for groundwater and surface waters to guide remedial actions, if they were required. These cleanup levels were based on the most stringent of drinking water and surface water (fresh and salt) standards. An evaluation monitoring program was established as part of the CMCP to establish contaminant baseline concentrations in shallow groundwater from the landfill leachate, as well as from the underlying aquifer and in upgradient wells that should not be impacted by the landfill (Ecology, 2001). The study established baseline concentrations so that long-term monitoring could be used to determine if the underlying aquifer was being degraded by the landfill leachate at points along the downgradient perimeter of the site. Continued long-term monitoring is conducted to determine if the shallow landfill leachate is entering into the deeper aquifer system.

Groundwater and landfill gas monitoring continue to be conducted by the City in compliance with the CMCP, with results reviewed by the Department of Ecology.

Areas of Concern and Associated Hazards

The entire Landfill/Tire Fire site contains a buried layer of refuse except for the southern corner and northwest edge. Buried refuse has several associated hazards including potentially flammable methane gas, and leachable contaminants that have the potential to migrate in groundwater. The CAP requires landfill gas management, leachate collection and groundwater monitoring as described above. In addition to these hazards, there are also physical hazards associated with compaction of the refuse layer. Over time, the refuse will continue to compact, resulting in surface soil subsidence. The subsidence is rarely uniform-and will likely settle differentially across the site. The CAP requires that structures built on the landfill be designed for differential settlement.

5.7.2.2 Simpson Pad

Historical Land Use

The Simpson Pad had several industrial uses since about 1891 (see Section 2.1 for the chronology of the site use). A plywood mill and sawmill were located on the present location of the Simpson Pad. The

sawmill was reportedly built on pilings (supposedly not removed when the buildings were demolished) above the boggy surface of the floodplain wetlands that formerly covered this portion of the site. The lumber and plywood mills were apparently closed by 1965. In addition, a multi-track railroad siding along the northwestern portion of the site was used for cleaning railroad cars. After 1972, the site was used for log storage and washing railroad cars. After demolition of the mills, the Simpson Pad was filled with approximately 700,000 cubic yards (cy) of river sediments dredged from the Snohomish River as part of a Corps federal maintenance project, and 200,000 cy of fill in 2000 and 2001 from various sources. In 1992, the City purchased the Simpson Pad as part of a larger parcel (approximately 140 acres) from the Simpson Paper Company, which included the Simpson Category 1 Wetlands and riparian corridor project area and the South Simpson site project area discussed below.

Through the 1990s, other improvements were made on the property, including the City's installation of the Riverfront public shoreline bike and pedestrian trail and cleanup up of debris and trash that had been dumped at the site.

Physical Environment

As mentioned in the historical section, over 900,000 cubic yards of fill, primarily river dredge sediments, were placed on the site to form the elevated "Pad." The fill is present to depths of up to 16 feet and consists of sediments, peat, crushed rock and some underlying demolition materials from the mills and log storage, such as bricks, concrete, ash, charcoal and wood debris. Underlying the fill material is a peat layer, which forms a continuous layer into the north wetlands and former landfill area. The elevated pad is essentially surrounded by lower wetland areas, as shown in Figure 2.1-3, Existing Site Topography Overall map.

As part of ERM-Northwest, Inc.'s *Phase I and II Environmental Site Investigation* in 1993, five groundwater monitoring wells (MW-1 through MW-5) were installed across the 140-acre Simpson Site. MW-1 was installed in the wetland area west of the Simpson Pad, and MW-3 was installed in a wetland area east of the Simpson Pad. The remaining three wells were installed at the South Simpson site (discussed below). ERM-NW installed MW-1 and MW-3 to collect data on site impacts from the possible plant effluent collection area, hydraulic fill (pad), railroad car cleaning operations (which included rodent control measures) and resin storage at the former plywood mill, and to collect data on general site conditions. Shallow groundwater was encountered at depths ranging from 5 to 7 feet below grade. ERM-NW reported a north-northeast gradient of the shallow water bearing zone across the 140-acre Simpson site. ERM-NW reports, dated 1993, indicate that there does not appear to be any direct hydraulic connection between the Snohomish River and the water table aquifer.

Borings drilled by HWA in 2003 encountered shallow groundwater with depths to water ranging from 4 to 9 feet below grade. The gradient of the shallow water bearing zone on the Simpson Pad was easterly, but was generally north-northeast across the entire Simpson area (HWA, 2003).

Cleanup Actions

The ERM and HWA soil and groundwater investigations did not indicate exceedances of MTCA Method A cleanup levels, which were used for screening levels, on or adjacent to the Simpson Pad, other than low level exceedances of MTCA Method A groundwater levels for arsenic and manganese concentrations. The HWA report concluded the manganese is typical of wooded, wetland areas and the arsenic was presumed to reflect background concentrations. The ERM investigations identified the need for cleanup of petroleum-contaminated soils at an aboveground storage tank area located approximately 500 feet south of the Simpson Pad, currently owned by the City, and an underground storage tank area on the former Simpson pulp and paper mill parcel south of the Pad, which is currently owned by the Washington State Department of Transportation (WSDOT). The AST and UST areas on these separate properties to

the south of the Simpson Pad were cleaned up in 1992, and conformational monitoring reports were reviewed by Ecology (ERM 1993). The cleanup was based on MTCA Method A cleanup levels of 200 mg/kg, which is more restrictive than the current level of 2,000 mg/kg or typically greater levels under Method B for weathered oil/diesel constituents. No soil contaminants were found on the Simpson Pad. Based on this information, Ecology issued the Simpson Site an NFA letter in December of 1994.

However, as of March 2007, the 1994 NFA status was rescinded by Ecology after a hazardous substance was discovered during work on the stormwater outfall (WSDOT Stormwater Site) within an area south of the Simpson Pad. The 2007 Ecology NFA letter stated that the rescission was "not the result of any newly discovered contaminants on the parcels north of the WSDOT property." Efforts are currently being made to resolve the rescission with Ecology.

Contaminants of Concern

As noted above, soil samples on the Simpson Pad did not indicate contaminants of concern and groundwater samples collected by HWA in 2003 contained arsenic and manganese concentrations, which were slightly above the MTCA Method A cleanup levels. The manganese is typical of wooded wetlands, and the arsenic was presumed to reflect background concentration. These elements are therefore not thought to be of significant concern (HWA 2003).

Areas of Concern and Associated Hazards

Because of the limited number of contaminants, low contaminant concentrations, and removal of the on-site sources, ERM-NW did not recommend remedial action at the Simpson Pad. ERM-NW indicated that the results of their investigations for the 140-acre Simpson site were generally consistent with the findings of an Ecology preliminary assessment (1985) and an EPA site inspection (1987). A subsequent brownfield stormwater study by HWA (Brownfields Riverfront Stormwater Site Selection Study, Simpson Site, Everett, WA dated August 22, 2003) obtained similar results

As discussed above, residual contamination and/or materials and conditions not encountered during earlier investigations may be present and encountered during future site development. If contaminants are discovered during the redevelopment process, appropriate precautions for workers' health and safety will be taken.

5.7.2.3 Simpson Category 1 Wetlands and Riparian Corridor

Historical Land Use

The western portion of this area does not appear to have had significant historical development (see Section 2.1 for the chronology of the Simpson Site use). However, the former lumber mill extended from the Simpson Pad area eastward to the Snohomish River, as shown on the 1955 aerial photograph (see Figure 2.1-4).

ERM-NW's Phase I and II Environmental Site Investigation reports, dated 1993, identified two wetland areas. The Northern Wetland Area comprises the north quarter of ERM-NW's subject site, and the Central Wetland Area (totaling approximately 9 acres) is located between the railroad tracks and the Simpson Pad.

Physical Environment

The area is primarily heavily vegetated, low-lying wetlands, through which Bigelow Creek empties into the Snohomish River. Bigelow Creek is currently located entirely within the North Wetlands area, and a drainage ditch in the Central Wetlands area that flows into the North Wetland area (PTI 1994). Bigelow

Creek reportedly flowed across the Simpson Pad to the Snohomish River, but was re-routed during historical development and fill activities described in the previous section.

Cleanup Actions

Initial sampling of sediments in the drainage ditch in the Central Wetlands indicated elevated PCB and other constituents concentrations diminished towards the north end of the wetland (ERM 1993; PIT 1994). At Ecology's request, the City performed a sediment study along the entire length of the Central Wetland Area (PTI, 1994). The study found elevated PCB concentrations below 20 cm depth on the northerly portion of the drainage course, which were also high quality wetlands, and recommended that any site development or restoration plans minimize disturbance of the sediments in this area. As mentioned previously, Ecology issued a No Further Action (NFA) letter on the Simpson Site. However the Simpson Site Drainage Course was specifically excluded from the NFA status. The City recorded a restrictive covenant in 1995 that any disturbance or potential re-suspension of these sediments be minimized, and that the Central Wetland Area (Drainage Course Unit) not be used for a restoration project without the prior approval of Ecology. See discussion in BA/HMP regarding Bigelow Creek.

Contaminants of Concern

The primary contaminant of concern identified in this area is PCB at depth in the drainage ditch sediment in the Central Wetland Area. However, the City has placed a deed restriction on this area to prevent its disturbance, as noted above (see Figure 5.7-1, Approximate Location Where Deed Restrictions Apply).

Areas of Concern and Associated Hazards

Due to the historical use and limited available data on the riparian corridor east of Simpson Pad and the North wetlands, it is possible that wetlands and habitat enhancement projects planned for portions of these areas could encounter contamination. Soil investigations should be included in the planning for future habitat enhancement projects to make sure that the habitat is suitable. If contaminants are discovered, appropriate precautions will be taken to ensure the health and safety of site workers and prevent additional contamination.

5.7.2.4 South Simpson Site (WSDOT Stormwater Facility)

Historical Land Use

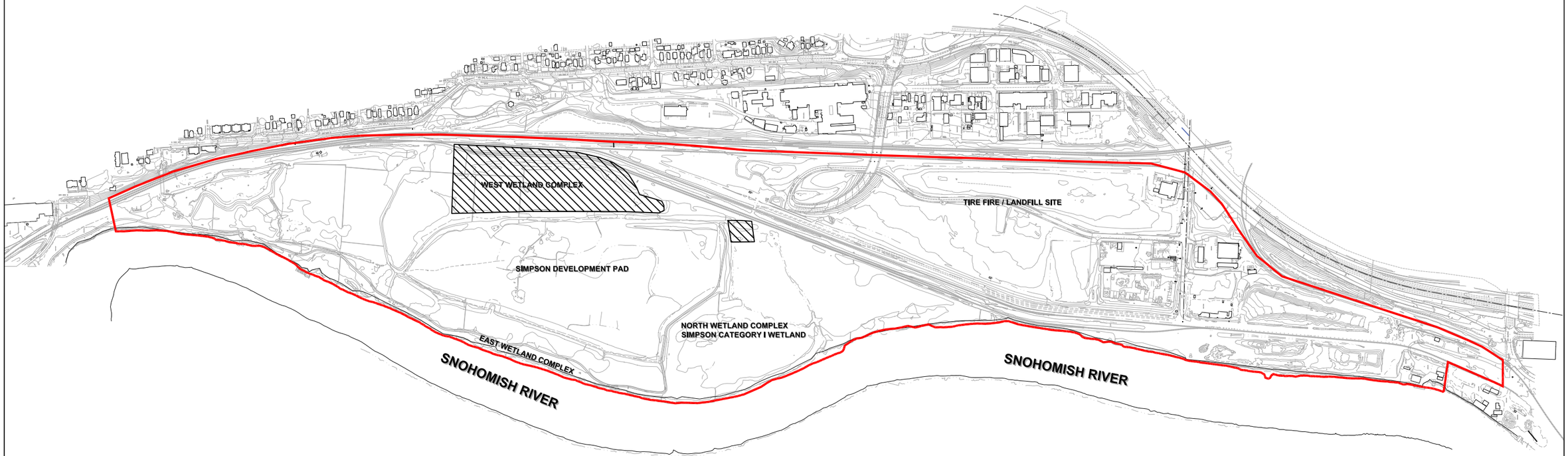
This area was historically used for log peeling, steaming and storage for the sawmill/plywood mill facility described in Section 2.1. After the demolition of the mills, this area was excavated and used for a dewatering area for the hydraulic fill being placed on the Simpson Pad. The current wetland was artificially-created when the depression was left after the fill operation.

Physical Environment

The area is primarily vegetated, low-lying wetlands. Two of several borings drilled along the western edge of this area encountered concrete pads or debris at approximately two feet below grade (bgs). Other borings typically encountered up to 16 feet of debris and fill material, which was underlain by a 10 to 20 foot peat layer. Beneath the peat layer were sand and silt layers of varying density.

Cleanup Actions

No remedial actions or listings of regulatory involvement were noted in the documents reviewed until recent information was obtained from the Washington State Department of Ecology that rescinded the previous NFA letter as identified above. Although the trail systems managed by the City runs the perimeter of this area, it does not fall under the responsibility of the OliverMcMillan in the Riverfront Redevelopment Project. The City of Everett will have the responsibility of managing contaminants in the event they are encountered during trail realignment. Although the NFA was rescinded for this area it appears unlikely that soil and/or groundwater contamination would be encountered due to logistics and minimal amount of disturbance required for trail improvements.



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Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Base drawing provided by Perteet, Inc.

Legend

- Site Boundary
- Approximate Location of Deed Restictions

W S N E

370 0 370
Feet

Approximate Location Where Deed Restictions Apply

Everett Riverfront Redevelopment
Everett, Washington

GeoEngineers

Figure 5.7-1

Contaminants of Concern
See contaminants of concern as noted above for the Simpson Pad.

Areas of Concern and Associated Hazards
See Areas of Concern and Associated Hazards as noted above for the Simpson Pad.

5.7.2.5 Eclipse Mill/Port of Everett Site

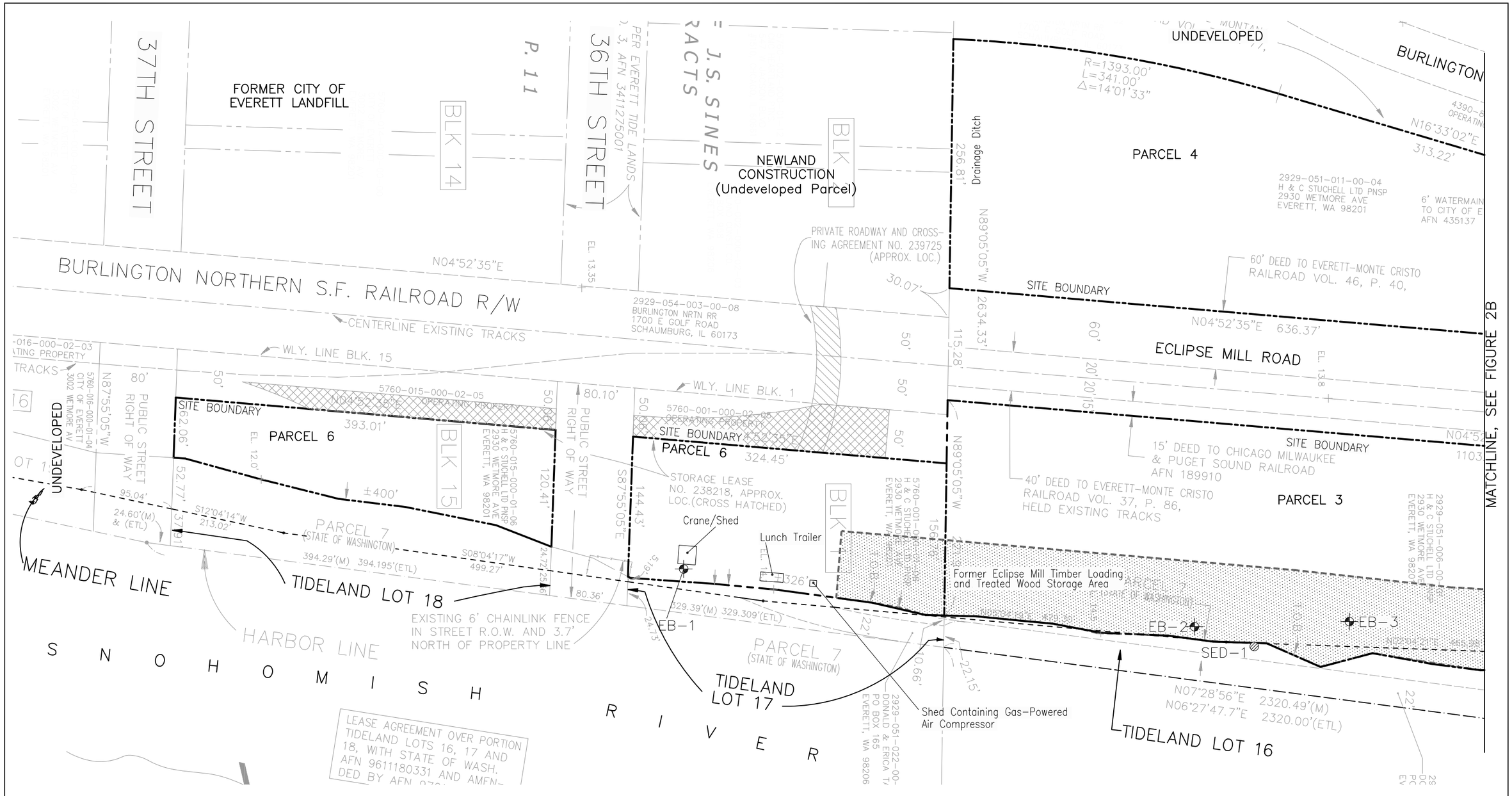
Historical Land Use
See Section 4.1.3.3 for the chronology of the site use. The site was developed around 1899 as a shingle mill and soon thereafter was converted to a lumber mill, which was owned by the Eclipse Lumber Company. The lumber mill operated from 1902 until a fire destroyed it in 1962. The lumber mill consisted of numerous facilities, including an office building, a planing and saw mill, a boiler house with maintenance and saw shops, an oil shed with maintenance shop, and several lumber sheds. Only some of these facilities were located on the property owned by the City. Large areas of the site were occupied by these structures and railroad tracks.

The fire rubble and ash were reportedly cleaned up, and 1 to 3 feet of fill soil was placed across the mill site between 1962 and 1975 (GeoEngineers, 2003). Subsequent use of the site was limited to log storage and sorting, which appears to date back to as early as 1967. Figures from the GeoEngineers Phase I and Phase II Environmental Site Assessment report, dated December 5, 2003 (GeoEngineers, 2003), show the site layout and land uses (see Figures 5.7-2 through 5.7 2B, Eclipse Property – GeoEngineers 2003 Report. Wood chipping and log storage/sorting, along with equipment and materials storage continued until 2005. Since 2005 much of the site has been used for temporary offices and stockpiling of soils removed from nearby I-5 construction. An office building was constructed on the north part of the site around 1970. The only other permanent aboveground structure on the property is a shed located on the southern portion of the site, which has been there since the 1940s. The Northern 2.2 acres are owned by other parties. The Southern 1.0 acres is owned by Eclipse Properties LLC (Stuchell family) and the Northern 1.2 acres are owned by Newland Construction.

Physical Environment
The site is currently used as a construction and material staging area by WSDOT contractors for its I-5 HOV project. Prior to WSDOT's use, the site was at an elevation of approximately 16 feet above mean lower low water level, with 5 to 15 feet of fill that was apparently placed over two time periods: prior to 1900, and between 1962 and 1975. Schematic East-West Geological Cross Section (GeoEngineers, 2003) shows the site conceptual stratigraphy. Groundwater is approximately 5 to 7 feet below grade (see Figure 5.7-3, Schematic East-West Geologic Cross Section GeoEngineers Report 2003). The current elevation is higher due to stockpiling of material for the I-5 HOV project. The property's elevation is expected to be higher after the completion of the I-5 HOV project as some of this fill material will likely remain in place.

Cleanup Actions
No remedial actions or listings of regulatory involvement were noted in the documents reviewed. However, assessment work conducted by GeoEngineers in 2004 (GeoEngineers 2004) and URS in 2005 (URS, 2005a and URS, 2005b) determined that contaminants in concentrations in excess of MTCA Method A cleanup standards were present in subsurface soils.

Contaminants of Concern
Initial investigation efforts conducted by GeoEngineers (GeoEngineers, 2003) on the Eclipse Mill property did not identify contaminants in concentrations that exceeded MTCA Method A soil or groundwater cleanup levels. However, some areas were not sampled because of obstructions at the time the work was completed.



EXPLANATION:

EB-1 ⊕ SOIL BORING COMPLETED 10/03

SED-1 ⊘ SEDIMENT SAMPLE COMPLETED 10/03

▨ FORMER SITE USES. BOUNDARIES SHOWN ARE APPROXIMATE. SEE FIGURE 3, AND HISTORIC MAPS AND AERIAL PHOTOGRAPHS INCLUDED IN APPENDIX A FOR FORMER ECLIPSE MILL LAYOUT.

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: CAD file "eclip_stuchell" provided October 2003 by David Evans and Associates.

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Feet

Eclipse Site and Surrounding Properties - 12/05/03 GeoEngineers Report

Everett Riverfront Redevelopment
Everett, Washington

GeoEngineers

Figure 5.7-2

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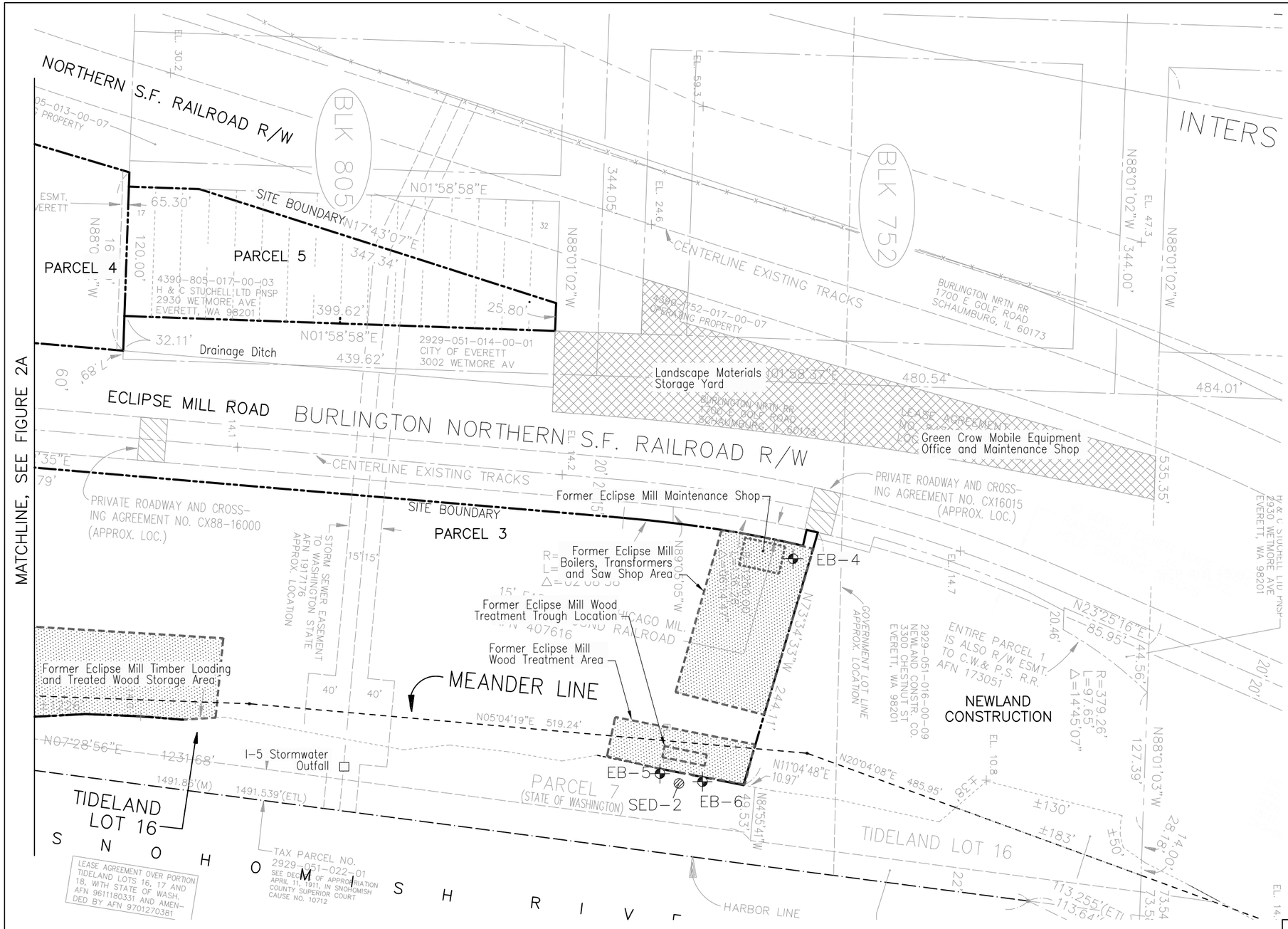

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Reference: CAD file "eclip_stuchell" provided October 2003 by David Evans and Associates.

EXPLANATION:

EB-1 SOIL BORING COMPLETED 10/03

SED-1 SEDIMENT SAMPLE COMPLETED 10/03

FORMER SITE USES. BOUNDARIES SHOWN ARE APPROXIMATE. SEE FIGURE 3, AND HISTORIC MAPS AND AERIAL PHOTOGRAPHS INCLUDED IN APPENDIX A FOR FORMER ECLIPSE MILL LAYOUT.

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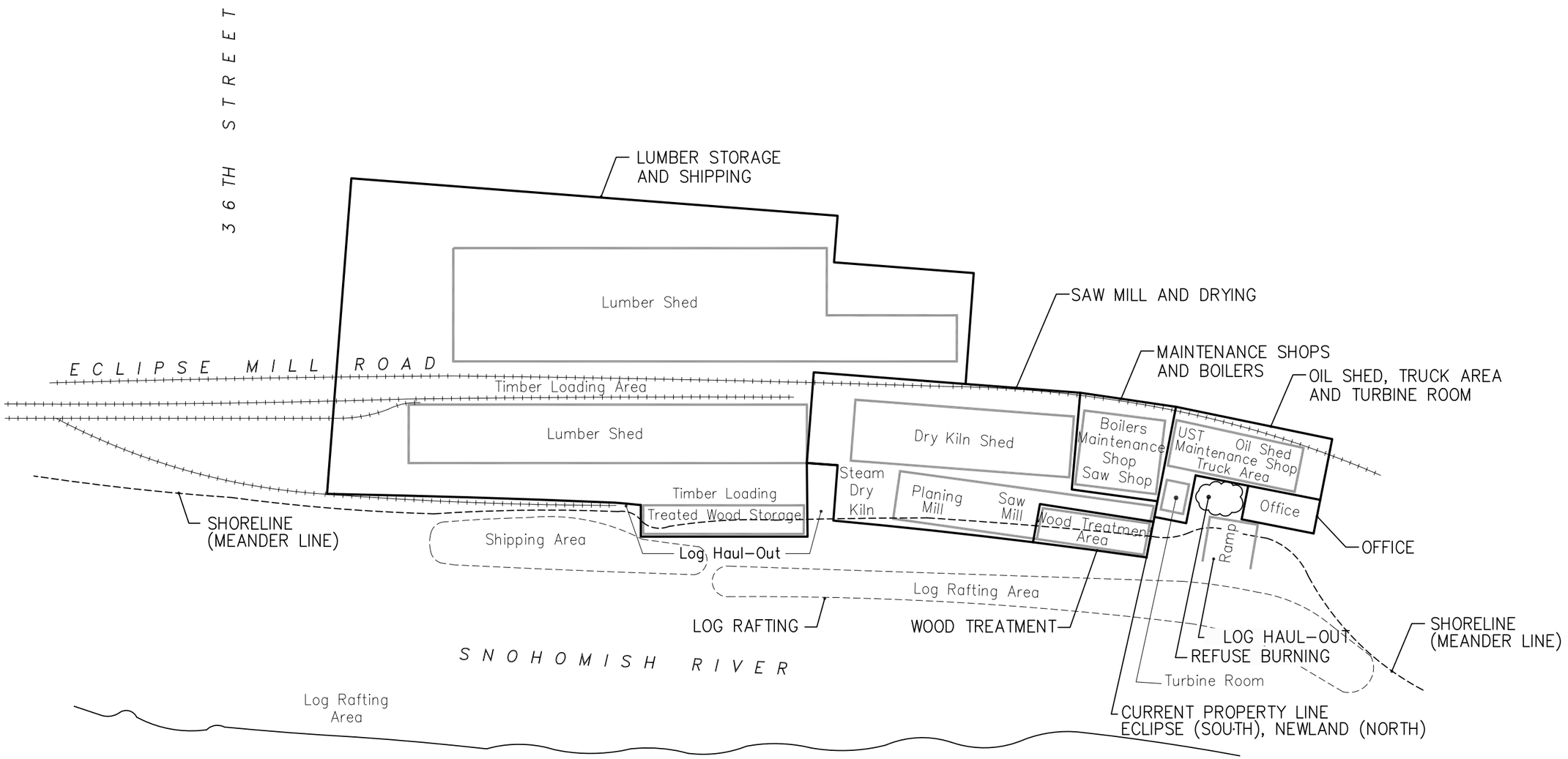
Eclipse Site and Surrounding Properties - 12/05/03 GeoEngineers Report

Everett Riverfront Redevelopment
Everett, Washington

GeoEngineers

Figure 5.7-2A



NOT TO SCALE

Generalized Schematic of Eclipse Mill Facilities, ca 1950's - 12/05/03 GeoEngineers Report

Everett Riverfront Redevelopment
Everett, Washington

GeoEngineers

Figure 5.7-2B

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Aerial photographs (1947 and 1955 Walker & Associates; 1961 U.S. Army Corps of Engineers); Sanborn maps (1950, 1957, 1960); GeoEngineer's interviews (2003).

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East

West

ELEVATION (feet MLLW)

20
15
10
5
0
−5

Site Surface
Average 16' MLLW

Wood Debris with Silt
(Fill)(1'−4' Thick)

Silt or Silt with Sand and Wood Debris
(Post−1962 Fill)(2'−3' Thick)

Approx. 5'−7' bgs
Perched Groundwater

Silty Sand or Sandy Silt
(Pre−1900 Fill)(Varying Thickness)

Silty Sand, Sand, Peat
(Native Alluvium)

Dike

Approximate 0'-15'
Snohomish River Level

Riprap and Logs

Tideflat

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: GeoEngineers site reconnaissance, interviews, site borings and Phase II sampling logs (Oct-Nov 2003).

EXPLANATION:

MLLW MEAN LOWER LOW WATER

GROUNDWATER LEVEL

NOT TO SCALE

Schematic East-West Geologic Cross Section - 12/05/03 GeoEngineers Report

Everett Riverfront Redevelopment
Everett, Washington

GeoEngineers

Figure 5.7-3

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Areas of Concern and Associated Hazards

Most of the Eclipse Mill site was used for storing and shipping lumber. Processes that used chemicals of potential concern appeared to be limited to the northern portion of the site. Water quality measured at nearby seeps into the Snohomish River indicated that the contaminants in groundwater did not impact the river.

5.7.2.6 Drywall Site

Historical Land Use / Physical Environment

The property is an approximate 1.38-acre tract north of 36th Street and east of I-5/BNSF in the Eclipse Mill area. The site was formerly developed with the GTS Drywall warehouse and office facility. The GTS Drywall facility has been demolished and the property, which had recently been used as a materials staging area by WSDOT contractors for the Interstate 5 expansion project, is currently vacant. A portion of the former GTS Drywall property has recently been conveyed to Burlington Northern Santa Fe (BNSF) Railway.

Cleanup Actions

Cleanup to meet MTCA requirements will be performed prior to site development likely under the Voluntary Cleanup Program'

Contaminates of Concern / Areas of Concern and Associated Hazards

An area impacted with gasoline-range petroleum hydrocarbons (TPH-Gx) and benzene, ethylbenzene, toluene, and xylenes (BETX) at concentrations greater than MTCA Method A screening levels (petroleum contaminated soil or "PCS") extends from the vicinity of the former GTS Drywall building footprint southeast toward 36th Street.

The extent of the petroleum-impacted soil is an oval-shaped area approximately 250 x 125 feet, mostly on the portion of the former GTS Drywall property currently owned by the City. The PCS extends approximately 50 feet into both the BNSF property to the northwest and the 36th Street right-of-way to the south. The extent of petroleum-impacted groundwater is somewhat larger than this area on the northwest and apparently extends further than the impacted soil area on the southeast; it has not been fully delineated to east-southeast. The data indicate that impacts to soil do not extend across 36th Street or onto the Everett Tire Fire Landfill Site.

Groundwater results further indicated that the gasoline-range petroleum hydrocarbon plume is at least 200 feet in length, and is characterized by increasing concentrations downgradient of the assumed source area. Site sampling and monitoring activities indicate that the hydrocarbon plume appears to be moving southeast rather than towards the south.

Arsenic, cadmium, and/or lead were identified at concentrations greater than MTCA Method A screening levels at five sampling locations in the southeast portion of the property and along the adjacent street and neighboring property at slightly elevated concentrations. None of the other soil or groundwater samples collected from the former GTS Drywall property showed lead concentrations above MTCA Method A unrestricted screening levels. These results suggest that the metals and Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAH) impacts in this area do not extend a distance into the property.

Lead concentrations in soil were reported at similar depths on the adjacent Port property to the east. This concentration is considerably lower northward on the Port property. The groundwater sampling results for this area did not indicate elevated lead concentrations. Chemical analytical results for lead, other metals and cPAHs indicate that the property is not a source area and that these results are related to or part

of an area of contamination located principally off site. The limits of the elevated metals impact in soil have not been defined to the east, northeast or southeast, which are off site.

Because of the steep slope, fill is likely to be placed on the property in this area for any redevelopment or future use, as it has on the adjacent City properties. The presence of relatively low cPAH levels at considerable depth in these locations is therefore unlikely to present a risk or pathway for direct contact. The reported values do not exceed the MTCA Method A industrial screening level for soil, which is based on protection of groundwater at the site meeting the criteria for industrial land use. Groundwaters sampling collected downgradient from where cPAH impacts in soil were identified indicate the soil is not impacting groundwater in this area.

5.7.3 Potential Effects / Impacts of the Project and Mitigation Measures

Future development of the project site will include building construction and development of amenities, such as streets and trails. These activities would entail modification of existing structures and land. Mitigation efforts will be needed during the design and construction stages to ensure that workers, future site users and ecologic receptors are protected from potential releases of known contaminants.

5.7.3.1 Landfill Site Effects and Mitigation

Section 5.7.2.1 summarizes the key mitigation measures that will be implemented, as required by the CAP and Consent Decree.

Landfill gas control systems in the Consent Decree and CAP were selected for their ability to decrease and mitigate the risks of fire and explosion resulting from methane gas. A quantitative risk assessment was performed evaluating the phased active landfill gas control system required in the Consent Decree and CAP. That risk assessment is incorporated in this EIS by reference. As stated previously, the CD, CAP and supporting materials, including the Quantitative Risk Assessment, have already done through a public comment and SEPA review process led by the Department of Ecology. The risk assessment determined the risk of an explosion or subsurface fire caused by a build-up and ignition of methane gas in potential future developed open spaces, pavements and buildings. The risk assessment results determined that a phased active landfill gas control system effectively diminishes the risk of fire and explosion resulting from landfill gas under potential future developed conditions at the project site. The Consent Decree and CAP also anticipated and contains measures to minimize impacts from differential settlement that will occur when the landfill continues to subside over time as refuse decays and compacts.

Exposure of workers to buried landfill material, leachate, and gas during construction on the landfill was also evaluated and mitigation measures developed in the Consent Decree and CAP. Construction requirements include dust and odor controls, erosion controls, health and safety-trained personnel when buried landfill materials are exposed, dewatering procedures and performance monitoring and inspections for construction crews.

The Consent Decree and CAP also address the potential for development to result in impacts to groundwater by including restrictions on the type of pilings used, in order to minimize the potential for penetration of the aquitard to result in exceedances of cleanup standards in the deep aquifer. To protect surface and groundwater, special stormwater management requirements exist to reduce leachate production, and hydraulic barriers are required in developed areas. Finally, institutional and property management controls are required to ensure the continued integrity of the environmental and physical controls on the landfill.

All of these Consent Decree and CAP remedial actions will be incorporated into future development and are a part of all of the action alternatives. With these measures, significant impacts to humans or the environment from environmental hazards are unlikely to occur as a result of development on the Landfill/Tire Fire site.

The following sections assess potential hazards and describe some of the mitigation efforts that can be used to minimize potential impacts on the properties other than the Landfill site.

5.7.3.2 Impacts Common to the "Action" Alternatives on Areas other than the Landfill/Tire Fire Site

Alternatives 1 and 2 both include construction of commercial facilities such as retail and office space, and the preferred alternative (Alternative 1) includes construction of residential units as well. Residential use (as opposed to commercial) may trigger more stringent environmental cleanup needs, particularly if units are constructed on ground level over the top of areas that may contain vapors in the subsurface.

Potential exposures to contamination generally fall into two categories: either direct contact with contaminated media, or inhalation of contaminant vapors. These exposure paths are driven by the volatility of the contaminant. The areas of the project site other than the Landfill/Tire Fire site contain non- or low-volatility hydrocarbon compounds (diesel, oil, PCBs and PAHs). The potential impacts of redevelopment construction from the known site contaminants are discussed in this section.

Temporary Construction Impacts

Demolition of existing structures may release hazardous building materials, such as asbestos, lead paint and mercury-containing light switches. Proper identification and handling of these and other potentially hazardous building materials will be documented prior to demolition.

The known contaminants in the project area are buried beneath the existing surface. Excavation during building construction, placement of utilities, pile driving or drilling, soil grading, or other earthwork could result in daylighting contaminated media (soil, groundwater or sediment). Contaminated media, if disturbed, would likely require special handling as regulated material to ensure safe handling and proper disposal. Earthwork can also produce dust from contaminated soil, which can result in potential exposures through inhalation, ingestion and direct skin contact.

Long-Term Construction Impacts

Cleanup to meet MTCA requirements will be performed prior to site development likely under the Voluntary Cleanup Program'

5.7.3.3 Impacts of the No-Action Alternative

The no-action alternative for this project merely delays development. The City's policies and vision statements in the Comprehensive Plan contemplate development of the area into high-quality mixed-use development, including residential, office park and light commercial facilities, along with open space and park use. Ultimate development will result in the same construction challenges and environmental impacts and mitigation measures that are discussed in the previous sections.

5.7.4 Mitigation for Areas other than the Landfill/Tire Fire Site

5.7.4.1 Mitigation Measures Common to All Alternatives

As noted in the previous section, all three alternatives will likely involve disturbing soil and removing existing structures in areas of the project site other than the Landfill/Tire Fire area at some point in the future. The mitigation measures described below are measures that could help minimize potential impacts during and after construction. Mitigation for impacts at the landfill has already been addressed in the Consent Decree and CAP, and those requirements must be incorporated into any of the alternatives (see 5.7.2.1 and 5.7.3 above).

Design and Planning

- Small areas of contamination, such as the hydrocarbons in soil at the north end of project area (Newland and Stuchell properties) could be removed and disposed of prior to construction, thereby eliminating further development concerns.
- Work plans to address issues identified with the Drywall site need to be developed and implemented.
- Work plans should be generated to address potential hazardous materials in existing structures that will be demolished. The plans should include instructions on proper handing and disposition of hazardous materials, dust control and spill prevention in accordance with federal, state and local requirements.
- Stormwater controls may be needed to prevent spreading potentially contaminated soils, as well as to minimize sediment from entering surface waters. A Stormwater Pollution Prevention Plan should address, as necessary, the specific areas that contain known contaminants.
- Soil work impacts can be minimized by following a site-specific soil management plan. The plan should describe soil handling in areas that are known or suspected to contain contaminants. The plan should include instructions for minimizing dust, capturing liquid runoff, and establishing appropriate health and safety monitoring to ensure worker protection. Alternatives for disposition of contaminated media should also be incorporated into the plan.
- Work in areas with known contamination should be conducted under the guidelines of a site-specific health and safety plan that describes specific precautions and monitoring requirements.

Construction Phase

Mitigation can be accomplished by the following actions during construction:

- Clean up contaminated areas prior to full construction, or minimize or eliminate exposure pathways in contaminated areas through designs such as building slabs or other covers to reduce potential exposures and cross contamination.
- Implement health and safety monitoring, dust control and stormwater controls as outlined in the associated plans.
- Provide sufficient training and oversight so potential unknown hazards are recognized in the field during construction.
- Implement measures spelled out in the soil management plan if suspect material is encountered.

5.8 NOISE

5.8.1 Introduction

This section discusses the existing noise levels and affected environment on and near the proposed development site, potential impacts of the development alternatives and facility operation, and recommended mitigation to address identified impacts.

5.8.2 Methodology

The noise impact assessment of the proposed alternatives included sound level measurements at on-site and nearby representative sensitive receivers, sound level measurements of off-site sources that may potentially affect on-site locations, and a qualitative analysis of sound levels from the potential future sources and site configurations. Additional aspects of the review are discussed as necessary in the later sections.

5.8.2.1 Existing Conditions / Affected Environment

Noise Level Terminology

Noise is sometimes defined as unwanted sound. This review makes no such distinction, and the terms noise and sound are used more or less synonymously. The human ear responds to a very wide range of sound intensities. The decibel (dB) scale used to describe and quantify sound is a logarithmic scale that provides a convenient system for considering the large differences in audible sound intensities. On this scale, a 10 dB increase represents a perceived doubling of loudness to someone with normal hearing. Therefore, a 70 dB sound level will sound twice as loud as a 60 dB sound level.

People generally cannot detect sound level differences (increases or decreases) of 1 dB in a given noise source. Although differences of 2 or 3 dB can be detected by some people under ideal laboratory conditions, such changes are difficult to discern in an active outdoor noise environment. A 5-dB change in a given noise source or environment would be likely to be perceived by most people under normal listening conditions.

When addressing the effects of noise on people, it is necessary to consider the "frequency response" of the human ear, or those frequencies that people hear best. Sound-measuring instruments are therefore often programmed to "weight" sounds based on the way people hear. The frequency weighting most often used to evaluate environmental noise is A weighting, and measurements using this system are reported in "A weighted decibels" or dBA. All sound levels discussed in this evaluation are reported in A weighted decibels.

As mentioned above, the decibel scale used to describe noise is logarithmic. On this scale, a doubling of sound-generating activity (i.e., a doubling of the sound energy) causes a 3-dBA increase in average sound produced by that source, not a doubling of the loudness of the sound (which requires a 10-dBA increase). For example, if traffic along the road is causing a 60-dBA sound level at some nearby location, twice as much traffic on this same road would cause the sound level at this same location to increase to 63 dBA. Such an increase might not be discernible in a complex acoustical environment.

Relatively long, multi-source "line" sources such as roads emit cylindrical sound waves. Due to the cylindrical spreading of these sound waves, sound levels from such sources decrease with each doubling of distance from the source at a rate of about 3 dBA or somewhat more, depending on the nature of the intervening ground. Sound waves from discrete events or stationary "point" sources spread as a sphere, and sound levels from such sources decrease about 6 dBA per doubling of the distance from the source.

Conversely, moving half the distance closer to a source increases sound levels by 3 dBA and 6 dBA for line and point sources, respectively.

For a given noise source, a number of factors affect the sound transmission from the source, which in turn affects the potential noise impact. Important factors include distance from the source, frequency of the sound, absorbency and roughness of the intervening ground surface, the presence or absence of obstructions and their absorbency or reflectivity, and the duration of the sound. The degree of impact on humans also depends on who is listening and on existing sound levels at the receiving location. Typical sound levels of some familiar noise sources and activities are presented in Table 5.8-1.

Federal regulatory agencies often use the equivalent sound level (Leq) to characterize sound levels and to evaluate noise impacts. The Leq is the level that if held constant over the same period of time would have the same sound energy as the actual, fluctuating sound. As such, the Leq can be considered an energy-average sound level. But this metric should not be confused with an arithmetic average which tends to de-emphasize high and low values, because the Leq gives most weight to the highest sound levels because they contain the most sound energy. The Leq noise metric has been found to be highly correlated to community response to noise, and is often the metric calculated by noise models used to assess potential impacts and the need for mitigation.

The day-night sound level (L_{dn}) is based on the hourly equivalent sound levels during every hour of the day. The L_{dn} is like a 24-hour Leq, except that 10 dBA are added to Leq levels during nighttime hours (10 p.m. to 7 a.m.) to account for potential sleep interference during these hours. The L_{dn} is a widely recognized metric for assessing potential impacts of noise on people and residential uses but is not directly applicable to this project. It is mentioned as a reference only but it provides a good tool to assess site suitability for residential locations HUD 1985.

In discussing sound level measurements and predictions, it is important to identify the time period being considered, because most sound-energy criteria address sound-energy averages over a given time period. In this way, noise criteria address both the intensity and the duration of sounds.

Table 5.8-1. Common Sound Levels and Sources

Thresholds/ Noise Sources	Sound Level (dBA)	Subjective Evaluations [(a)]	Possible Effects on Humans [(a)]
Human Threshold of Pain Carrier jet takeoff at 50 feet	140	Deafening	Continuous exposure to levels above 70 can cause hearing loss in majority of population
Siren at 100 feet Loud rock band	130		
Jet takeoff at 200 feet Automobile horn at 3 feet	120		
Chain saw Noisy snowmobile	110		
Lawn mower at 3 feet Noisy motorcycle at 50 feet	100	Very Loud	
Heavy truck at 50 feet	90		
Pneumatic drill at 50 feet Busy urban street, daytime	80	Loud	
Normal automobile at 50 mph Vacuum cleaner at 3 feet	70		Speech Interference
Air conditioning unit at 20 feet	60	Moderate	

Thresholds/ Noise Sources	Sound Level (dBA)	Subjective Evaluations [(a)]	Possible Effects on Humans [(a)]
Conversation at 3 feet			
Quiet residential area Light auto traffic at 100 feet	50		Sleep Interference
Library Quiet home	40	Faint	
Soft whisper at 15 feet	30		
Slight rustling of leaves	20	Very Faint	
Broadcasting Studio	10		
Threshold of Human Hearing	0		

Notes:
[(a)] Note that both the subjective evaluations and the physiological responses are continuums without true threshold boundaries. Consequently, there are overlaps among categories of response that depend on the sensitivity of the noise receivers.

Source: EPA 1974 and Others

Noise Regulation Overview

The proposed project site is located in the City of Everett, in Snohomish County, Washington. Nearby noise-sensitive receivers are also located within the City of Everett. The Everett Municipal Code includes "maximum permissible sound levels" applicable to this project and are discussed further below.

City of Everett Noise Ordinance

The City of Everett Noise Ordinance (Chapter 20.08; Noise Control) conforms to the Washington State Administrative Code Chapter 173-60 noise rule. The City ordinance establishes limits on the levels and durations of noise crossing property boundaries. Allowable maximum sound levels depend on the "district" or land use zone (zoning) of the noise source, and the district of the receiving property (Table 5.8-2). The general categories of zoning districts include residential, commercial uses, and industrial or agricultural uses.

The sound levels listed in Table 5.8-2 are "maximum permissible limits" that are not to be exceeded by more than: 5 dBA for more than 15 minutes in any hour, or 10 dBA for more than 5 minutes of any hour, or 15 dBA for more than 1.5 minutes of any hour. These allowed short-term increases can be described in terms of a percentile, or the percentage of time a certain level is exceeded. For example, L_{25} represents the sound level exceeded 25 percent of the time, or 15 minutes in an hour. Similarly, $L_{8.33}$ and $L_{2.5}$ are the sound levels that are exceeded for 5 and 1.5 minutes in an hour, respectively. The three percentile (L_n) limits, together with the not-to-be-exceeded maximum level (the maximum permissible level plus 15 dBA), comprise the four daytime hourly sound level limits shown in the lower portion of Table 5.8-2. To comply, measured sound levels must be less than all four of these limits.

The Everett noise code exempts construction noise from the City noise limits during daytime hours only. For purposes of this exemption, daytime is defined as the hours between 7 a.m. and 10 p.m. on weekdays, and 8 a.m. and 6 p.m. on weekends and holidays. During other hours, the noise limits pertain to construction noise, which can effectively prohibit noisy activities during nighttime hours.

In addition to regulatory requirements, the City's Planning staff requires noise mitigation for proposed residential developments on sites where exterior noise levels could impact residents. Specifically, planning staff policy states that interior noise levels must be no greater than 45 L_{dn} when outdoor noise levels exceed 65 L_{dn}. During SEPA review, any mitigation measures needed to comply with this 45 L_{dn} limit must be stated in the noise analysis.

Table 5.8-2. City of Everett Maximum Permissible Sound Levels (dBA)

Land Use Zone of Noise Source	Receiving Property Land Use Zone		
	Residential Day/Night [(a)]	Commercial	Industrial
Residential	55/45	57	60
Commercial	57/47	60	65
Industrial	60/50	65	70
Daytime hourly Ln sound level limits for commercial noise received on residential property [(b)]			
Lmax	L2.5	L8.3	L25
72	67	62	57

Notes:
[(a)]The 10-dBA nighttime reduction applies between 10 p.m. and 7 a.m. on weekdays and 10 p.m. and 9 a.m. on weekends.
[(b)]These limits derive from the maximum permissible level (57 dBA) and the short-term increases above this level allowed during any hour of the day or night.

Source: City of Everett Noise Ordinance 20.08

Existing Land Use and Terrain

Existing land uses adjacent to the site consist of commercial and light industrial uses near the north and west of the Eclipse Mill and Landfill site. Both of these sites currently include light industrial activities including construction activities. Adjacent to the triangle area of the Landfill site south of the 41st Street Bridge, the Acrowood industrial site utilizes several large buildings and an outdoor yard used for work and storage. South and west of the industrial site, land use consists mostly of the Lowell residential neighborhood including Lowell Park and a dog park. Further south of the project site is the Morse Brothers/CBI Industries manufacturing facility.

The terrain near the site is relatively flat with increasing terrain from the site toward I-5. Much of I-5 is elevated along the entire south, west and north of the development site. The east side of the property is bordered by the Snohomish River, which also creates wetlands throughout the site. A public walking/biking trail meanders along the riverfront and onto the Simpson pad site (See Section 4.1.3 for more details on the topography of the project site).

Existing Sound Sources and Levels

The existing acoustic environment varies throughout the site due to a variety of existing sources, but two such sources dominate: traffic traveling on I-5 and train noises including horns at crossings from the BNSF railroad. Other sources include noise from aircraft (helicopters and airplanes of various sizes), and nearby construction noise as part of improvements to local roads and also I-5.

Sound level measurements (SLMs) were taken at two on-site locations and three off-site locations to either measure potential sounds from off-site sources that might affect the proposed site (SLM 1, SLM2 and SLM3) and/or to represent existing sound levels at nearby and potential future residential receptors (SLM2 and SLM4). The locations of these measurements and the sources observed are depicted in Figure 5.8-1 and described in Table 5.8-3. These measurements were taken using Larson Davis 820 Type I sound level meters with levels of accuracy about 1 dBA. The meters had been factory certified within the previous 12 months and were field calibrated immediately prior to the measurements. The microphones of the meters were fitted with wind screens and were set approximately 5 feet above the ground (at a typical listening height).

Figure 5.8-1. Sound Level Measurement Locations

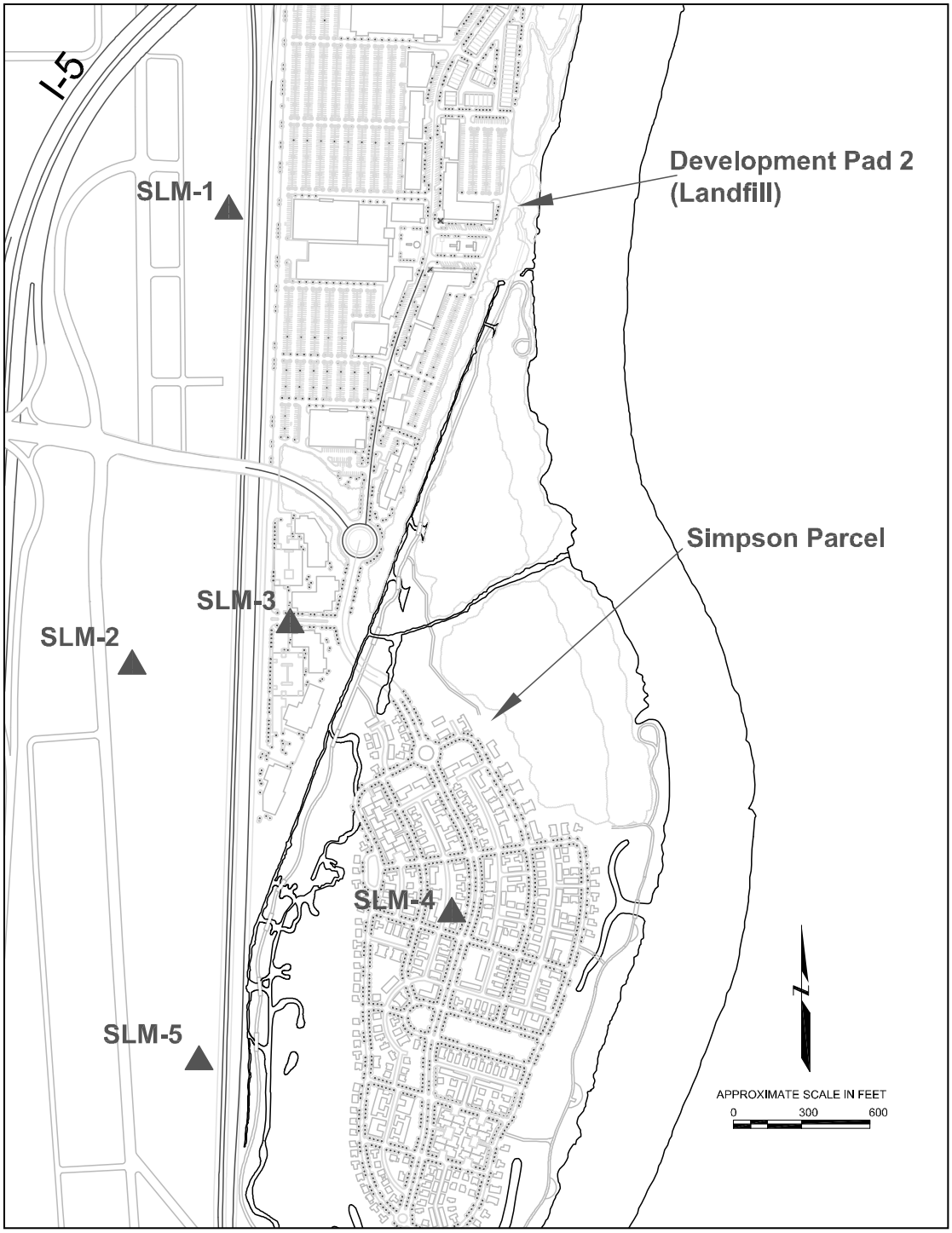

Table 5.8-3. Measured Existing Sound Levels (dBA)

SLM Location	Day/Night	Range of Measured Hourly Level			
		Leq	L25	Lmax	Ldn
Long-term (24-hour) Measurements					
SLM-1	Day	56-69	51-63	69-105	69
2420 38th St.	Night	56-69	54-60	73-105	
SLM-2	Day	55-58	52-58	65-85	58
4219 S 3rd Ave.	Night	46-54	46-55	60-70	
SLM-4	Day	53-60	53-61	60-91	61
Simpson Parcel	Night	49-59	49-60	56-82	
Short-term Measurements					
SLM-3	Day	70		79	
Train		(pass-by event)			
SLM-5	Day	60		79	
Lowell Park					

Notes:
The Leq is the "energy average" sound level, a constant sound with the same sound energy as the actual fluctuating sound. This metric is used extensively in characterizing and describing sound levels.

The L25 is the sound level exceeded 25% of the time, in this case during a 1-hour period. These values can be compared with the 57-dBA L25 noise limit (see lower portion of Table 5.8-2).

The Lmax is the maximum sound level recorded during the measurement period. The Lmax is a useful metric for determining the contribution from sources which emit short-term, high energy sounds.

The Ldn is the day-night sound level calculated for the measurement period. This is a widely recognized metric for assessing potential impacts of noise on people and residential uses over a 24-hour period, including the potential for sleep disturbance.

Source: Sound level measurements by Geomatrix Consultants, Inc.

Sound Level Measurement Location and Sound Source Descriptions

SLM 1 was taken from the back lot of the Apria Health Care building at 2420 38th Street. This location overlooks the railroad tracks on the west side of the tire fire/landfill area of the project site. Major sources of noise noted during the meter setup and retrieval included the train and train horn, overhead aircraft, some noise generated by nearby commercial uses, such as a dumpster, and construction noise from I-5 improvements directly north of the meter. Train noise was an intermittent source while observers were at the meter, but it is clear that across the measurement period, train noise from the BNSF rail line (which is about 100' west and below the grade of this back lot) can be a major source of noise at this location. This measurement is representative of the sound levels generated from nearby commercial properties and also potential train noise levels that may impact the proposed development (January 25, 26, 2007).

SLM 2 was taken in the backyard of the home at 4219 South 3rd Avenue, facing east toward the Acrowood industrial site and the BNSF rail line. Except for minor vegetation, there was a clear line-of-sight to the industrial site directly east but industrial buildings and terrain likely shielded the meter from train noise emanating from the tracks east of the Acrowood facility. The meter was also somewhat shielded from traffic noise on I-5 and local traffic along South 3rd Avenue due to other residences west of the meter. I-5 generated a constant noise, but was not a major source because the lines-of-sight to I-5 at this and similar locations in the Lowell neighborhood were limited due to terrain and elevated highway structures. No other major sources of noise were noted during the meter setup or retrieval. Minor sources included industrial activities from the Acrowood property, overhead aircraft, a neighborhood dog, and

distant traffic. Train noise was not noted as a source during observations, but it is no doubt a major noise source during train activities (January 25, 26, 2007).

SLM 3 was taken at the top of the small hill just south of the 41st Street bridge on the 'triangle site' of the proposed development. The only purpose for this site measurement was to collect noise data as the train passed (about 150 feet to the east of the meter) and to measure distant train horn sounds as the train approached the crossing south of the meter location at Lenora Street (February 1, 2007).

SLM 4 was taken on the Simpson development parcel. This measurement represents existing noise levels at the proposed residential or office park development. Dominant sounds at this location include overhead aircraft, distant but constant traffic noise from I-5 and trains on the rail line as well as distant horns. The rail line is approximately 950 feet west of this meter. The existing Morse Brothers manufacturing facility was not observed to be a major contributing noise source at this location (February 1, 2, 2007).

SLM 5 was taken in Lowell Park facing the Simpson parcel area and the rail line. This location represents sound levels from local traffic during off-peak periods in the Lowell neighborhood including existing train noises and horns. No major sources of noise were noted except train noise and horns, birds, sounds from park visitors, and local traffic. The existing Morse Brothers manufacturing facility was not observed to be a major contributing noise source at this location (February 2, 2007).

The measured Leqs at each location are a convenient way to compare overall levels based on energy-averages over hour-long periods. The L_{max} levels are the highest very short-term (i.e., 0.125 second) events that occurred during each hour of the measurements, and these levels may derive from a variety of sources like a single train whistle or loud motorcycle. At SLM locations that represent existing or future potential residences, the L_{dn} value provides a good indication of overall noise levels and is weighted for the potential for sleep disturbance. A widely accepted L_{dn} suitability threshold for an urban environment is 65 dBA.[10] The measured hourly L_{25} levels can be compared with the 57/47-dBA day/night L_{25} Everett noise limits (Table 5.8-2).

As indicated in Table 5.8-3, the range of hourly Leq sound levels measured at SLM 1 near the north end of the proposed development site were quite a bit higher than at other locations. This is due in great part to train horns at the 36th Street crossing just north of the measurement location. There are no residential uses or sensitive receivers near this location except the Everett Mission and the Humane Society that are located directly beneath the I-5 overpass on Smith Avenue. The measured L_{max}, and L_{25} levels during day and night hours are generally the same respectively, at this location, and are the highest measured levels compared to all other sites. The L_{25} levels at SLM 1 exceeded the respective day/night limits due to noise from existing sources in the vicinity. In fact, the L_{25} values are exceeded at all three long term measurement locations.[11] Sound levels at SLM 1 are indicative of existing noise levels on the Landfill site and the Eclipse Mill portion of the proposed development project that could not be verified with measurements because construction activity dominated the acoustic environment at those locations during the study period.

[10] For example, the U.S. Department of Housing and Urban Development (HUD) uses the Ldn 65 as the threshold between "normally acceptable" and "normally unacceptable" sound levels for residential uses (HUD 1985).

[11] Note that these levels do not represent a violation of the Everett noise rule because these limits pertain to *specific* sound generators. But these levels provide a useful indication of how easily sources in an urban environment that include a busy road and rail line can exceed these limits.

At SLM 2, the existing noise environment is not as loud as the levels at SLM 1 or SLM 4. This is due likely to the shielding effects of neighborhood buildings and terrain in the Lowell neighborhood from the traffic sounds from I-5 and the rail line. It is likely that train noises and in particular, train horns, contribute to the sound levels at this location during the day and night hours, in addition to noise from local traffic and the Acrowood industrial facility particularly during the day. The L_{dn} during the measurement was well below the accepted 65 dBA residential suitability threshold. This indicates that although very high short maximum levels occur, the overall sound levels in the neighborhood are suitable for residential use and that the potential for sleep disturbance is lower at this location. This SLM location does not represent noise levels likely observed near the 'triangle' portion of the development site even though it is located opposite the triangle.

As indicated in Table 5.8-3, measured sound levels at SLM 4 on the Simpson parcel of the project development site are higher than at SLM 2 but lower than SLM 1. During the measurement period, several dominant sounds were noted, especially overhead aircraft, distant traffic on I-5, and distant train noise. These levels indicate that existing noise levels at that location frequently exceed the L_{25} levels of the Everett noise rule [1] but the L_{dn} value of 61 dBA is lower than the 65 dBA suitability limit.

At SLM 5, the hourly Leq during the one-hour measurement was higher than those recorded during the day at SLM 2 although both are located off-site in the same neighborhood. This is due largely to train noise documented during the measurement (short, engine-only trains passed by the meter on more than one occasion) and also due to local traffic on South 3rd Avenue. Local traffic was a dominant noise source during the measurement, audible over the constant noise from I-5. The measurement indicates that local traffic would likely dominate the noise environment whenever train noise was not present.

5.8.2.2 Potential Effects / Impacts of the Project

Impacts Common to the "Action" Alternatives

Development of the site would result in the generation of noise during both construction and the operation of the facilities. Both aspects of the project are considered below.

Construction

During construction of either the preferred alternative or Alternative 2, there would be temporary increases in sound levels near active construction areas of the site due to the use of heavy equipment and along roadways used for hauling construction materials. The increases in noise levels would depend on the type of equipment being used and the amount of time it is in use.

Table 5.8-4 displays typical noise levels produced by some of the sorts of equipment that could be used during construction of this project. Sound levels near many types of construction equipment exceed the levels recommended for residential land uses, and decrease at a rate of about 6 dBA for each doubling of distance from the source(s). Typical construction sound levels in Table 5.8-4 are given for distances of 100, 200, and 400 feet to give some idea of equipment sound levels at varying distances.

Construction of any of the site development alternatives would generate relatively high sound levels on and near the project site during the construction phases of the project. Primary sound sources could include diesel-powered impact hammer pile drivers, cranes, excavation equipment, and concrete and other large haul trucks. As indicated in Section 5.8.1.3, the Everett noise rule exempts noise from temporary construction sites from the noise limits applied to more permanent facilities during daytime hours (7 a.m. and 10 p.m. on weekdays; 8 a.m. and 6 p.m. on weekends). Consequently, daytime construction noise associated with the proposed project is not subject to any level or duration noise limits. In spite of this legal exemption, construction noise associated with the project could nonetheless impact any nearby residential receivers due to the atypical types and levels of noise that construction activities could

generate. In this case, very few off-site residential locations exist near the project site, while most land uses are commercial, industrial or retail. However, Alternative 1 proposes to construct residential uses at several locations on the site. These residences could be impacted by later stages of construction activities, and noise limits would be applicable.

As shown in Table 5.8-4, noise associated with impact hammer pile driving is among the loudest sorts of noise from typical construction activities and equipment. Impact hammer pile driving uses a diesel-powered crane to repeatedly raise and then propel a heavy hammer that pounds piles into the ground. So the hammer mechanism and impact blows of the pile driver represent a loud, repetitious sound source that would be audible if this type of construction were necessary on the project site near the Lowell neighborhood or near any on-site residential locations constructed prior to this type of activity. Such levels would be temporary but impact pile-driving noise could nonetheless be intrusive at some locations due to the distinctive impact nature of the noise, especially if it is necessary to use steel piles.

Table 5.8-4. Typical Noise Levels from Construction Activities Equipment (dBA)

Activity	Range of Hourly Leqs		
	At 100 Feet	At 200 Feet	At 400 Feet
Clearing	77	71	65
Grading	69-82	63-76	57-70
Paving	6-82	60-76	54-70
Erection	66-78	60-72	54-66
	Range of Hourly Sound Levels		
Types of Equipment	At 100 Feet	At 200 Feet	At 400 Feet
Bulldozer	71-90	65-84	59-78
Dump Truck	76-88	70-82	64-76
Scraper	74-87	68-81	62-75
Paver	80-82	74-76	68-70
Impact Pile Driver	62-100	56-94	50-88
Generators	65-76	59-70	53-64
Compressors	68-75	62-69	56-63

Notes:
Source: EPA, 1971 et al.

Other noise sources associated with construction of any of the project alternatives would include excavators, graders, and haul vehicles, and would also likely include the use of a number of smaller pieces of equipment like generators, compressors, and pumps, all of which create noise. Noise from this sort of equipment would be relatively minor compared with the potential levels from pile driving and equipment with large diesel engines, but such noise could nonetheless increase the general drone from activity during construction. If uncontrolled, such noise could at times be intrusive to nearby sensitive uses.

Operation

The primary noise sources associated with operation of the redeveloped site under either action alternative would be off-site and on-site traffic associated with the residential, retail, and commercial uses, and building heating and air conditioning systems (HVAC), and other noises associated with mixed-uses of the site (e.g., voices, car doors, commercial vehicles, etc.).

Off-Site Traffic Noise

Noise from project-related traffic along routes to the project site was considered qualitatively, because it was clear from the nature of the existing acoustic environment that such traffic would have a minor effect on overall noise levels in the area. For example, the primary access to the project area and site will be from 41st Street. Currently, this access road is not a major existing noise source in the site vicinity although the I-5 interchanges along the existing 41st Street (under reconstruction) and the newly reconstructed South 3rd Avenue at 41st Street intersection are busy due to proximity with I-5 and access to the Lowell neighborhood. Because a doubling of traffic volumes causes about a 3-dBA increase (i.e., a small change) in traffic noise from a road, it requires a very large increase in traffic volumes due to a project to make even a minor change in overall sound levels in a busy urban environment like the project vicinity. During the existing PM peak period, fewer than 700 vehicles travel along South 3rd Avenue. However, in the project's design year, 2030, traffic volumes along South 3rd Avenue are predicted to increase during the PM peak hour to approximately 900 vehicles. With either action alternative, vehicle traffic along South 3rd Avenue is predicted to increase by fewer than 50 vehicles during the PM commuter period. Because traffic volumes are predicted to increase by 200 vehicles or less from 2007 to 2030, future traffic-related noise levels would not increase by more than 3 dBA, and such a change would probably not be perceptible to most people. Also, because project-related traffic would comprise a relatively small percentage of overall traffic volumes on South 3rd Avenue in 2030 compared to the future volumes, the proposed project would have little to no effect on future traffic-related sound levels in locations that are already dominated by noise from traffic. Access to the north side of the project site via Pacific Avenue would be through an already congested I-5 interchange area without sensitive receivers. Therefore, no noise impacts would be expected at off-site locations from project-related traffic along these anticipated routes to the site (See Section 5.5 for more details on existing and anticipated future traffic volumes).

On-Site Traffic Noise

At most off-site locations, on-site traffic would also represent a minor noise source because of fairly low volumes (1,000 vehicles or less) and low travel speeds, other more dominant noise sources in the vicinity, such as I-5 and trains, and distance from on-site roads to nearest sensitive receivers. There are two off-site locations where residences could potentially be affected by on-site traffic – the Lowell neighborhood and also a few residences along Smith Avenue just north and below grade of the 41st Street Bridge. In the Lowell neighborhood, the distance between the residences and the on-site roads is more than 500 feet, and the dominant noises as measured at SLM 3 and SLM 5 are local traffic on South 3rd Avenue and distant I-5 sounds. It is unlikely that any traffic from on-site roads would be discernible over other sounds in the Lowell neighborhood. This situation would be similar for residences on Smith Street. Local sounds dominate the environment, and in addition, the residences are far below the bridge and vehicles traveling on 41st Street are not likely to be audible at that location.

Other Noise Sources

Noise from other sources like building HVAC systems received at off-site locations would be subject to specific limits in the Everett noise code during both day and night hours. Specific noise levels would depend on the actual location, height, and design characteristics of individual buildings, which would be determined during the building permitting process. Noise from HVAC systems would need to be controlled so as to comply with the noise limits at the property lines of off-site receivers. Given that there are few residences near most of the project site, except for the Lowell neighborhood, and that terrain and the intervening distances are great (>500 feet), and because noise from HVAC systems is relatively simple to control when it is addressed during the design of facilities, there is little likelihood that building HVAC systems would cause noise issues at off-site locations.

Noise from other miscellaneous minor sources like voices or car doors would be unlikely to cause noise impacts at off-site locations due to the low sound emission levels and the large intervening distances (>500 feet) and terrain between on-site uses and the nearest off-site receivers.

An outdoor entertainment venue with a stage or amphitheater is a possible public amenity component of the Everett Riverfront Development's alternatives, but there is little information as to what sorts of entertainment would perform. The Central gathering area that would be near the potential hotel site could also have outdoor music as part of its activities. Noise from concerts at areas within the Project received at on- and off-site locations would be subject to the Everett noise limits. Concerts with amplified sound would be likely to be audible at nearby uses, especially if such events occur during evening hours when overall sound levels are somewhat lower. However, because the distance to off-site locations is great, and because on-site buildings are likely to shield some concert noise, especially to the north, south and west, it is unlikely that off-site noise impacts would occur. If sound generated from outdoor music at the on-site amphitheater or the gathering area comply with the Everett noise limits for commercial zoning, as is required, impacts to on-site residential users are also unlikely.

Finally, noise levels across the river to the east received from the project site are unlikely to exceed noise limits or cause impacts because there are no existing residential receivers that are within close proximity to the river. The only off-site residences across the river are much farther south of the proposed amphitheater or are located along 43rd Avenue NE and would likely be dominated by noise from local traffic and Highway 2. For these locations reflection off the water is not likely to be a factor in noise transmission from the site because of the intervening distances, terrain differences, building obstructions, and vegetation on both sides of the river.

Site Suitability Considerations

In addition to the evaluation of potential noise impacts associated with the action alternatives, the potential for noise from existing and future industrial and traffic sources off the site to adversely affect proposed new uses also was considered. This section discusses a review of potential noise issues that could affect the suitability of the site for these uses. The analysis reported here is based on preliminary assumptions about the types and locations of uses on the project site.

As indicated in previous discussion, existing noise sources near the project site include traffic, the BNSF railroad, and possibly the Acrowood industrial site. The potential for these existing noise sources to cause unsuitable noise levels for possible new uses was evaluated in general terms based on measured existing levels, consideration of distances from the sources, the cumulative noise from the combination of sources, and the future presence of intervening buildings.

BNSF Rail Line

The existing BNSF rail line comprises a major noise source in the project area. With either of the action alternatives, a spur of the existing rail line would be relocated to the existing tracks (as presented in a previous analysis for relocation of the BNSF tracks.) Also, the closure of 36th Street under the I-5 overpass for the project development would eliminate one train crossing location. Because the train horn contributed to the much higher sound levels measured at SLM 1, this closure would reduce the potential for on-site train horn impacts at many locations north of the 41st Street Bridge that are currently affected by train noise. So even though train traffic on the rail line would still comprise a major noise source, eliminating the high (85 dBA and higher) sound levels from train horns would benefit the entire site as well as nearby off-site locations.

Rail line noise would most likely be an issue for some proposed on-site residential uses due to potential sleep disturbance during nighttime hours. Because Alternative 2 does not include any residential uses, and

because many of the potential retail and office uses are likely to be predominantly daytime uses, rail noise from the main line probably would be less of an issue. But low-frequency diesel engine noise could periodically disturb some uses that require quiet (e.g., noise sensitive office or outdoor common area use). This is particularly an issue at the 'triangle site' south of the site access roundabout where office space is proposed within 150-200 feet of the rail line. At other locations along the rail line, parking is likely to be located near the railroad line as well as other large retail stores that would not be affected by the train noise. These larger buildings are also likely to obstruct, or "shield," other retail uses further east of the buildings and more distant from the rail line, but the extent of shielding by buildings is not possible to estimate because site plans are not yet that detailed.

With the preferred alternative, on-site residential uses may be developed on the Eclipse Mill site, near the Snohomish River waterfront east of the proposed retail areas, at the triangle site south of the 41st Street Bridge, and also on the Simpson parcel development pad. For the same reasons mentioned above for Alternative 2, most residential areas other than the triangle site and the Simpson pad are less likely to be adversely affected by train noise (i.e., distance from rail line, elimination of horn noise due to the closing of the 36th Street crossing, intervening buildings that would shield the residence from train noise.)

On the other hand, residential uses on the triangle site would more than likely be adversely affected by train noise unless special measures are taken to control the noise. Using sound level measurements of the train at SLM 3 and SLM 4, it is possible to estimate the L_{dn} for residential locations at the triangle site. Based on measurements at two on-site locations that included train passby noise, after adjusting for differences in distance, the calculated L_{dn} on the triangle site is 73 dBA. This level is well above the typically applied site suitability threshold of 65 dBA L_{dn}. For this reason, residential uses within close proximity to the rail line would likely be impacted by the train. Any residences constructed at this location should employ noise-reducing designs and materials to ensure interior sound levels are suitable for residential uses.

Off-site Traffic and Industrial Sources

Most of the project site is affected by existing off-site traffic noise, and three areas of the site, the Eclipse Mill site, the Landfill triangle, and the Simpson development pad, may at times be affected by industrial noises. Due to heavy-duty construction activities on portions of the Landfill site and the Eclipse Mill site, it was not possible to determine the contribution from off-site industrial noise sources north of 36th Street to overall sound levels in those areas. However, the sound levels measured at SLM 1 indicate that existing noise levels are relatively loud due to existing sources, including I-5 and train noise. As previously discussed, train horn noise would be eliminated with the closure at 36th Street, which would likely reduce future overall noise levels slightly compared to existing conditions. Traffic noise from I-5 would likely continue to dominate the noise levels in the Eclipse Mill and Landfill areas when the trains were not present. But, because I-5 is elevated above the grade of the Landfill and Eclipse Mill sites, I-5 traffic noise is not as dominant at locations in close proximity to the elevated structure because the line-of-sight to the travel lanes is at least partially obstructed. Traffic-related noise levels at the Eclipse Mill site are likely lower than at the Landfill site, as was observed during field visits.

Along the proposed waterfront common areas and residential uses, off-site traffic likely contributes more to the overall existing noise levels because the distance from I-5 to these locations is greater and the elevated structure has less effect on reducing noise levels. However, new buildings of varying heights would likely at least partially obstruct traffic noise from I-5. The creation of a new neighborhood would also likely change the acoustic environment and sound levels at these sensitive use areas are likely to be far less impacted by off-site sources including traffic and train noise. However, the proposed mixed-use acoustic environment is likely to be similar to other mixed-use urban environments which may be somewhat louder than residential-only neighborhoods such as the Lowell neighborhood. Despite this

acoustic environment, mixed-use settings are often desirable places to live for reasons other than a quiet neighborhood.

At the Landfill triangle site, any noise sensitive uses developed under either action alternative would likely be impacted by train noise, as discussed previously. When the trains are not present, local traffic from the 41st Street Bridge is likely to dominate the overall noise environment at this location. The Acrowood industrial site may also contribute to the overall noise levels if the outdoor storage and work yard is used during warmer, drier months than during the period measured with SLM 2.

At the Simpson development pad, a new neighborhood landscape would likely affect the future acoustic environment by shielding many residences from the distant drone of I-5 traffic noise and from potential noise generated by the Acrowood industrial site. Based on the sound levels measured at SLM 4, train noise and overhead aircraft were the likely contributors to higher sound levels received at the site. Future sound levels at the Simpson pad, whether for office use or residential use, are likely to be similar to the measured levels because although some off-site traffic noise may be shielded, new local traffic would contribute to overall noise levels. Because the existing Morse Brothers manufacturing facility was not observed to be a major contributing noise source at this location during any visits to the project site, this existing industrial use would not be expected to be a major contributor to the future acoustic environment on the project site.

HVAC and Refrigeration Units

Heating, ventilation and air conditioning (HVAC) units may be installed to service either residential units or proposed commercial facilities. Depending on the type of commercial use that may occupy the mixed use area of the preferred alternative, refrigeration units also may be required to protect food at restaurants and grocery stores. Noise from these units may be audible at nearby on-site receivers located east and also north of the proposed mixed use area although specific details about the makes and locations of HVAC and refrigeration units are not yet available. However, provided such equipment is constructed and positioned in a manner that shields these sources of noise from the nearest on-site residential receivers (i.e., through use of screening on rooftops and placement away from residences), and the equipment is designed to operate well within Everett sound level limits, no noise impacts would be expected. With Alternative 2, noise associated with HVAC and refrigeration units is unlikely to affect office/business uses that share the commercial portion of the site.

Delivery Trucks and Loading Dock Noise

Based on preliminary site plans for the preferred alternative, there would likely be loading docks on the west sides of the large commercial buildings and facing I-5. Back-up beepers and other sounds associated with the loading docks would not likely affect residential receivers on the Triangle parcel or the residences proposed for the Simpson Pad more than 700 feet away because of the distance to these receivers and that the buildings themselves would act to shield residences from noise from these activities.

At residential locations proposed in the mixed use area of the development, it is not anticipated that noise associated with trucks and loading docks from the larger (anchor) commercial sites would exceed applicable City of Everett noise limits because the buildings would shield the residences from these sounds. However, delivery trucks and small loading areas that are likely part of the smaller retail locations of the mixed use site that are much closer to nearby residences could result in sound levels that exceed applicable limits, especially at night. Vehicle idling should be minimized and restricted to locations as far as possible from nearby residences. With careful planning, loading areas could be positioned in a manner that shields these sources of noise from the nearest on-site residential receivers. These details will be worked out in the design and permitting of the actual facilities. With Alternative 2, noise associated with

delivery trucks and loading docks is unlikely to affect office/business uses that share the commercial portion of the site.

Outdoor Entertainment

Outdoor entertainment, especially concerts with amplified sound, would be likely to be audible at on-site residential uses, especially when such events occur during evening hours when overall sound levels are somewhat lower. Concert noise is subject to the City noise limits and measures to control such noise would be necessary if noise from the outdoor concert venue reached noise limits for commercial zoning. With Alternative 2, concert noise is unlikely to affect the office uses near the outdoor venue especially as these types of entertainment generally occur after offices and business are closed.

The reader should note that the site noise suitability analysis considered a number of typical urban noise sources such as traffic and trains that can generate sound levels in excess of the accepted levels (i.e., HUD). Estimated future sound levels on some portions of the project site could approach or even exceed the site suitability L_{dn} limits for some uses without implementation of noise-reducing site and building design features and/or other mitigation measures. In those areas of the site where future exterior sound levels could be high, it is highly likely that site planning, design, and construction methods could be implemented to minimize the potential for exterior noise to cause problems in interior spaces. Therefore, this analysis identifies potential on-site noise problem areas, and later discusses possible planning, design, and construction measures that could be implemented to mitigate noise concerns.

Operational Noise Impact Summary

The noise impact analysis suggests that noise related to the proposed project would be unlikely to cause off-site noise impacts at residences near the site. There would be potential for on-site suitability issues at residences under Alternative 1 due to construction and for both alternatives, train noise at the Landfill triangle.

Impacts Common to the "No Action" Alternative

- As noted in Section 2.3, Project Alternatives, future development impacts of the no-action alternative would be similar to Alternative 2 as identified in Section 2.3.

5.8.2.3 Mitigation

Construction Noise Mitigation Measures Common to All Alternatives

Although construction noise is exempt from the City of Everett noise limits during daytime hours (See Section 5.8.1.3) and no mitigation is legally required, noise from construction activities related to the proposed project could nonetheless disturb nearby residents. The potential for such disturbance could be reduced with the simple, common-sense techniques described below. The following construction noise mitigation techniques are suggestions for times when construction activities occur close to existing residences or businesses.

Construction noise could be minimized with properly sized and maintained mufflers, engine intake silencers, engine enclosures, and turning off equipment when not in use. Stationary construction equipment should be located away from sensitive receiving properties where possible. Where this is infeasible, or where noise impacts would still be likely to occur, portable noise barriers should be placed around the equipment with the opening directed away from the sensitive receiving property. These measures are especially effective for engines used in pumps, compressors, welding machines, etc., that operate continuously and contribute to high, steady background noise levels. In addition to providing about a 10-dBA reduction in equivalent sound levels, the portable barriers demonstrate to the public the contractor's commitment to minimizing noise impacts during construction.

Although as safety warning devices back-up alarms are exempt from noise ordinances, these devices emit some of the most annoying sounds from a construction site. Where feasible, equipment operators should drive forward rather than backward to minimize this noise. Another potential mitigation measure would be to ensure that all equipment required to use backup alarms utilize ambient-sensing alarms that broadcast a warning sound loud enough to be heard over background noise but without having to use a preset, maximum volume. Another alternative would be to use broadband backup alarms instead of typical pure tone alarms. Such devices have been found to be very effective in reducing annoying noise from construction sites. Noise from material handling can also be minimized by requiring operators to lift rather than drag materials wherever feasible.

Substituting hydraulic or electric models for impact tools such as jack hammers, rock drills and pavement breakers would also reduce construction noise. Electric pumps could be specified if pumps are required.

Pile driving would likely be the most intrusive and annoying source of construction noise at the affected receivers. If possible, impact pile-driving should be minimized in favor of less noisy pile installation methods. If impact pile driving is required, the potential for noise impacts should be minimized by strict adherence to daytime only (or more stringent limits), especially when pile driving is within 500 feet or less of sensitive on or off-site receivers. Such a restriction is desirable because background noise would be more likely to at least partially obscure construction noise during the day, and because most people are more sensitive to noises at night when they expect quiet and when they are trying to sleep. Pile driving noise may also be reduced using sound-absorbing barriers or other means.

Finally, a potential mitigation measure would be for the developer to establish a noise control "hotline" that would allow neighbors affected by noise to contact the City or the construction contractor to ask questions or to complain about particularly noisy activities.

Operational Noise Mitigation Measures Common to All "Action" Alternatives

The analysis of the environmental noise implications of operation of the action alternatives concluded that noise from project-related activities would be unlikely to result in adverse impacts at off-site locations. Means to mitigate on-site operational noise at off-site locations is therefore not warranted or proposed.

Site Suitability

Based on the analysis of potential compatibility of existing and potential future on-site noise sources and potential new uses, certain areas of the site could warrant consideration of noise mitigation using site and building design and construction methods and materials as part of future planning for the development site under either action alternative at the Landfill triangle site. Such measures could include one or all of the following components:

- eliminating noise-sensitive uses from locations near the rail line
- increasing distance of sensitive receivers from the roadways and rail activities
- using a site layout that shields sensitive uses from noise source with intervening buildings
- employing noise reduction building designs that do not rely on open windows for ventilation and tightly seal exterior partitions to prevent noise infiltration
- placing noise-sensitive interior spaces like bed rooms away from walls closest to exterior noise sources
- using intervening interior spaces like hallways to insulate noise-sensitive spaces from exterior walls near exterior noise sources

- using added density building materials to reduce interior sound levels
- placing outdoor use areas behind structures, noise barriers, or other obstacles to the transmission of noise from roads and industrial uses
- ensuring that building construction techniques result in interior noise levels in residential units no greater than L_{dn}=45
- eliminating outdoor use areas like balconies in high noise area

For those residential units where outdoor noise levels would exceed the 65-dBA L_{dn} (i.e., the proposed residential area of the Triangle site) and no mitigation is feasible to reduce the exterior sound levels, noise reduction for the interior space would be required to comply with the City's noise policy for residential developments. Typical residential construction techniques should achieve at least a 20-dBA reduction in interior noise, if the windows remain closed, reducing indoor levels of the Triangle site to 53 dBA L_{dn}. Using careful construction techniques designed to ensure good thermal insulation would likely provide up to 28 dBA of noise reduction inside the residence, resulting in interior L_{dnS} (from train noise) of 45 dBA, again assuming that the windows remain closed. These construction techniques would include minimizing openings to the outside; ensuring that gaps around doors, vents, and windows are caulked and sealed; and constructing exterior walls with 2 x 6 wall construction with extra sheeting to increase mass and/or the use of "sound deadening board" on the interior wall and filling the wall cavity with uncompressed insulation material.

In addition to careful attention to the exterior wall construction, windows, and doors, active ventilation systems will be required to ventilate and cool these residences, since the noise mitigation techniques identified above would need to ensure that the residences are air-tight. Once a window were opened, only a 12-15 dBA reduction in exterior noise levels would be expected, resulting in potential interior sound levels of up to 58 dBA L_{dn}. This level far exceeds levels considered acceptable for interior use, particularly for bedrooms. Special attention should be paid to ensure that adequate gasket materials (e.g., compression gaskets) are used. Also, selecting windows with higher sound reduction abilities (i.e., 30 dBA or greater for traffic noise) and using smaller window openings on the sides of the houses facing the railine would help to ensure that interior noise reductions of 28 dBA are met. Any air inlet openings required for an active ventilation system should be placed on exterior walls or rooftops opposite the railine to ensure that they do not transmit noise to the interior of the residence.

5.8.3 Environmental Justice

5.8.3.1 Methodology

Environmental Justice analyses, as described under Title VI of the Civil Rights Act of 1964 and Executive Order 12898, address disproportionately high and adverse impacts on minority or low-income populations. The U.S. Environmental Protection Agency's (EPA) office of Environmental Justice defines environmental justice as:

> *"The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal and commercial operations or the execution of federal, state, local and tribal programs and policies." (US EPA, 1998).*

The following discussion addresses environmental justice as related to the land-use alternatives being considered for the project. Minority and low-income populations in the vicinity of the project are identified, followed by a discussion of the impacts that the alternatives might have on these populations.

5.8.3.2 Public Involvement

Public involvement opportunities are a key component of compliance with the Executive Order and a means of preventing disproportionately high and adverse effects. This includes providing meaningful access to public information concerning the human health, social or environmental impacts of a project and soliciting input from affected low-income and minority populations. A more detailed description of the public outreach efforts for the project is provided in Chapter 6.

5.8.3.3 Demographic Analysis

Demographic information obtained from the U.S. Bureau of Census was used to identify minority populations and low-income communities.

5.8.3.4 Existing Conditions / Affected Environment

The affected area is defined as the area where project activities (including property acquisition and the construction of all proposed facilities) and potential environmental impacts would occur. For this environmental justice analysis, the affected area was defined as the area encompassed by Census Tract 406 and 415, and bounded approximately by I-5 to the west, the Snohomish River to the east, Pacific Avenue to the north and Rotary Park and Lowell Snohomish River Road to the south (see Figure 5.8.2-1). These Census Tracts provide the best available demographic information for the project site and the surrounding area as of the publication date of this document. The affected population is defined as those people who reside within the affected area.

The general population to which the affected population was compared (that is, the reference population) is defined as the population of the area in which this project would have a measurable effect, both positive and negative. Because of the scope and nature of the project, in that the project components will serve a much larger area than just where the construction activities and operational changes will occur, this environmental justice analysis used the entire City of Everett as the reference area.

Low-Income Population

For the purposes of this environmental justice analysis, low-income is defined as a 1999 household income below the statistical poverty threshold as reported in the 2000 U.S. Census (U.S. Census Bureau 2003). A low-income area is defined as one where the percentage of the area's population that is below the statistical poverty threshold exceeds 50 percent, or consistent with environmental justice guidelines published by the Council on Environmental Quality (CEQ), one that is "meaningfully greater" than the reference population (CEQ 1998). To identify low-income areas that could be affected by the project, this analysis used the smallest geographic unit for which census income data are reported: the census block group. Based on the census data, no census block groups within the affected area have more than 23 percent of the population below the statistical poverty threshold.

Minority Population

For this analysis, minority is defined as individuals listed in the 2000 Census as nonwhite (total population minus white-alone population). A minority population is defined as any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly

affected by the project. Consistent with environmental justice analysis guidelines published by CEQ, a minority area for this analysis is defined as one where the percentage of the area's minority population exceeds 50 percent, or is "meaningfully greater" than the reference population (Federal Highway Administration [FHWA], 1998). Minority populations were defined as individuals listed in the 2000 Census as considering themselves to be nonwhite (Black or African American, American Indian and Alaskan Native, Asian, Pacific Islander, or other race) or Hispanic or Latino (a person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race). To identify minority populations that could be affected by the project, this analysis used data reported at the census block group level to minimize the risk of missing pockets of low-income individuals. Based on the census data, no census block groups or blocks within the affected area have a minority population of more than 21 percent.

Low-Income and Minority Populations within the Affected Area

A total population of approximately 2,525 people resides within the affected area. The minority population within the affected area consists of approximately 421 people and represents approximately 17 percent of the population in the affected area. The ethnic composition of the minority population is primarily Hispanic or Latino (approximately 6 percent). On average, census block groups within the affected area have a lower minority population than the City of Everett as a whole. No census block group within the affected area exceeds 25 percent minority population.

The low-income population within the affected area consists of approximately 392 people and represents approximately 16 percent of the population in the affected area. Census Tract 406 has a higher low-income population than the City of Everett; however, this figure is not "meaningfully greater" than the reference population. On average, census block groups within the affected area have a similar low-income population than the City as a whole. No census block group within the affected area exceeds 25 percent low-income population.

Table 5.8-5 presents the percentage of low-income and minority individuals for each of the census block groups within the affected area and reference area (City of Everett). Data shown in Table 5.8-5 are taken from the Census 2000 Summary File 3 (SF 3), which was derived through the creation of geographic weighting areas designed to produce good-quality estimates. The goal of SF 3 is to identify large differences among areas or large changes over time (US Census Bureau. 2002. *Comparing SF 3 Estimates with Corresponding Values in SF 1 and SF 2*. Last updated August 8, 2002. Accessed at: http://www.census.gov/Press-Release/www/2002/sf3compnote.html on June 19, 2007). Because environmental justice analysis looks for "meaningfully greater" – or large differences – in population characteristics, SF 3 was chosen as an appropriate data set.

Table 5.8-5. Low income/Minority Individuals within the Census Block

Area	Population	Percent Nonwhite	Percent Hispanic or Latino	Percent of Population Below Poverty Level
Affected Area	2525	17%	6%	16%
Census Tract 406	970	21%	6%	23%
Census Tract 415				
Block Group 1	846	19%	9%	11%
Block Group 2	709	8%	2%	12%
Reference Area (City of Everett)	91290	22%	7%	13%

Notes:
Source: U.S. Census Bureau Summary File 3 (SF 3) (2000).

5.8.3.5 Potential Effects/Impacts of the Project

Impacts Common to the "Action" Alternatives

Under this scenario, conditions experienced by environmental justice populations would be largely improved. Like other residents of the City, environmental justice populations would benefit from an increase in open space and other associated public amenities such as improved public access to the riverfront in the form of boat launches and pedestrian/bicycle trails. Alternative 1 includes a mix of single- and multi-family residential units that may provide an increase in affordable housing opportunities for environmental justice populations. Rehabilitation of a former, mostly industrial site (previously used as a landfill) will provide improved environmental conditions. Mixed commercial uses at the project site will provide local retail and commercial opportunities not currently readily accessible in the project area. Conditions experienced by environmental justice populations under Alternative 2 would be similar to those experienced under Alternative 1. However, Alternative 2 does not include housing units and would therefore not provide a potential increase in affordable housing opportunities for environmental justice populations.

Two City-owned and operated facilities (animal shelter and public works storage yard).A community manufacturing facility (Diversified Industries) may be relocated in the future. There are no residential displacements or anticipated encroachment impacts for any alternative.

Impacts of the No-Action Alternative

Under this scenario, conditions experienced by environmental justice populations would be relatively unchanged compared to existing conditions. Under the no-action alternative, the development of commercial/residential spaces and associated public amenities would likely be postponed because it would depend on a future user or users that are not known at this time. As noted in Section 2.3, Project Alternatives, future development impacts of the no-action alternative would be similar to Alternative 2. See Section 5.8.3.3 on the issue of potential business displacement under the no-action alternative.

5.8.3.6 Mitigation

Except as described in Section 5.8.3.4 regarding relocations, mitigation actions have not been proposed for environmental justice at this time.

5.8.4 Relocations

5.8.4.1 Introduction

This section describes the property acquisitions, displacements and relocations that would be required for the proposed project. Although this section evaluates potential relocation impacts, related issues concerning land use are described in Section 5.1, Land/Shoreline Use and Housing.

5.8.4.2 Existing Conditions / Affected Environment

The affected environment encompasses the riverfront properties, including the sites commonly known as the former Simpson site, the former Everett Landfill/Tire Fire site and the Eclipse Mill site, currently under consideration for redevelopment (see Section 2.1, Description of the Project Site). In addition to these parcels, several privately owned parcels immediately north of the Eclipse Mill site are included in the scope of this redevelopment program. There is no specific targeted redevelopment for those parcels at this time, and therefore they remain in private ownership. The BNSF railroad has operating tracks that will remain on the periphery of the project and presently has easements that preserve areas for potential wetland mitigation for BNSF impacts. The parcels at the north end of the project area, owned by Stuchell Enterprises and Newland Construction, would be rezoned at the same time as the remainder of the project area but may develop independently of the current project.

Current buildings located on the project site include two City-owned and operated facilities (animal shelter and public works storage yard) and a manufacturing facility (Diversified Industries) operated by a non-profit organization in a building owned by the Port of Everett. All other tenants at the project site involve short-term, construction-related uses. A construction office building (Newland Construction) may remain. If construction office trailers are located on property that is redeveloped similar to the remainder of the project area, those trailers would be removed.

5.8.4.3 Potential Effects/Impacts of the Project

Impacts Common to the "Action" Alternatives

No property acquisitions were identified for these alternatives. Three relocations would occur as a component of the action alternatives. The two City-owned and operated facilities (animal shelter and public works storage yard) will be relocated to other City properties. The building for the community manufacturing facility (Diversified Industries) is rented from the Port of Everett and has been on a month-to-month lease for several years. That facility may be relocated; however, at this time it is unknown where the facility would relocate. Furthermore, because of its use, suitable replacement property for Diversified Industries may not be available within close proximity to its present location. If a suitable location is not available nearby, the search for another site could be expanded to include properties at a greater distance from the current location on which to locate the facility.

Impacts of the No-Action Alternative

Under this scenario, relocations within the project area would occur over time. As noted in Section 2.3, Project Alternatives, future development impacts of the no-action alternative would be similar to Alternative 2.

Because of the phased approach of the no-action alternative, all replacement property may not be needed at the same time, and the market would likely need to support provision of only one property at one time. This phased demand would be expected to make it easier to find replacement properties when needed. However, if the local economy continues to grow, it would be harder to find suitable replacement properties for potential displacements that would be near their present location. If the economy declines, it may be easier to relocate displacements; however, the general loss of industrial property in the City might still make this difficult for those uses. Economic conditions change frequently, however, and future conditions cannot be predicted.

5.8.4.4 Mitigation

Mitigation actions have not been proposed for relocations at this time. However, if the Port of Everett or OliverMcMillan obtains federal funds for redevelopment purposes, relocation services pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs (Chapter 61 of Title 42, United States Code) may be required if Diversified Industries is displaced. Determination of how relocation requirements may apply to Diversified Industries will likely require interpretations that are beyond the scope of this document.