



**ADDENDUM NO. 2 TO THE EVERETT RIVERFRONT REDEVELOPMENT  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
January 8, 2010**

**Original Proposal.** The Everett Riverfront redevelopment will include construction of a mixed-use commercial/residential development, shoreline and habitat restoration, and rehabilitation of a former, mostly industrial site. The project includes the construction of up to 900,000 square feet of mixed commercial use; 200,000 square feet of hotel space; and up to 1,400 residential units (multi- and single-family). The ultimate mix of uses constructed will be determined by market demand and the land use capacity of the site (type, location, and size of uses and structures, and infrastructure capacity).

The proposal also included a rezone to Waterfront Commercial, and approval of a Planned Development Overlay Zone and Development Agreement (the Development Agreement) for the proposed project by the Planning Commission and City Council. The rezone, Planned Development Overlay Zone and Development Agreement were approved by City Council in March 2009. The proposal also includes: (1) the issuance of shoreline substantial development and other local, state and federal permits for construction of the project; (2) various real property and street vacation actions by the City of Everett (the City); (3) public works and public amenities improvements and permits; and (4) related agreements and authorizations to implement the project.

**Phased Review/Prior Environmental Review.** The proposal is part of a phased review under the State Environmental Policy Act (SEPA). Phased review is appropriate when going from the plan-level to the project-level, and when going from an earlier stage to a later stage of development (WAC 197-11-060(5)). The City of Everett issued a Final Environmental Impact Statement (FEIS) on June 11, 2008 for the redevelopment of the riverfront property. A Draft EIS was issued on December 21, 2007. Addendum No. 1 to the EIS was issued on November 24, 2008.

Chapter 2 of this Addendum includes additional information on previous SEPA reviews related to the project site and proposal.

**Purpose of this Addendum.** The redevelopment is a public/private partnership. The Riverfront Redevelopment EIS addressed amenities to be provided by the developer, OliverMcMillan, LLC (OM), including wetland and buffer enhancements, trail extensions, a 1.5-acre Central Gathering Place, park and open spaces within the residential development, and possibly a multi-purpose boat dock. The EIS generally evaluated public amenities to be provided by the City. The purpose of this Addendum to the EIS is to evaluate the more detailed improvements set forth in the City of Everett Riverfront Development Public Amenities Master Plan.

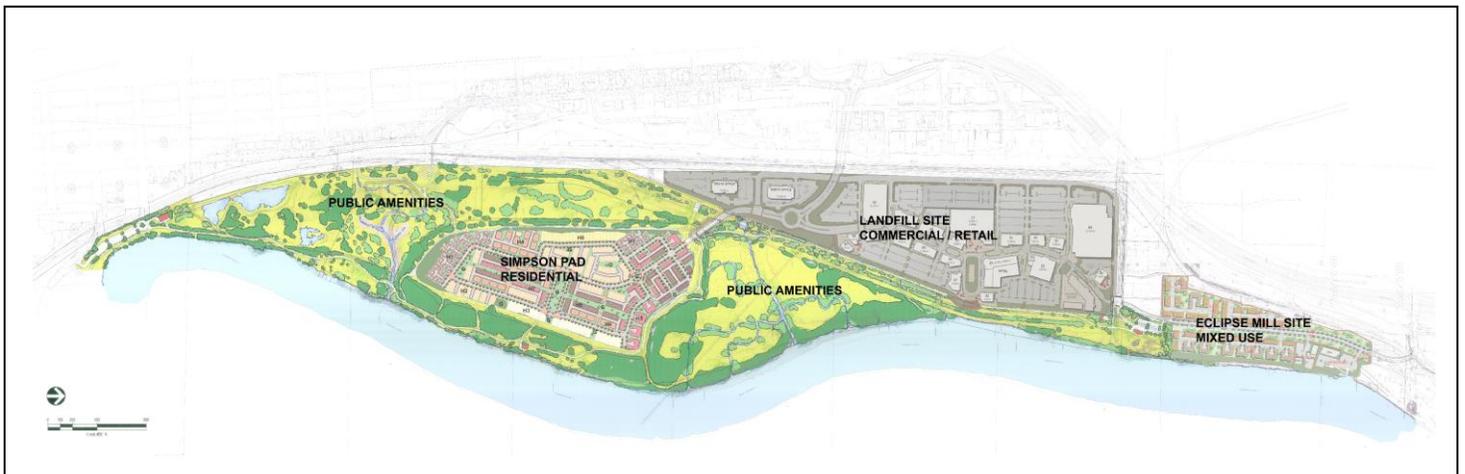
The proposed action is the adoption by City Council of a Riverfront Development Public Amenities Master Plan. The City intends for the plan to be incorporated into the Everett Park and Recreation Comprehensive Plan. Prior to City Council adoption of the Public Amenities

Master Plan, the Everett Parks Board of Commissioners will recommend to the City Council adoption of a Public Amenities Master Plan. The proposed action also includes issuance of permits for the public amenities, including wetland, stream and habitat enhancements.

The Riverfront Development Public Amenities Master Plan proposes increases in active and passive site uses, with a specific goal of increasing public access to the Snohomish River and its shoreline in the Everett Riverfront District. Proposed improvements include the following:

- A new 3-acre public park.
- Proposed improvements to Lowell Riverfront Park at the south end of the site.
- An expanded and upgraded riverfront trail system.
- The conservation, enhancement and restoration of natural areas and wetlands, streams, and buffer areas, including rerouting current stream flows to be consistent with their historic passages.
- Construction of a wetland to provide for treatment to surface waters composed of flood flows and base flows from Bigelow Creek.
- Removing pilings in strategic locations, where shoreline restoration and enhancement efforts are planned.
- Multiple interpretive elements located with picnic facilities, trails, and overlooks, and potentially a facility at the south end of the site in Lowell Riverfront Park.

**With the proposed mitigation, implementation of the public amenities plan will not result in significant adverse environmental impacts.**



### **Relationship between the public amenities and the OM proposal.**

#### **Project Location**

The project site is located on the west side of the Snohomish River, east of I-5, south of Pacific Avenue, and north of Rotary Park and Lowell-Snohomish River Road. The proposed redevelopment area entails approximately 211 acres. The geographic scope of the project site is broadly defined such that it includes properties in the description that are not presently controlled by the City or OliverMcMillan, LLC (the owner/developer and applicant for the majority of redevelopment of the site) for redevelopment or the City but may be added later.

**Proponent**

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**Lead Agency**

City of Everett, Washington

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**HWA GeoSciences** – Geotechnical engineering, riverbank stabilization analysis

**Heffron Transportation** - Transportation

**Miller Hull Architects** – Architectural planning and design

**City of Everett Planning and Community Development**

**Location of review copies of the EIS, Addenda No. 1 and 2, and Background Information**

Review copies of the DEIS, FEIS, Addenda, and the Riverfront Development Public Amenities Master Plan are available at the two City of Everett Public Libraries: Main Library at 2702 Hoyt Avenue and Evergreen Branch Library at 9512 Evergreen Way

Review copies of the EIS and the background documents are also available for review or purchase from 8AM to 5 PM Monday through Friday at:

City of Everett, Planning and Community Development Department  
2930 Wetmore Avenue, Suite 8A  
Everett, WA 98201

The EIS and Addendum No. 2 may also be viewed on-line at

<http://www.everettwa.org/default.aspx?ID=1075>

**Comment Period.** There is a 30-day public comment period for this Addendum. Comments must be received by **February 8, 2010**. Submit comments to:

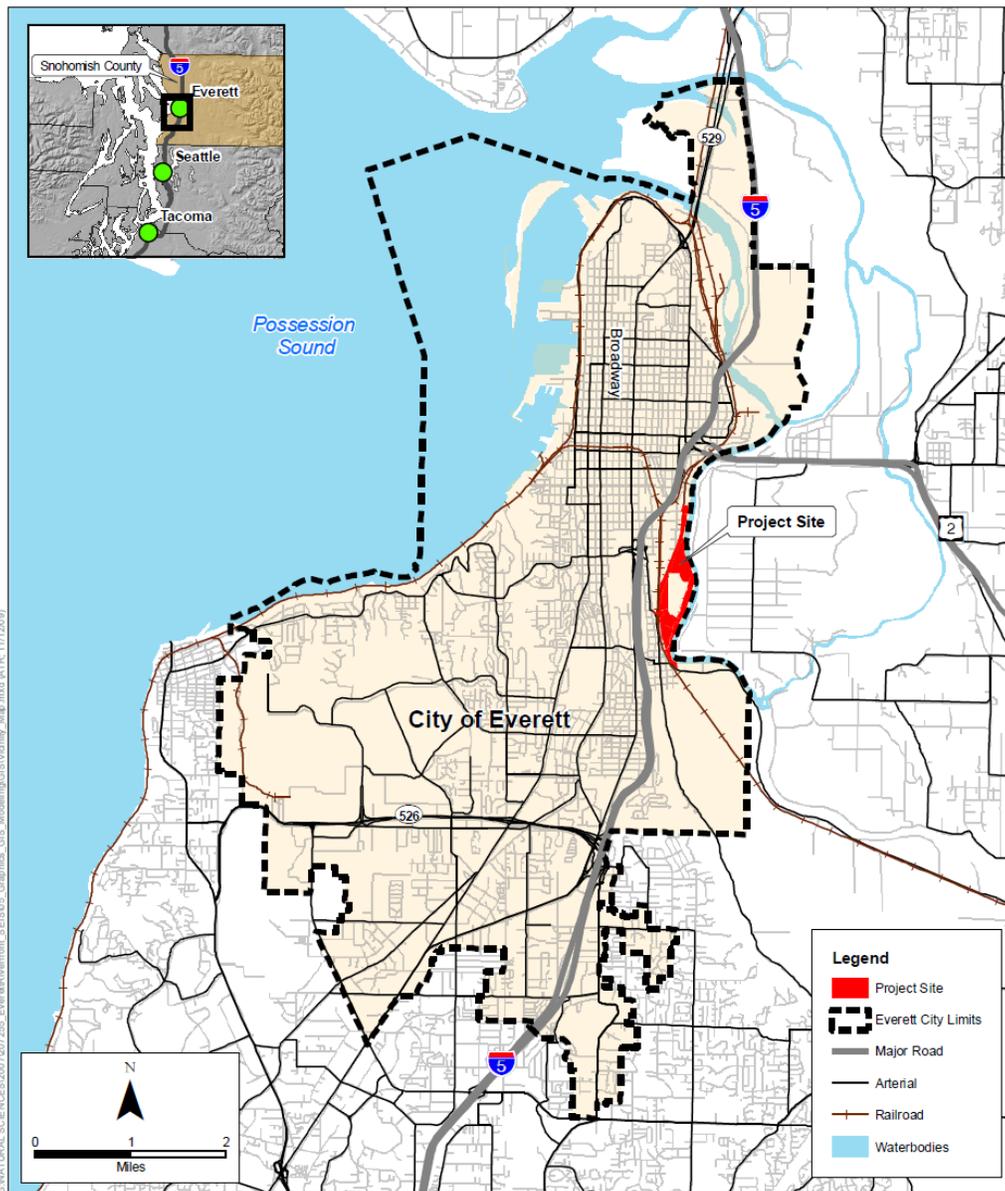
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**Date:** January 8, 2010

**Signature:** \_\_\_\_\_

We strive to provide special accommodations for individuals with disabilities. Please contact Mary Cunningham at 425-257-7131 as soon as possible if special accommodations are needed.

The City of Everett hereby gives public notice that it is policy of the City to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all its programs and activities.



SOURCE: Snohomish County 2003, 2004, 2005 Everett Riverfront 207255 Vicinity Map

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# **CHAPTER 1. DESCRIPTION OF THE PROPOSAL AND PROJECT PHASING**

## **1.1 INTRODUCTION**

The proposed action is the adoption by City Council of a Riverfront Development Public Amenities Master Plan. The City intends for the plan to be incorporated into the Everett Park and Recreation Comprehensive Plan. Prior to City Council adoption of the Public Amenities Master Plan, the Everett Parks Board of Commissioners will make a recommendation to the City Council on adoption of a Public Amenities Master Plan.

The Riverfront Development Public Amenities Master Plan proposes increases in active and passive site uses, with a specific goal of increasing public access to the Snohomish River and its shoreline in the Everett Riverfront District. Proposed improvements are described below starting with those at the north end of the site. Figure 1 illustrates the proposed Public Amenities Master Plan. Figure 2 breaks the site into project areas that are connected and likely to be permitted and constructed together. Where appropriate, this Addendum breaks down the analysis of project descriptions, impacts and mitigation into these project areas.

## **1.2 3-ACRE PARK**

A new 3.3-acre public park will be located north of 36th Street. Proposed improvements to the park include on-street and off-street parking, a group picnic building with restrooms, a broad level lawn for informal gatherings and events such as arts festivals or farmers markets, an unstructured children's play area, a floating dock for watercraft and ADA access to the river, an associated view pavilion/river overlook, and stormwater treatment facilities. Consideration is being given to retaining and restoring a relic log crane along the riverbank as public art. The park will be the nexus of the Railroad Corridor Trail, the park's looped internal trail, on-road bike lanes through OliverMcMillan, LLC's retail development, and trail extensions to the north and west of the site. Existing shoreline armoring will be removed in places, and the riverbank restored to a more natural condition to the extent allowed by river hydraulics, upstream and downstream bank conditions, and the need to protect existing and proposed infrastructure. A 50-foot-wide riparian corridor will be enhanced with native vegetation. Pedestrian access to the river will be allowed at controlled locations, such as to access the proposed float and to provide access to the water for fishing, wildlife viewing, and other water-dependent recreational activities. See Figure 3.

## **1.3 RAILROAD CORRIDOR ENHANCEMENTS**

The railroad corridor is located at the base of the landfill, south of the 3-Acre Park, and west of the West and North Wetland Complexes. The corridor is proposed to contain a complex of trails and wetland and buffer creation and enhancement as mitigation for impacts to wetlands from trail construction and other improvements proposed by the Public Amenities Master Plan. Figure 4 shows a cross section through the railroad corridor.

The Public Amenities Master Plan includes re-routing of Bigelow Creek and Walton Creek to alignments consistent with their historic passages (see Sections 1.4 and 1.8 below). Those actions will divert much of the current surface flow away from the ditches/wetlands along the railroad corridor. Most of the ditched wetlands are proposed to be filled. The remaining wetlands are expected to retain sufficient hydrology as a result of other proposed enhancements. Proposed mitigation includes the creation of new wetlands and the enhancement of remaining wetlands within the corridor. Mitigation will also occur in this area for wetland fill in the 3-Acre Park.

The City will be responsible for constructing the permanent trail through the railroad corridor. The Public Amenities Master Plan proposes that it be primarily on a shared maintenance/emergency access road at the base of the landfill. This section will be a total of 23 feet wide with 12 feet of asphalt, two 2-foot-wide crushed rock shoulders, a 5-foot-wide jogging/refuge lane, and a minimum 1-foot level, unpaved span at each side of the trail for safety. Loop trails would head into Wetland C from this section. The southern portion will be primarily a connector trail with some bridge/boardwalk sections. It would be 12 to 14 feet wide with 8 to 10 feet of pavement. A portion of the proposed connector trail would be constructed on fill placed within a small area of Wetland C encumbered by a restrictive covenant limiting excavation within its boundaries. Figure 5 shows the trail connections at upper Wetland C. The Public Amenities Master Plan also proposes spur loop trails on boardwalks/bridges over Wetland C with viewpoints and interpretive signs. See Figure 6.

Multiple connections to OliverMcMillan, LLC's Central Gathering Place are proposed, with stepped paths and accessible ramps that intersect the trail system. In some areas, trails will serve multiple purposes. For example trails connecting to OliverMcMillan LLC's proposed Central Gathering Place may also provide utility maintenance access.

Trail construction and wetland creation, and other habitat enhancement work within the railroad corridor would be coordinated with work in the corridor proposed by OliverMcMillan, LLC, BNSF Railway, Snohomish County PUD, and City of Everett utilities. That portion of the railroad corridor south of the 41<sup>st</sup> Street bridge will be used by the BNSF Railway and the City as wetland and habitat mitigation areas for projects unrelated to the Public Amenities Master Plan. OliverMcMillan, LLC will be completing wetland and shoreline habitat mitigation, installing native plantings and large woody debris within a 50-foot-wide buffer enhancement zone located between Wetland C and the Landfill site, and constructing a temporary trail along the old railroad bed between the Simpson Pad and the 3-Acre Park. The Snohomish County PUD will be relocating an existing electrical transmission tower within or adjacent to the corridor, and the City will be constructing new wastewater and stormwater conveyance facilities, a groundwater cut-off wall, and access to the existing leachate collection system within the corridor prior to construction of the trails and wetland creation and enhancement work associated with the Public Amenities Master Plan.

#### **1.4 NORTH WETLAND COMPLEX ENHANCEMENTS**

The North Wetland Complex consists of the majority of Wetland C. Addendum No. 1 to the EIS identified goals for the proposed restoration of Wetland C, which would provide mitigation for a

proposed reduction of the regulated buffer and impacts to shoreline habitat associated with OliverMcMillan, LLC's proposal. The goals for the restoration proposal as identified in Addendum No. 1 are (1) to reestablish a tidally influenced forested, scrub-shrub and emergent marsh similar to Otter Island; (2) to increase tidal exchange within Wetland C by construction of a limited number of distributary tidal channels that will connect out to the Snohomish River; and (3) to create small planting islands to establish forested and scrub-shrub wetland communities. The proposal also includes removing pilings and enlarging existing outlet constrictions along the bank of the river.

The Public Amenities Master Plan identifies improvements that would implement the goals for restoration identified in Addendum No. 1 and provide compensatory wetland and stream mitigation for other elements of the Public Amenities Master Plan as required by City code. The Public Amenities Master Plan proposes to reestablish the historic connection between baseflows in the West Ditch Creek sub-basin and the central channel in Wetland C, to enhance tidal influence in Wetland C through the construction of a network of small tidal channels, and to enhance the existing wetland channel that bisects Wetland C. This work would temporarily remove long standing beaver dams and widen portions of the central channel of Wetland C to increase tidal exchange within the wetland. Following the completion of the enhancement work the drainage through Wetland C would be named "Walton Creek", after a lumber mill that once operated on the site. Additional habitat enhancements to Wetland C would be coordinated with the work in OliverMcMillan, LLC's proposal, including removing piling along the shoreline adjacent to the Wetland C complex. See Figure 7.

## **1.5 WEST WETLAND COMPLEX ENHANCEMENTS**

The central portion of the West Wetland Complex including northern portions of Wetland D is encumbered by a restrictive covenant limiting excavation or increasing flow velocities within its boundaries. The Public Amenities Master Plan proposed wetland enhancements that include the creation of wetland hummocks and islands using imported topsoil and/or organic soil amendments. These areas will be planted with scrub-shrub or forested wetland vegetation to increase complexity and habitat diversity within emergent wetland areas. Large woody debris and brush piles will also be added to improve habitat value. No excavation is proposed within the restrictive covenant area within Wetland D.

## **1.6 RIVERFRONT TRAIL, GROUP PICNIC, AND CONNECTIONS TO SIMPSON PAD**

The Public Amenities Master Plan proposes an expanded and upgraded riverfront trail system. New trails and trail connections would include accessible connections to public amenities and public-use features within the private developments. Multiple connections will be provided to OliverMcMillan, LLC's proposed developments on the Simpson Pad. In some areas, trails will serve multiple purposes. For example trails connecting to OliverMcMillan, LLC's proposed residential development may also provide secondary emergency and park maintenance access.

The existing Riverfront Trail will be renovated for the higher volume, multi-modal use anticipated for a regional facility. The trail will pass from Lowell Riverfront Park north along the river, and connect to downtown Everett on a dedicated bike lane and adjacent sidewalk on

the 41<sup>st</sup> Street overpass. The trail width will be expanded from 10 feet to 12 feet of pavement, with 2-foot and 5-foot crushed rock shoulders. Where it crosses the new Bigelow Creek outfall, it will be on a bridge. See Figure 8. Near the northeast portion of the Simpson Pad, the existing alignment may be abandoned to avoid an unstable riverbank section and a new trail constructed inland, allowing the shoreline area to be restored (Figure 1). The City would coordinate with the Snohomish County PUD to provide ongoing access to an existing PUD electrical transmission tower within Wetland C prior to any trail relocations in this area. An alternate or complimentary alignment would route some regional trail users through the Simpson Pad on the residential streets.

Picnic tables, shelters, and interpretive signage could be included throughout the trail system, with group shelters provided near vehicular access and parking areas. See Figure 9. Loop or spur trails would allow for increased wetland, river, and wildlife viewing opportunities. Trails may include a combination of boardwalk, bridged, and fill on grade sections.

Expansion to a regional trail facility and alignment changes to the trail as identified in the Public Amenities Master Plan would impact portions of wetland and wetland, stream, and shoreline buffer located within and adjacent to the East Wetland Complex, South Wetland Complex, and a small area in the southeastern corner of Wetland C. Proposed mitigation for impacts includes the creation of new wetlands and the enhancement of remaining wetland and buffer within the East Wetland Complex and the southeastern portion of Wetland C.

## **1.7 LOWELL CROSSING**

A new grade-separated crossing will connect the Everett Riverfront District to the Lowell neighborhood. The Public Amenities Master Plan provides a conceptual design for the crossing – an earthen mound with a spiral path leading to an above-grade overpass of the railroad tracks. See Figure 10. An alternative to the earthen mound is to construct a spiral ramp, which occupies a smaller footprint, but would have a steeper slope and have potentially higher construction costs. The west end configuration would be a ramp extending parallel to the current road alignment, ending at the sidewalk on the north side of South 2<sup>nd</sup> Avenue, with a secondary path curving north into Lowell Neighborhood Park.

## **1.8 BIGELOW CREEK AND SOUTH WETLAND COMPLEX ENHANCEMENTS**

The Public Amenities Master Plan includes re-routing Bigelow Creek to an alignment consistent with its historic passage. A new Bigelow Creek channel will bisect the South Wetland Complex. See Figure 1. Near the river, the new channel will join two small existing drainages that convey flows to the river from portions of the South Wetland Complex. The existing drainages will be enhanced, and two existing culverts will be removed and the streams daylighted. Relocation and restoration of Bigelow Creek will require excavation within and adjacent to the South Wetland Complex. Most of the length of the new stream will be tidally influenced and will provide the opportunity to restore tidal influence to areas of wetlands in the South Wetland Complex. Limited fill of adjacent wetlands will be required to hydrologically isolate the restored wetlands from existing non-tidal wetlands within the WSDOT parcel to the south and from Wetland D. Wetland fill will be offset by wetland and stream creation and tidal wetland restoration and rehabilitation in the South Wetland Complex.

A long, curving trestle-like bridge is proposed to cross over the Bigelow Creek stream outfall to maintain the trail through the area (Figure 8).

The Public Amenities Master Plan includes the construction of a wetland to the north of the WSDOT stormwater ponds and west of the Bigelow Creek and South Wetland Complex enhancements. The wetland will provide for treatment to surface waters composed of flood flows and base flows from Bigelow Creek, which has been impacted by pre-existing development in the Lowell neighborhood upstream from the Everett Riverfront District. The constructed wetland will be designed to provide water quality benefits to Bigelow Creek for flows between base flows and flood flows to approximately the 2-year event. Larger flows generated mostly from stormwater runoff into the stream would bypass the treatment portion of the constructed wetland. The wetland has been addressed under grants received from the Department of Ecology, and is designed to be constructed and operated independently from the South Wetland Complex habitat enhancements.

A fire and emergency access road to the Simpson Pad also runs through this area, and was addressed in the EIS. This access road will be included within a broad trail, routinely used as a pedestrian and bicycle path, but available for fire and emergency trucks if needed. This trail will require an asphalt span of at least 8 feet, 2-foot-wide gravel shoulders, and a reinforced grass grid shoulder at each side to make a total drivable span of 20 feet, plus an additional 1-foot flat area on each side.

## **1.9 LOWELL RIVERFRONT PARK IMPROVEMENTS**

Proposed improvements to Lowell Riverfront Park at the south end of the site include formalizing and surfacing the existing graveled parking area, a water quality treatment swale for stormwater runoff, connections to existing trails, and an interpretive center or a multi-purpose building. Portions of the riverbank will be stabilized to forestall erosion and better withstand foot traffic, and other areas will be graded and planted with native plants to bioengineer an erosion-resistant, naturalistic bank protected by a fence. Pedestrian access to the riverbank for fishing will be allowed at controlled locations. See Figure 11.

## **1.10 PROJECT PHASING**

The public amenities are expected to be constructed incrementally to coordinate with OliverMcMillan, LLC's development activity, and as funding allows. See pages 43-47 of the Public Amenities Master Plan for additional detail.

If funding is obtained, the initial phase of the public amenities design and construction is likely to include the Bigelow Creek restoration, including the creation and enhancement of additional tidally influenced wetlands within the South Wetland Complex. This work may occur in conjunction with the construction of the constructed wetland for Bigelow Creek. Early phase work would also entail additional wetland creation or buffer enhancement as mitigation efforts. The proposed realignment of the Riverfront Trail at the Bigelow Creek Outfall and the construction of the trestle bridge are integral project elements of the Bigelow Creek restoration.

However as separate funding sources are likely needed, these improvements may lag the stream restoration.

The Railroad Corridor Trail may be constructed as an early phase in order to coordinate with improvements to the Landfill site's leachate collection system, utilities and drainage improvements necessary to develop the Landfill site, the routing of piped stormwater collected off site, the removal of the Landfill site preload soils, and relocation of an existing PUD tower, all efforts that will require construction road access. The abandoned BNSF Railway track bed at the base of the landfill can provide a low-cost stable bed for the construction road. OliverMcMillan, LLC is required to construct a temporary gravel trail along the old rail bed, with the City constructing the final trail improvements. If the City pursues construction of the Railroad Corridor Trail as an early phase, OliverMcMillan, LLC would not be required to complete the temporary improvement.

The Railroad Corridor Trail work includes linkages of boardwalks and bridge segments to connect to the Simpson Pad and the north Simpson Pad trail, and links to OliverMcMillan, LLC's Central Gathering Place that may also be included in initial phases. Connections and linkages to other portions of the trail system and developments would occur as those elements are planned and constructed. These connections could be completed in the early stages during development of the primary trail system or could occur later as part of the development of subsequent phases of the project.

Most of the development for the 3-Acre Park at the north end of the site could be completed in the early stages, coordinated with adjacent road and utility construction.

Rerouting of Walton Creek from the new Habitat Pond, through Wetland C, to an outfall at the Snohomish River may also be included in the initial phases. Enhancements will include channel excavation, riverbank regrading at the outfall, installation of large woody debris, the creation of raised hummocks, and planting with native species. (Note that this work was addressed in Addendum No. 1 to the FEIS for the Everett Riverfront Redevelopment.)

Later phases of design and construction will likely include realignment and additional improvements to the Riverfront Trail, installation of multiple picnic sites, improvements to Lowell Riverfront Park, creation of raised planted hummocks within the restrictive covenant area of Wetland D, installation of an ADA-accessible Lowell Crossing over the railroad tracks, and the construction of an interpretive center or multi-purpose building at Lowell Riverfront Park.



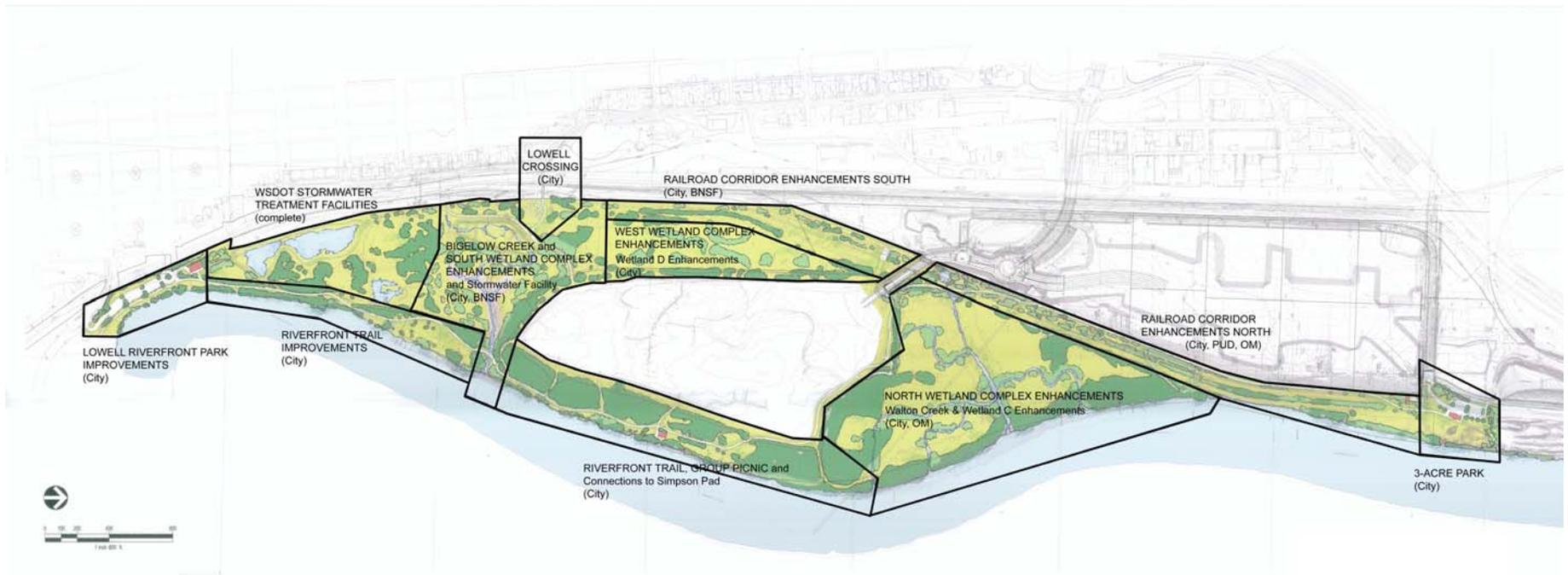


Figure 2  
PROJECT AREAS PLAN



Figure 3  
3-ACRE PARK

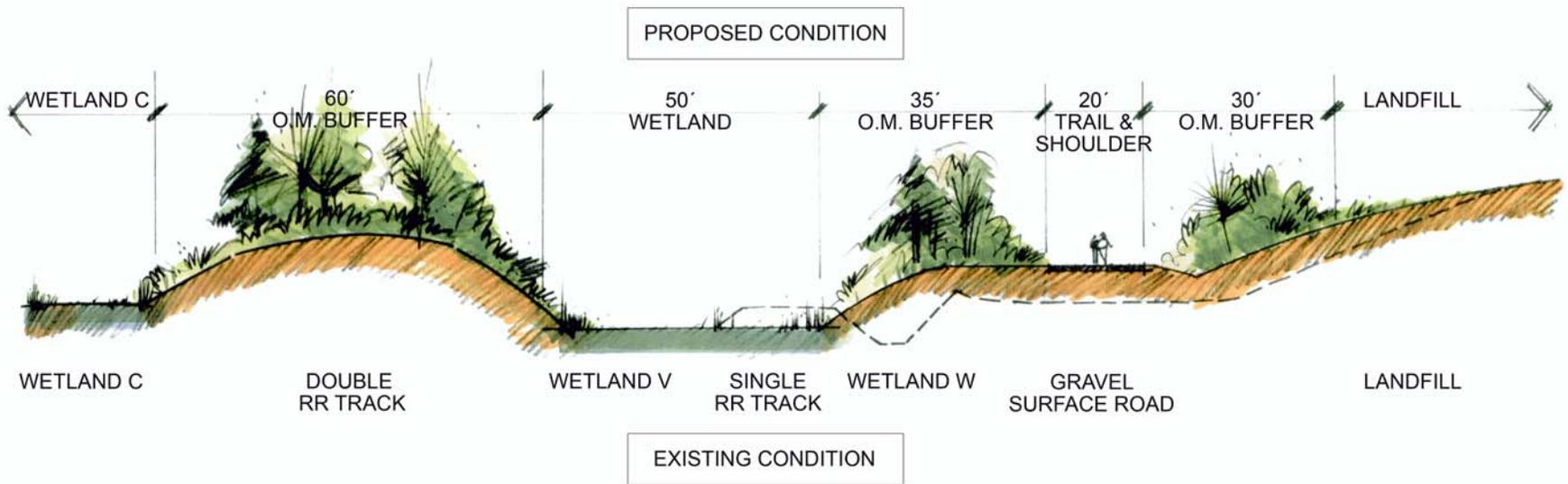


Figure 4  
RAILROAD CORRIDOR CROSS SECTION



TRAIL CONNECTIONS AT UPPER WETLAND "C"

Figure 5  
TRAIL CONNECTION AT UPPER  
WETLAND C



Figure 6  
 LOOP TRAIL INTO WETLAND C



WETLAND C

Figure 7  
NORTH WETLAND COMPLEX ENHANCEMENTS



Figure 8  
 RIVERFRONT TRAIL CROSSING OF BIGELOW CREEK



Figure 9  
 RIVERFRONT TRAIL, GROUP PICNIC, AND  
 CONNECTIONS TO SIMPSON PAD

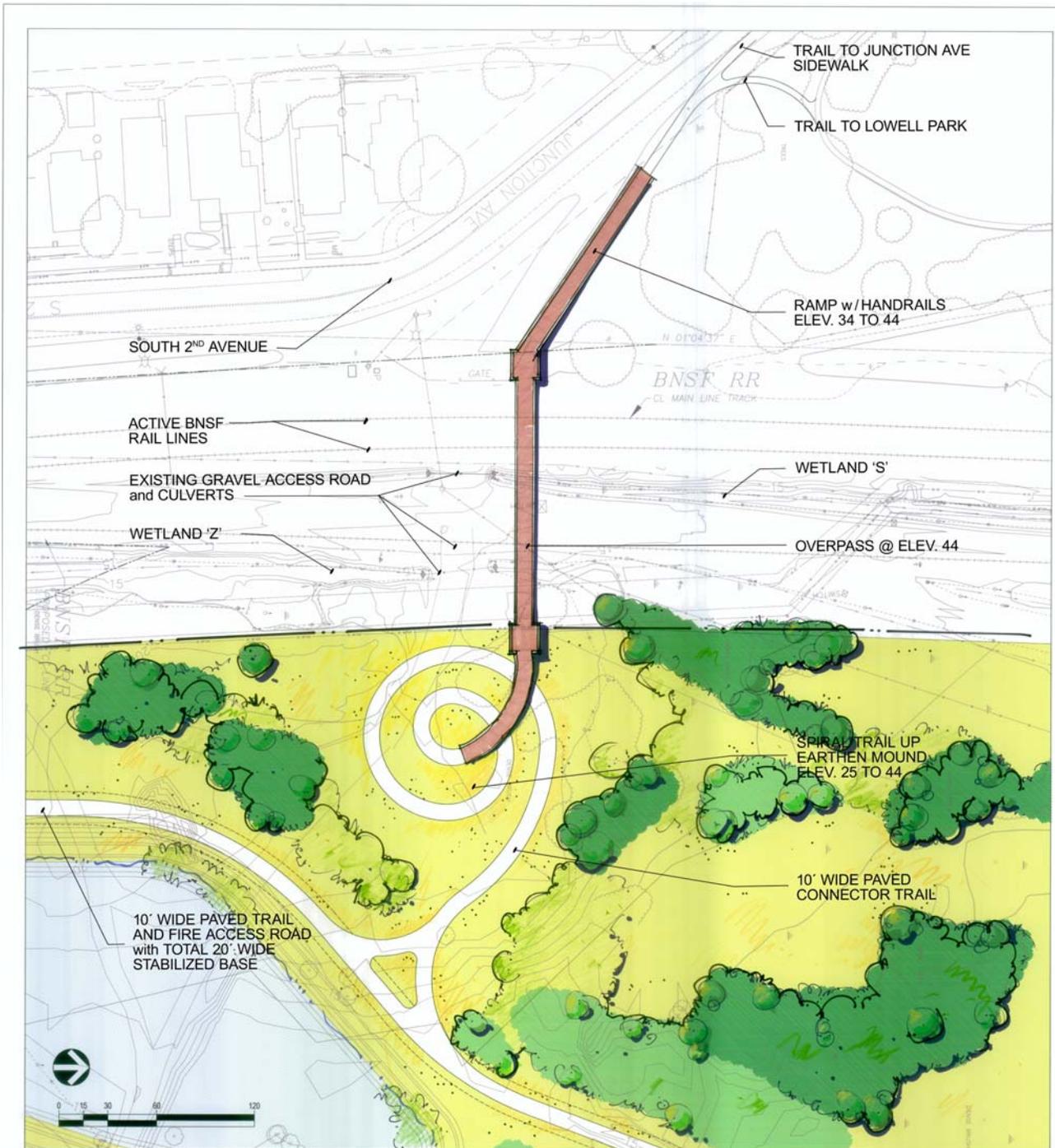


Figure 10  
LOWELL CROSSING



Figure 11  
LOWELL RIVERFRONT PARK

## **CHAPTER 2. PHASED REVIEW - PREVIOUS SEPA DETERMINATIONS RELATED TO THE SITE AND PROPOSAL**

### **2.1 EIS ANALYSIS**

Section 1.2 (pages 1-1, 2) of the DEIS for the Riverfront Redevelopment (City of Everett, 2007) and the Final Scoping Notice for the Everett Riverfront Redevelopment dated November 28, 2006 addressed prior planning efforts and plan level and project-specific State Environmental Policy Act (SEPA) environmental reviews that have been completed related to redevelopment of the Riverfront properties. Previous reviews ranged from analysis of plan level documents to specific development actions, such as placing fill on the site and constructing access to the site. An updated list of previous SEPA reviews completed related to the property is shown in Table 1.

The DEIS (City of Everett, 2007) stated that plans for many of the public amenities including trail extensions, park areas, wetland restoration and enhancements being undertaken by the City are still at a conceptual level and are described within the EIS generally unless otherwise noted. Additional environmental review to permit the amenities was to be completed when design details are more fully developed. The Riverfront Development Public Amenities Master Plan and this Addendum provide those details and related environmental analysis. This Addendum addresses both Plan level analysis for the Public Amenities Master Plan, and permit level SEPA analysis for the projects.

Section 2.2 (pages 2-20, 25) of the DEIS (City of Everett, 2007) identified that the evaluation of City-provided public amenities was based on a 2005 planning study: *Snohomish Riverfront Properties at Bigelow Creek: Conceptual Enhancement Program* (The Watershed Company, 2005) and was included as Exhibit I to the Property Disposition Agreement (PDA). The 2005 conceptual enhancement program described a variety of potential enhancement and restoration actions, such as restoring floodplain and tidal connections, reconnection of wetland complexes, relocating and reconstructing the Bigelow Creek channel, improving edge habitat, restoring and enhancing habitat through revegetation, and the construction of a network of trails, wetland viewing areas, and interpretive facilities.

The Riverfront Development Public Amenities Master Plan has further developed the concepts presented in the 2005 program document. The initial concepts were updated, modified, or abandoned through the master plan development process, which included additional site analysis, public involvement, and coordination with OliverMcMillan, LLC, BNSF Railway, the City parks commission, and state and federal regulatory agency staff. The Riverfront Development Public Amenities Master Plan proposes revisions and deviations from the 2005 conceptual enhancement plan where the original 2005 plan elements were determined to be infeasible, not practicable, or where alternative approaches reduced impacts or increased habitat functions.

**Table 1: Previous Environmental Determinations**

City File Number, SEPA Determination	Action
SMA78-008, EIS78-005	Simpson Paper Co. Lowell Industrial Site Fill. The proposal was to dike and fill approximately 100 acres at the former mill site to prepare the area for industrial development.
SMA86-001, Adoption of EIS78-005 with Addendum	Simpson Paper Co. Completion of Lowell Fill. The proposal was to place approximately 450,000 cubic yards of fill on 70.2 acres, retaining 47.1 acres of wetland.
SMA86-001, SEPA89-115 DNS	Simpson Paper Co. Fill on South End of Site. The proposal was placement of 20,000 cubic yards of fill on the south end of the Simpson site.
SMA86-001 Revision, SEPA 91-066 MDNS	Simpson Paper Co. Fill on South End of Simpson Site.
SMA93-002, SEPA93-009, MDNS and Addendum	City of Everett Bicycle/Pedestrian Trail. The project included construction of a trail from Rotary Park along the Snohomish River dike approximately ¾ mile to the north. The trail then crosses the north end of the sand fill and currently ends at the BNSF railroad tracks. The proposal included continuing the trail north along the west side of the landfill property to 36 <sup>th</sup> St., where it became a combination bike route and bike lane for approximately one mile.
SMA95-005, SEPA95-051 MDNS	City of Everett Simpson Fill. The proposal was to fill the Simpson development pad with approximately 300,000 cubic yards of fill.
	Interim Cleanup Actions on Everett Landfill/Tire Fire Site. Ecology issued DNS in August 1995 for grading landfill surface and installing leachate collection system. Ecology issued DNS in May 1997 for a realigned leachate collection system, cover of the fire ash area, and regrading of the west ditch.
SEPA00-056 Final DNS and Addendum	Consent Decree Cleanup Action Plan for the Everett Landfill/Tire Fire Site. Ecology issued final Consent Decree and Cleanup Action Plan on April 2, 2001.
SEPA99-049, Appeal99-0070, Adoption of February 2004 NEPA Environmental Assessment (EA)	41 <sup>st</sup> Street Overcrossing Freight Mobility and Railroad Track Removal and Upgrade Project. The proposal was construction of a new roadway crossing over the BNSF mainline and Smith Avenue at 41 <sup>st</sup> St.  EA was prepared by the City of Everett, the US Dept of Transportation, Federal Highway Administration and the WA State Dept of Transportation.
COMP 01-003, SEPA00-061 Final DNS and Addendum	Shoreline Master Program Update. This addressed the comprehensive update of the City's Shoreline Master Program. Ecology approved the update in March 2002. The update includes vision statements and associated designations for the riverfront areas within shoreline jurisdiction, as well as the Landfill property. The SMP also includes policies and regulations for development in shoreline jurisdiction.
COMP02-007, REZ02-007, SEPA02-063 Revised DNS	Comprehensive Plan and Zoning Changes to Implement the SMP. City Council approved Comprehensive Plan and Zoning changes in July 2003. Amendments included new Aquatic comprehensive plan designation and zone, amending Comprehensive Plan designation for riverfront areas south of Highway 2 to 4.5 Waterfront Commercial, and designating the northern Simpson Category 1 wetland Aquatic.
(COMP03-001, SEPA03-006 Revised Final DNS	Shoreline Public Access Plan. The plan focused on a long-term comprehensive strategy to establish a continuous system of trails, parks and attractions around the entire Everett peninsula, with connections inward to city neighborhoods and outward to regional trails. It was approved by City Council in May, 2003.

City File Number, SEPA Determination	Action
SMA04-009, SPU04-011	WSDOT Stormwater Facility. Washington State Department of Transportation (WSDOT) issued a NEPA Environmental Assessment and Finding of No Significant Impact, and SEPA Adoption of those documents. The project was construction of a stormwater facility for drainage from the I-5 HOV lanes, wetland restoration, and trail construction.
COMP 04-001, EIS04-001 Draft and Final SEIS	10-Year Update to Growth Management Comprehensive Plan. The update was approved by City Council on July 20, 2005.
COMP05-001, SEPA05-012 DNS	SMP Amendments to Implement Appeal Settlement Agreement. The amendments were approved by Ecology in November 2005. The proposal included adding a Shoreline Restoration Element to the SMP, modifying text for the Urban Conservancy-Recreation designation, modifying buffer regulations, modifying standards for stormwater facilities in buffers, modifying compensatory mitigation requirements, and adopting the SMP to meet GMA critical area requirements in shoreline jurisdiction.
COMP03-003, DNS	Critical Area Ordinance Update. The update was approved by City Council in April 2006. It applies to critical areas outside shoreline jurisdiction.
SMA 05-014 and SEPA05-067, MDNS	41 <sup>st</sup> Street Extension to Simpson Pad. The project included construction of a two lane roadway with a pedestrian/bicycle lane from the east end of 41 <sup>st</sup> St. to the Simpson pad site. The extension included a bridge crossing over two wetlands and railroad tracks.
SMA05-015, SEPA04-067, MDNS and Addendum	Eclipse Mill Road Properties Fill. The project included placement of approximately 125,000 cubic yards of fill west of Eclipse Mill Road and stockpiling of approximately 250,000 cubic yards of fill between the Snohomish River and Eclipse Mill Road and north of 36 <sup>th</sup> St.
SEPA05-032, DNS	Floodplain Management Program Amendments. Amendments to floodplain regulations and FEMA floodplain boundaries to reflect revised FEMA maps.
REZ06-003, EIS06-002	Rezone of Everett Riverfront Redevelopment site to Planned Development Overlay Zone with a Master Development Plan. (This document is Addendum No. 2 to the EIS.)
EIS06-002 Addendum No. 1	Addressed changes to building heights, revised proposal for Wetland C, school impact mitigation, revisions to design guidelines.

## **CHAPTER 3. APPROVALS NEEDED FOR THE PROPOSED DEVELOPMENT AND PUBLIC INVOLVEMENT**

City Council will hold a public hearing and make a decision on adoption of the Riverfront Development Public Amenities Master Plan. Prior to that decision, the Parks Board of Commissioners will make a recommendation to City Council. Permits for construction will be required from a variety of local, state, and federal agencies, as shown in Table 2.

**Table 2: Riverfront Development Public Amenities Master Plan Potential Permits/Approvals**

Potential Permit/ Approval	Lead Agency	Trigger
FEDERAL – CORPS OF ENGINEERS (USACE)		
Section 404 of the Clean Water Act Individual Permit	USACE	<p>Placing a structure, excavating, or discharging material in ALL U.S. waters, including wetlands, streams, and the river. An individual permit is triggered, in general, when fill areas are <u>greater</u> than ½ acre. However, some work that is considered to be entirely mitigation does not have a maximum fill threshold.</p> <p><b>The following Public Amenities Master Plan work could trigger this permit:</b></p> <ul style="list-style-type: none"> <li>• <b>Bigelow Creek/South Wetland Complex</b></li> <li>• <b>Walton Creek/North Wetland Complex</b></li> <li>• <b>RR Corridor Trails and Wetland Mitigation</b></li> <li>• <b>Riverbank Enhancements</b></li> <li>• <b>3-Acre Park Construction</b></li> <li>• <b>Trail Realignments to avoid bank instability areas that impact wetlands or drainages.</b></li> <li>• <b>West Wetland Complex Enhancements.</b></li> </ul>
Section 10 of the Rivers & Harbors Act	USACE	<p>Placement of structures and discharging material in NAVIGABLE U.S. waters, including wetlands; i.e. boat docks, floats, buoys, etc.</p> <p><b>The following Public Amenities Master Plan work could trigger this permit:</b></p> <ul style="list-style-type: none"> <li>• <b>Float and piles at the 3-Acre Park</b></li> <li>• <b>Riverbank Enhancements</b></li> </ul>
FEDERAL – U.S. FISH & WILDLIFE SERVICE (USFWS) & NOAA FISHERIES SERVICE (NOAA FISHERIES)		
Section 7 of the Endangered Species Act Review	USFWS & NOAA Fisheries	<p>Federal Nexus** and listed species. Application for a federal permit when a plant or animal species may be affected that are suspected to be, or actually are of threatened or endangered status.</p> <p><b>Triggered by any federal permit or project elements that receive federal funding (see above)</b></p>
STATE – WASHINGTON STATE DEPT. OF FISH & WILDLIFE (WDFW)		
Hydraulic Permit Approval (HPA)	WDFW	<p>Work that uses, diverts, obstructs, or changes the natural flow or bed of state waters.</p> <p>Activities include: bridges, piers, &amp; docks; pile driving; channel change/realignment; pipeline crossing; culvert installation; dredging; gravel removal; pond construction; placement of outfall structures; log, log jam, or debris removal; installation/maintenance of (w/equipment) water diversions.</p> <p><b>The following Public Amenities Master Plan work could trigger this permit:</b></p> <ul style="list-style-type: none"> <li>• <b>Bigelow Creek/South Wetland Complex</b></li> <li>• <b>Walton Creek/North Wetland Complex</b></li> <li>• <b>RR Corridor Trails and Wetland Mitigation</b></li> <li>• <b>Riverbank Enhancements</b></li> <li>• <b>Float and piles at the 3-Acre Park</b></li> <li>• <b>Riverbank Enhancements</b></li> <li>• <b>Trail Realignments that bridge or cross drainages</b></li> </ul>

Potential Permit/ Approval	Lead Agency	Trigger
STATE – WASHINGTON STATE DEPT. OF NATURAL RESOURCES (DNR)		
Aquatic Lands Lease	DNR	Temporary, long-term, or permanent use or encumbrance of state-owned aquatic land. <b>Triggered by:</b> <ul style="list-style-type: none"> <li>• <b>Float and piles at the 3-Acre Park</b></li> <li>• <b>Wetland C new channel mouths and bank restoration</b></li> <li>• <b>Bigelow Creek Outlet</b></li> </ul>
WASHINGTON STATE PARKS AND RECREATION		
Drainage or construction easements		Temporary, long-term, or permanent use or encumbrance of upland and tidelands owned by WA State Parks and Recreation. <b>Triggered by:</b> <ul style="list-style-type: none"> <li>• <b>Float and piles at the 3-Acre Park</b></li> <li>• <b>Wetland C new channel mouths and bank restoration</b></li> <li>• <b>Bigelow Creek Outlet</b></li> </ul>
STATE – WASHINGTON STATE DEPT. OF ECOLOGY (ECOLOGY)		
Water Quality Certification Section 401 of the Clean Water Act	Ecology	Applying for a federal license or permit to conduct any activity that might result in a discharge of dredge or fill material into water or wetlands, or excavation in water or wetlands. Two types of projects: <ul style="list-style-type: none"> <li>• Projects requiring a Federal permit to allow discharges of dredged or fill materials to ALL U.S. waters</li> <li>• Projects (dams, power plants, &amp; other facilities) requiring Federal Energy Regulatory Commission (FERC) licenses</li> </ul> <b>Triggered by Section 404 permit (see above)</b>
Coastal Zone Management Act Consistency Determination (CZM)	Ecology	A CZM is triggered by one of three activities: <ul style="list-style-type: none"> <li>• Activities undertaken by a federal agency</li> <li>• Activities requiring federal approval</li> <li>• Activities that use federal funding</li> </ul> AND is either in the coastal zone or coastal resources are impacted. <b>Triggered by any federal permit (see above)</b>
National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges associated with construction activities	Ecology	Stormwater discharges from construction sites of one or more acres <b>Triggered by construction activities that require clearing and grading. The following Public Amenities Master Plan work could trigger this permit:</b> <ul style="list-style-type: none"> <li>• <b>Bigelow Creek/South Wetland Complex</b></li> <li>• <b>Walton Creek/North Wetland Complex</b></li> <li>• <b>RR Corridor Trails and Wetland Mitigation</b></li> <li>• <b>Riverbank Enhancements</b></li> <li>• <b>3-Acre Park Construction</b></li> <li>• <b>Trail Realignments to avoid bank instability areas that impact wetlands or drainages</b></li> <li>• <b>West Wetland Complex Enhancements</b></li> </ul>

Potential Permit/ Approval	Lead Agency	Trigger
Confirmation that fill is consistent with existing agreements for restrictive covenant.		<p><b>Triggered by fill in Wetland D for</b></p> <ul style="list-style-type: none"> <li>• <b>Trail connection</b></li> <li>• <b>Wetland enhancement</b></li> </ul>
WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (DAHP) AND WASHINGTON STATE HISTORIC PRESERVATION OFFICE (SHPO)		
Archaeological Approval; Section 106 of the National Historic Preservation Act	DAHP	<p>Ensure that proposed activities do not affect any development, known historic or culturally significant sites. Local cultural and historic evaluation also required.</p> <p><b>Triggered by any federal permit (see above)</b></p>
Executive Order 05-05	DAHP	<p>State Funding for projects that lead to construction. Ensure that proposed activities do not affect any development, known historic or culturally significant sites. Local cultural and historic evaluation also required.</p> <p><b>Triggered by any state funding for projects that lead to construction</b></p>
LOCAL – CITY OF EVERETT		
SEPA EIS or Checklist	SEPA lead agency City of Everett	<p>State or local “actions” such as issuing permits, or adopting plans. SEPA requires all governmental agencies to consider the environmental impacts of a proposal before making decisions.</p> <p><b>Triggered by any project action</b></p>
Shoreline Substantial Development /Conditional Use Permit	City of Everett	<p>Interfering with normal public use of water/shorelines of the state, or developing or conducting an activity valued at ≥ \$5,000 on the water or shoreline area.</p> <p><b>Triggered by any project action as all proposed work elements are within the shoreline zone</b></p>
Floodplain Development Permit	City of Everett	<p>Fill or development with the 100-year floodplain or floodway. Some projects, such as restoration, may be exempt or qualify for expedited reviews.</p> <p><b>Triggered by any project action as all proposed work elements are within the floodplain</b></p>
Compliance with Critical Areas Standards	City of Everett	<p>Project proposed near or within critical areas or their buffer.</p> <p><b>Triggered by any project action as all proposed work elements are within designated critical areas or their buffers</b></p> <p><b>All Public Amenities Master Plan elements are anticipated to trigger this review</b></p>
Construction Permits: Grading, Building, Foundation, Electrical, Etc.	City of Everett	<p>Construction activities.</p> <p><b>Triggered by any project action except landscape plantings if done within limits specified in individual permit conditions. Construction of the new restroom facilities would trigger more construction permits than other elements</b></p>
OTHER – BNSF		
Permissions, which could include Drainage or Construction Easement, Design Review	BNSF	<p>Construction within BNSF ROW or easements</p> <p><b>Triggered by</b></p> <ul style="list-style-type: none"> <li>• <b>Relocation of Bigelow Creek</b></li> <li>• <b>Construction of the Lowell Crossing</b></li> </ul>

## CHAPTER 4. LAND AND SHORELINE USE / AESTHETICS

### 4.1 CONSISTENCY WITH THE COMPREHENSIVE PLAN AND SHORELINE MASTER PROGRAM

#### 4.1.1 Summary of Previous Documentation/EIS Analysis

Sections 5.1.3 to 5.1.9 of the DEIS (pages 5-6 to 5-17) (City of Everett, 2007) address Comprehensive Plan and Shoreline Master Program (SMP) designations and vision statements for different portions of the site. The proposed OliverMcMillan, LLC development and the conceptual public amenities were consistent with City land use plans and regulations. SMP designations on the site include Urban Conservancy, Urban Conservancy Recreation, Aquatic, Aquatic Conservancy, and Urban Multi-Use (Figure 12).

As stated in the DEIS, the Urban Conservancy SMP designation applies to Bigelow Creek and the Category 1 wetlands and their buffers, along with the riparian corridor along the eastern edge of the property. The SMP designations are also incorporated into the Shoreline Land Use Element of the Comprehensive Plan. The description for the Urban Conservancy designation on the Simpson Pad site in Section 4.10 of the SMP states:

**Bigelow Creek and the Category 1 wetlands and their buffers** required by the SMP, along with the **riparian corridor** along the entire east edge of the property required by the SMP. The waterward boundary is the ordinary high water mark of the Snohomish River. The western boundary is the line that corresponds to the existing west edge of the Burlington Northern right-of-way and any wetlands in the right-of-way that extend beyond the west edge of the right-of-way or 200 feet from the ordinary high water mark, whichever is greater. **Interior boundaries are the edge of the buffers adjacent to Bigelow Creek** and the Category 1 wetlands required by the SMP. *(bolding added)*

The area to the west of the Urban Conservancy area is designated Urban Multi-Use in the SMP. The description of the Urban Multi-Use designation in the Tire Fire/Landfill site area in Section 4.7 of the SMP states:

That area extending from the centerline of 36<sup>th</sup> Street to a buffer a minimum of 50 feet from Bigelow Creek and associated wetlands. For the northern 400 feet, the eastern boundary is the ordinary high water mark of the Snohomish River. For the remaining area, the eastern boundary is the edge of the buffer required by the SMP contiguous to the edge of Bigelow Creek and associated wetlands (edge of Urban Conservancy environment). The western boundary is 200 feet from the ordinary high water mark.

## **4.1.2 New Information/Impacts**

**4.1.2.1 Bigelow Creek Relocation.** The proposal includes returning Bigelow Creek to an alignment consistent with pre-development drainage patterns. Baseflow and storm flows in the stream will be diverted from the existing system of ditches abutting the BNSF Railway mainline and will discharge to a newly constructed channel that will bisect the South Wetland Complex. Following relocation of the stream, the boundary descriptions for the Urban Conservancy designation in that area north and west of Wetland C will need to be revised through a Shoreline Master Program amendment to eliminate references to the existing alignment of Bigelow Creek and its buffer.

The relocated Bigelow Creek will be within an area designated Urban Conservancy – Recreation (SMP Section 4.9 South Simpson Site) and Urban Conservancy (SMP Section 4.10 Simpson Site). The proposed relocation and enhancements in that area can be completed without a SMP amendment, since the City allows mitigation and restoration actions in all SMP designations.

**4.1.2.2 Wetland Category and SMP Designations.** As stated above, the Category I wetlands on the site and their buffers are designated Urban Conservancy in the SMP. This includes Wetlands C and D. Wetland N is rated as a Category II wetland under the SMP rating system. The proposal includes wetland enhancement in Wetland D (a Category I wetland), wetland enhancement related to the relocation of Bigelow Creek (a Category I stream), and wetland construction within the South Wetland Complex including work within Wetlands N and D and their buffers. The proposed changes to Wetland C and Bigelow Creek would not change their ratings under the SMP rating system. After construction, a portion of Wetlands N and D will be connected and the portion of Wetland D within the West Wetland Complex containing the restrictive covenant may be hydrologically isolated from the new tidally influenced portions of the South Wetland Complex. The overall wetland ratings of individual wetlands in the South Wetland Complex and the West Wetland Complex may change as a result. The SMP designation boundaries and/or maps may need to be modified to reflect the changes in classification within the South and West Wetland Complexes.

**4.1.2.3 Proposed Public Access Uses in Urban Conservancy Area.** The Public Amenities Master Plan includes a group picnic shelter and satellite picnic tables along the trails in the riparian area east of the Simpson Pad in an area designated Urban Conservancy in the SMP. Parking for the group picnic shelter would be provided as part of the Simpson Pad development outside of shoreline jurisdiction. Maintenance, ADA, and emergency access would be required to the shelter in a joint-use trail in the area designated Urban Conservancy.

The SMP currently limits recreation improvements within the Urban Conservancy designation to minor public access improvements, such as trails, and the proposed picnic shelter and potential restrooms are not permitted uses. The City recently submitted a proposed SMP amendment to the Department of Ecology for the Marshland Subarea Plan. If the SMP amendments for the Marshland Subarea Plan are approved, restrooms and picnic shelters would also be permitted in Urban Conservancy designated areas, and the Public Amenities Master Plan would be consistent with SMP permitted uses. If the Department of Ecology does not approve the Marshland

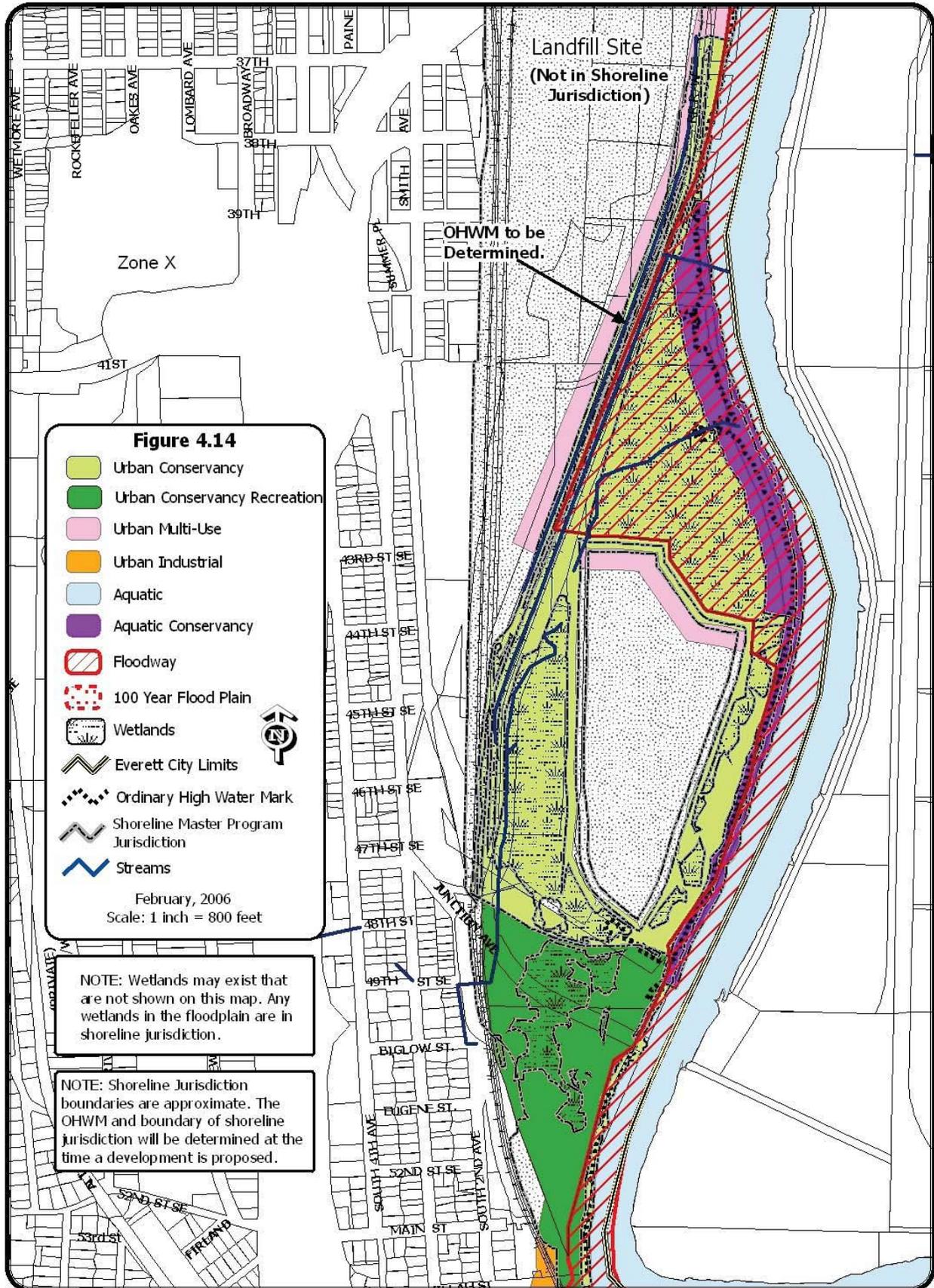


Figure 12  
SHORELINE MASTER PROGRAM DESIGNATIONS

Subarea Plan, the SMP designation boundaries and maps may need to be modified in this area in order to permit the proposed picnic shelter.

OliverMcMillan, LLC's proposal included construction of a boat basin, dock and associated recreation facilities north of the Category 1 wetlands within an Urban Conservancy area related to Bigelow Creek (Wetland W) and its buffer (FEIS Figures 4.5-5, 4.5-7, City of Everett, 2008a). A mitigation plan for associated impacts to wetlands and shoreline was included in the EIS (see FEIS Revised Section 4.5.4 on pages 24-28). The proposed boat basin, dock, and recreational facilities are not a permitted use in the Urban Conservancy designation. An SMP designation amendment would be required in order to permit the dock. This amendment would occur after Bigelow Creek is relocated (see Section 4.1.2.1 above).

#### **4.1.3 Mitigation Measures**

1. Following the relocation of Bigelow Creek, the City will apply for an SMP amendment to designate the area north and west of Wetland C as Urban Multi-Use consistent with the adjacent designations to the north and west. The amendment would need to be completed prior to construction of OliverMcMillan, LLC's proposed boat dock and boathouse improvements in the area.
2. If the category for Wetlands D or N changes following construction activity, the SMP designations/maps would need to be modified through an SMP amendment.
3. Construction of the proposed picnic shelter in the riparian area east of the Simpson Pad cannot occur until the SMP amendments proposed in the Marshland Subarea Plan are approved.

#### **4.1.4 Significant Unavoidable Adverse Impacts**

None anticipated.

### **4.2 CONSISTENCY WITH THE SHORELINE PUBLIC ACCESS PLAN**

#### **4.2.1 EIS Analysis**

Section 5.3 of the DEIS (pages 5-45 to 5-59, City of Everett, 2007) addressed Parks and Recreation, Open Space and Public Access. The DEIS describes existing park and recreation facilities in the vicinity; and summarizes existing plans and regulations (Comprehensive Plan Parks and Recreation Element, Shoreline Public Access Plan (adopted as a functional plan/sub-element of the Comprehensive Plan), and applicable land use regulations). The DEIS also identifies impacts related to construction of recreation and public access improvements (such as temporary trail closures); operational impacts (such as increased demand for parks and recreation related to occupants of the OliverMcMillan, LLC development); proposed mitigation measures; and additional potential mitigation measures.

The proposed mitigation measures included wetland enhancements; new shoreline access points; expanded pedestrian/bicycle trails; interpretive viewpoints; new recreation, open space and park areas; multi-use public spaces for outdoor gathering; and a new multi-purpose boat dock.

#### 4.2.2 Existing Conditions/New Information

The Riverfront Development Public Amenities Master Plan and this Addendum add more detailed information related to public access improvements and recreation facilities to be provided by the City.

In combination, the Public Amenities Master Plan and the OliverMcMillan, LLC development include most of the trails and connections addressed in the Shoreline Public Access Plan. The Public Amenities Master Plan adds new information about a few of the improvements, which is described below. The improvements are consistent with the Shoreline Public Access Plan.

- **A trail from Pacific Avenue to the current terminus of the Everett Riverfront Trail.** OliverMcMillan, LLC is responsible for extending a temporary gravel trail from the Simpson Pad to 36<sup>th</sup> Street and for replacing the Riverfront Trail segment on the north side of the Simpson Pad. The City is responsible for constructing a permanent trail from the Simpson Pad to 36<sup>th</sup> Street and for the portion through the 3-Acre Park. Oliver McMillan, LLC is responsible for the portion between the 3-Acre Park and Pacific Avenue.

The Public Amenities Master Plan includes more detail for the trails through the 3-Acre Park and from the Simpson Pad to 36<sup>th</sup> Street, including a trail hierarchy plan that describes associated trail width and paving/boardwalk materials, and multiple trails through the 3-Acre Park.

The Shoreline Public Access Plan states that the wetland just north of the old Simpson Mill site (Wetland C) is an ecologically important resource, and so the trail will follow its western margin. It also states that limited nature trails and viewing areas may be added, subject to environmental conditions. The Public Amenities Master Plan includes spur loop trails into Wetland C, and the analysis of the impacts of and mitigation for construction of the trail is included in Chapter 12 of this Addendum.

- **Existing Lowell Riverfront Trail.** The Shoreline Public Access Plan recommends monitoring the undercutting of the river and potential shoreline stabilization at the bend in the Snohomish River near Lenora to protect the existing Lowell Riverfront Trail. This shoreline stabilization is included in the Public Amenities Master Plan, and is further addressed in Chapter 10 of this Addendum.
- **Connections to the Lowell Community.** The Shoreline Public Access Plan calls for maintaining and improving the railroad crossing at Junction Avenue, connecting Lowell and the site. The Public Amenities Master Plan provides a conceptual design for the crossing – a mound with a spiral path leading to an above-grade overpass of the railroad tracks. An alternative is to construct a spiral ramp, which occupies a small footprint, but has potentially higher construction costs. The west end configuration would be a ramp

extending parallel to the current road alignment, ending at the sidewalk on the north side of South 2<sup>nd</sup> Avenue, with a secondary path curving north into Lowell Neighborhood Park.

- **Lenora Street Overcrossing.** At the south end of the site, Lowell Riverfront Park has a street connection to the Lowell neighborhood via an at-grade BNSF Railway mainline crossing. The Shoreline Public Access Plan included a pedestrian overpass at the BNSF Railway crossing of Lenora Street if the Lowell neighborhood bypass is built. The bypass through the Simpson Pad site is no longer proposed, but the Lenora Street/BNSF Railway rail line overcrossing is included in the City's Transportation Improvement Plan (TIP) as a minor arterial improvement. The overcrossing is not currently proposed as part of the OliverMcMillan, LLC or City of Everett Riverfront Development Public Amenities Master Plan. The Public Amenities Master Plan recommends that future street improvements such as sidewalks and bike lanes be added to Lenora Street and Lowell-Snohomish River Road to improve multi-modal access to the south end of the site.

### **4.2.3 Mitigation Measures**

Implementation of the Public Amenities Master Plan complies with the Shoreline Public Access Plan. No additional mitigation has been identified.

### **4.2.4 Significant Unavoidable Adverse Impacts**

None anticipated.

## **4.3 LIGHT AND GLARE**

### **4.3.1 EIS Analysis**

DEIS Section 5.2 (pages 5-17 through 5-54, City of Everett, 2007) addressed existing visual quality; light and glare; potential impacts from construction; and potential mitigation measures. Currently there are minimal on-site sources of light and glare. Off-site lighting surrounding the area dwarfs what is currently on the site. North of 41<sup>st</sup> Street primary light sources are street lights, security lighting on commercial and industrial buildings, lighting associated with Everett Memorial Stadium, and traffic on I-5 and surrounding streets. South of 41<sup>st</sup> Street, primary light sources are Lowell neighborhood, areas east of I-5 along View Drive, and traffic on the Lowell-Snohomish River Road.

The DEIS stated the addition of development on the site will result in unavoidable increases in light and glare; however, the impacts can be controlled to have minimal cumulative impact. Mitigation measures incorporated into the proposal included a unified lighting plan; use of downcast and shielded lighting, including full cut-off light fixtures in the southern part of the site; limiting the height of lighting in parking lots and streets; using non-reflective materials for roofs and façade materials, and screening vehicle lights by parking areas where feasible.

### 4.3.2 Impacts

The Public Amenities Master Plan does not address potential light fixtures or light sources. It is not anticipated that lighting will be proposed along the majority of the trail system. Lighting fixtures are most likely to be proposed in parking areas at the Lowell Riverfront Park at the south end of the site and the 3-Acre Park to the north, at any buildings in those parks, and at the picnic shelter that is accessed from the Simpson Pad. If an interpretive center or a multi-purpose building is constructed at Lowell Riverfront Park, evening uses are more likely to result in increased on-site lighting.

### 4.3.3 Mitigation

1. The DEIS identified the following mitigation measures for lighting that are also applicable to the City's public amenities:
  - Landscape will provide screening at parking areas to minimize vehicle headlight impacts.
  - Downcast lighting and shielded lighting will be utilized to minimize light spill.
  - Heights of lighting in parking lots and streets will be limited.
  - Building design will consider reflective materials and their impact to neighboring communities.
  - South of 41<sup>st</sup> Street, buildings 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.
  - South of 41<sup>st</sup> Street, full cut-off lighting fixtures will be used to contain 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 also reduce glare by limiting light intensity from the lamp in the region of 80 degrees to 90 degrees.
2. On-site lighting and mitigation must be addressed in future Shoreline Permits as designs are developed. The Shoreline Master Program includes the following regulations:
  - Section 32, Regulation 1 – All exterior lighting, including lighting of signs, shall be directed downward onto the site and away from other shoreline properties or nearby neighborhoods.
  - Section 3.9 Regulation 28 – Lighting shall be directed downward onto the site and away from environmentally sensitive areas and their buffers.

Residents concerned about potential lighting impacts could visit Lions Park (75<sup>th</sup> and Cascade Drive) to view an example of lighting that would comply with the mitigation measures identified above. The City of Everett Parks and Recreation Department recently completed improvements to the park that included installation of two styles of lighting. The first was to provide light along the sidewalks but act only as wayfinding points. The light fixtures were designed to minimize light pollution. The lights were mounted above ground at a height of 20 feet and protrude away from the pole 34 inches. They provide an even light spread (no hot spots) of 30 feet by 40 feet with lighting extending out a total distance of 35 feet away from the pole and 80 feet parallel to the pole. No light is emitted behind the light pole or above the light fixture. This

was done by using 16 light emitting diode (LED) modules which is the equivalent of 60 watts. The lights have a color range of 6000 Kelvin. The result is that the lighting is subtle and soft, and is hardly noticed while driving by the area at night. The second style of light was to improve lighting at the stairs. These lights use LEDs rated at 3 watts each, and were placed about 6 inches above each step into the stair curbing.

#### **4.3.4 Significant Unavoidable Adverse Impacts**

None anticipated.

# **CHAPTER 5. PARKS AND RECREATION FACILITIES, INCLUDING PUBLIC ACCESS**

## **5.1 SUMMARY OF PREVIOUS DOCUMENTATION/EIS ANALYSIS**

Section 5.3 of the Riverfront Redevelopment DEIS (pages 5-54 to 5-59, City of Everett, 2007) addressed Parks and Recreation, Open Space, and Public Access. It described 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 OliverMcMillan, LLC and City public amenities address those requirements.

## **5.2 IMPACTS/NEW INFORMATION**

The Public Amenities Master Plan is consistent with the analysis in Section 5.3 of the DEIS, and provides significant additional design detail for the proposed improvements. The Public Amenities Master Plan provides significant on-site facilities that are coordinated to provide connections with OliverMcMillan, LLC's proposed open spaces, as well as off-site local and regional facilities. Public facilities and open spaces to be provided, including proposed bicycle and pedestrian trails and linkages to existing residential areas implement the Shoreline Public Access Plan. See Section 4.2.2 of this Addendum for a discussion of the trails and connections proposed on the site.

Improvements to be provided in the new 3-Acre Park include direct shoreline access at a float for watercraft, with an associated viewpoint/overlook pavilion. The riverbank will be stabilized. Native buffer vegetation and trails will be provided along the shoreline. A new parking lot, restrooms, large level open lawn, and unstructured play area will be provided. Trails will connect uses in the park and to off-site trails. The large lawn area is designed to accommodate small festivals, farmer's markets, and informal play or gatherings.

Improvements to Lowell Riverfront Park at the south end of the site will include formalizing and paving the parking area, constructing a water quality treatment swale to address site runoff, stabilizing portions of the riverbank, and installing additional plantings of native species. A proposed structure could be an interpretive center or a multi-purpose building that can function as a classroom, meeting space, group picnic facility or other amenity. Portions of the secondary fire access road to the Simpson Pad will also function as part of the trail system. The road begins at the north end of the Lowell Riverfront Park and transitions to BNFS ROW before re-entering the site north of the WSDOT ponds, where it will connect to the trails within the SWDOT parcels. The portion of the fire access road within the BNSF ROW will not likely be part of the public trail system.

These improvements, along with the trails and picnic facilities throughout the site, provide significant public amenities to serve Everett's growing population.

Portions of Lowell Riverfront Park and the existing trail system, including unimproved trails and informal access are currently heavily used by the public. The Public Amenities Master Plan will change, control or limit traditional access points to the site and may actually reduce the public

use of some portions of the site, particularly as a result of the removal of some of the access roads and informal access points within the South Wetland Complex.

During construction of the public amenities and habitat enhancements, construction activities and equipment operation will create short-term noise, dust and vibration impacts to the existing park and public access improvements on or adjacent to the site. There will also be disruptions to use of the existing Riverfront Trail and Lowell Riverfront Park, potentially for several months at a time.

### **5.3 MITIGATION MEASURES**

During construction, when temporary closures or other impacts to existing public access and trails occur, public notice will be provided through measures such as on-site signage, news releases, and information on the City's web site. The types of notice provided will depend upon the physical extent of and length of time of public access disruption.

### **5.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

None anticipated.

# CHAPTER 6. CULTURAL AND HISTORICAL RESOURCES

## 6.1 SUMMARY OF PREVIOUS DOCUMENTATION/EIS ANALYSIS

Section 5.4 of the Riverfront Redevelopment DEIS (pages 5-59 to 5-75, City of Everett, 2007) addressed historical and cultural resources. Appendix J to the DEIS, a more detailed cultural resources assessment for the Riverfront Development site, was provided to Tribes and state agencies with jurisdiction for review and comment.

The assessment and DEIS documented that 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 pre-contact 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 or submerged surfaces containing archaeological materials may be present in the study area.

A few potentially historic features, meaning features more than 50 years old, are also located on the site. These include the log crane in the 3-Acre Park, remains of wharfs, piers, and old railroad trestles along the waterfront. There are also areas where buried foundations from early industrial development on the site remain. Previous archaeological studies did not specifically address historic features nor did they specifically evaluate the eligibility of these features to be listed as historic places on state or federal historic registers.

Expectations for encountering significant historic and prehistoric resources are tempered by the amount and degree of disturbance associated with past and present land use. The site has been substantially disturbed by construction, operation and demolition of industrial structures and operation of a landfill. Recent fill material is widespread throughout the site. However, the analysis indicated a high probability for subsurface archaeological resources in the project area. Any subsurface excavation below the fill may inadvertently uncover and damage archaeological materials.

The DEIS included a monitoring program to avoid adverse impacts to historic properties and human remains. The same monitoring program is described under Section 6.3 Mitigation Measure 2 below.

## 6.2 IMPACTS OF CURRENT PROPOSAL

The Public Amenities Master Plan includes several elements that include subsurface excavation and have the potential to uncover and damage historical or archaeological materials. The potential to impact historical or archaeological materials would be highest for those elements of the Public Amenities Master Plan that involve excavation or grading in areas that have not been as substantially modified by past industrial and transportation uses of the Riverfront Development site or plan elements that required deeper excavation, pile driving, or other work that may affect subsurface materials below fill materials. These elements include excavation for

construction of wetland enhancements and construction of a new channel for Bigelow Creek, excavation of channels and streambank enhancement in Wetland C, utility installation, shoreline armoring and restoration, and driving pilings for bridges, boardwalks, and building foundations.

### 6.3 MITIGATION MEASURES

1. The Public Amenities Master Plan includes multiple cultural and natural interpretive elements, including a potential interpretive facility at the south end of Lowell Riverfront Park, interpretive stations at picnic facilities and along trails, and at the Bigelow Creek trestle bridge viewpoints. Potential subjects include the importance of the riverfront setting to Native Americans, European settlement history in the local timber industry, the role of the railroad, the Landfill and Tire Fire period.
2. Monitoring. The following monitoring program has been incorporated into the current proposal.

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

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 Development Public Amenities Master Plan. 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 Washington State Department of Archaeology and Historic Preservation (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**

- a. 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.
- b. The City will contact the DAHP and the affected tribes within one working day.
- c. 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**

- a. 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.

- b. 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.
  - c. Contemporaneous with notifying law enforcement, the City shall also notify the DAHP and the Tulalip Tribes of the discovery.
  - d. 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.
3. The eligibility of historic or cultural features to be listed as historic places on state or federal historic registers will be specifically evaluated as part of the Section 106 Consultation process anticipated to be triggered by the federal permit process necessary to complete many elements of the master plan.

#### **6.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

With the mitigation identified, no significant unavoidable adverse impacts are anticipated.

# CHAPTER 7. TRANSPORTATION

## 7.1 STUDY METHODS

The proposed public amenities enhancements that have the potential to increase both vehicle and pedestrian activity at the park include expanded and upgraded trails, additional picnic areas, children's play areas, a new 3-acre public park, river look-out areas, multi-use buildings with restrooms, and a float dock for put-in watercraft. This chapter only evaluates the improvements that could increase traffic.

Access options addressed include those for the 3-Acre Park, the Lowell Crossing (pedestrian grade separated bridge) over the BNSF Railway mainline tracks, and access to the Lowell Riverfront Park.

For clarification, the access at 41<sup>st</sup> Street will not be used as a main vehicle access to the public amenities portion of the Riverfront Development. Non-motorized facilities for pedestrians and bicyclists are proposed with this connection and provisions for anticipated non-vehicular traffic from the proposed trail system were anticipated in the design of 41<sup>st</sup> Street. The proposal would not change the requirements for these facilities. This access will mainly serve the Simpson Pad and the commercial areas of the site and will not provide immediate access to public parking areas; therefore, it is not analyzed as a public amenities access option.

### 7.1.1 Traffic Volumes and Project Trip Generation

Traffic analysis of new developments (including for the original Riverfront Redevelopment EIS) typically focuses on the weekday PM peak hour. This is the time period when most roadway systems experience their highest traffic volumes and levels of congestion. Although the public amenities may generate more traffic on weekend days, the background weekend-day traffic in the site vicinity would likely be much lower than on weekdays. In addition, weekend day traffic volumes generated by the public amenities will likely be spread throughout the entire day, and not concentrated into a few peak hours, as typically occurs on a weekday afternoon. Therefore, weekday PM peak hour conditions are the focus for this analysis.

To understand how much weekday PM peak hour vehicle traffic the current amenities are generating, a traffic count was conducted at the Lowell Riverfront Park parking lot driveway on Tuesday, November 3, 2009 between 4:00 and 6:00 P.M. There were 31 vehicles (13 entering and 18 exiting) counted during the PM peak hour. Observations at the north end of the site indicated minimal vehicle activity (fewer than 10 vehicles per hour) and were not related to the public amenities on the Riverfront Development site. The traffic counts were conducted on a mild and cloudy November day, which likely reflects average conditions for the public amenities. Traffic generated during colder, rainy mid-winter months such as December, January, and February are likely to be lower; traffic generated during warmer spring and summer months are likely to be higher. The existing counts were used as a base for the analysis and as a comparison to the estimated future vehicle trips at the Riverfront Development site.

Due to the unique nature and location of the proposed public amenities; there are no published trip generation rates or equations that exactly represent the project. However, *Trip Generation* (Institute of Transportation Engineers [ITE], 8<sup>th</sup> Edition, 2008) includes the land use “Beach Park” (Land Use Code 415) with a similar description of amenities that are planned for the proposed Riverfront Development site. The ITE description notes that the rates are based on parks with “...restrooms, picnic facilities, and hiking....” *Trip Generation* also notes that weather has a direct correlation to the amenities’ usage. Therefore, the Beach Park rates from *Trip Generation* were applied to provide an estimate of potential new traffic that could be generated by the new and enhanced public amenities. These estimates are intended to represent average weekday conditions at the site—on weekdays in mid-winter the site would generate fewer trips, on weekdays in summer, the site would generate more trips.

The Riverfront Development site is about 211 acres, of which about 78 acres are currently natural areas and wetlands. The additional trails, parks, and picnic areas would likely increase this area to about 91 acres. However, to be conservative, 100 acres were used in the trip generation calculations. The directional distributions of public amenities traffic at the Riverfront Development site were based on the traffic counts at the Lowell Riverfront Park access. Table 3 shows the existing and estimated future vehicle trip generation of the public amenities.

**Table 3: Vehicle Trip Generation – Everett Riverfront Development Public Amenities**

Land Use	Size <sup>a</sup>	PM Peak Hour		
		In	Out	Total
Proposed Public Amenities	100 acres	55	75	130 <sup>b</sup>
Existing Public Amenities	78 acres	13	18	31 <sup>c</sup>
Net Change	22 acres	42	57	99

Source: Heffron Transportation, Inc. November 2009.

- a. Based on City of Everett Riverfront Development Public Amenities Master Plan (May 2009), and the Draft Environmental Impact Statement (December 14, 2007).
- b. Based on ITE Trip Generation trip rates for “Beach Park” (LUC 415). Directional distribution based on existing traffic counts.
- c. Based on traffic counts conducted at Lowell Riverfront Park on November 3, 2009.

The estimated weekday PM peak hour vehicle trips were assigned to both, the proposed 3-Acre Park, and the to-be-improved Lowell Riverfront Park based on the available parking and the amenities provided at each location. It is likely that the majority of the park users will either live, work, or visit (e.g., hotel guests) the public amenities from within the Riverfront Development site, or walk from the adjacent Lowell neighborhood as they currently do. However, no reductions to the above trip estimates were made to account for non-automobile trips to and from the site. This ensures a conservative worst-case analysis of potential traffic impacts. About 40 percent of the vehicle trips are estimated to use the 3-Acre Park access and parking, while about 60 percent are estimated to use the southern Lowell Riverfront Park access and parking.

The proposed public amenities and park enhancements will likely result in increased pedestrian trips also, that originate outside the Riverfront Park site. The pedestrian access locations and planned trail crossings are addressed in this Addendum.

### **7.1.2 Driveway Operations and Design**

The driveway operations analysis (level of service) for each of the vehicular site access driveways was prepared for the weekday PM peak hour. Level of service is a qualitative measure used to characterize traffic operating conditions. Six letter designations, “A” through “F,” are used to define level of service. Level of service A is the best and represents good traffic operations with little or no delay to motorists. Level of service F is the worst and indicates poor traffic operations with long delays. The level of service criteria from the *Highway Capacity Manual 2000* (Transportation Research Board, 2000) for unsignalized intersections was used. Trafficware’s *Synchro 7.0* traffic operations analysis software was used to calculate the levels of service. The results were determined and reported using the *Highway Capacity Manual 2000* methodology. The City of Everett does not use level of service standards for driveways, but as a comparison, level of service D is the City’s preferred intersection level of service standard.

The DEIS documents that study area intersections (on and off-site) near both the 3-Acre Park and the Lowell Riverfront Park accesses will operate acceptably with the Riverfront Development site complete during the peak hours. (Some intersection improvements are included in the analysis assumptions.) The analyses in this Addendum are intended to confirm that the potential increase in vehicle and pedestrian traffic will not result in any new adverse impacts that would change the results outlined in the Riverfront Redevelopment EIS. The analyses are also intended to present new analyses of the park access locations that were not specifically addressed in the Riverfront Redevelopment EIS.

Finally, a component of the access analysis includes a review of intersection sight distances for drivers using the park driveways.

### **7.1.3 Parking Supply and Demand**

There are no published parking demand rates or equations for the types of public amenities proposed. Therefore, parking demand estimates were prepared based on counts of the existing facility and proportional increases based on the peak hour traffic estimate described previously in Section 7.1.1. On-site vehicle parking at each of the Riverfront Development site parks was evaluated to confirm if the proposed supply would be adequate to meet the estimated demand. A comparison to the existing parking demand, based on both weekday PM peak hour and weekend parking counts was used. Parking counts were completed at Lowell Riverfront Park on Wednesday, October 28, 2009 at 10:45 A.M. (two vehicles) and 1:30 P.M. (eight vehicles), Monday, November 2, 2009 at 4:30 P.M. (five vehicles) and 5:30 P.M. (four vehicles), and on Saturday November 14, at 3:00 P.M. (12 vehicles).

### **7.1.4 Summary of Previous Documentation/EIS Analysis**

The Riverfront Redevelopment EIS documents that study-area intersections will operate acceptably during peak hours with the proposed Riverfront Development site complete. (These results assume some proposed intersection improvements.) In addition, the on-site intersection of the Spine Road/36<sup>th</sup> Street is also estimated to operate acceptably during both the AM peak hour

(LOS A) and the PM peak hour (LOS B). The 3-Acre Park entrance would be the east leg of this two-way stop controlled intersection.

The EIS documents that the nearest study area intersection to Lowell Riverfront Park (2<sup>nd</sup> Avenue/Lowell-Snohomish River Road) currently operates at a level of service (LOS) C during the weekday PM peak hour. In the future (year 2030) with the proposed Riverfront Development site complete, this two-way stop-controlled intersection is expected to be signalized and is forecast to operate at LOS D.

The EIS did not specifically include additional trips that would be generated by the Public Amenities. Although, it is reasonable to assume that some of the vehicle trips generated by the development would have trip ends at the park, the analysis prepared for this Addendum accounts for all new park-generated trips in addition to those generated by the Riverfront Development.

## **7.2 AFFECTED ENVIRONMENT**

The full project site is bounded on the east by the Snohomish River and on the west by the BNSF Railway mainline tracks. As a result, access to the site is limited to a few locations. The existing public amenities (walking trails and picnic areas) of the Riverfront Development site are accessed using mostly pedestrian connections. There are three vehicle access locations currently serving the site: one on the north end of the site from Pacific Avenue on Eclipse Mill Road, at the recently completed 41<sup>st</sup> Street overcrossing, and one on the south end at the Lowell Riverfront Park parking lot from the Lowell-Snohomish River Road.

Pedestrians from the adjacent Lowell neighborhood can use the existing pedestrian overpass that crosses the BNSF Railway west of S 2<sup>nd</sup> Avenue at approximately Main Street or an at-grade crossing located just south of the Lowell Neighborhood Park east of S 2<sup>nd</sup> Avenue at approximately 48<sup>th</sup> Street E. However, the Lowell Riverfront Park is the primary location park users in vehicles access the Riverfront Development site, since this location has the only parking lot. The north access is an unimproved private road used as a commercial access drive to adjacent businesses and other areas (e.g. Diversified Industries, Newland property, Eclipse property, and Stuchell property). The 41<sup>st</sup> Street SE connection has not yet been opened to the public.

There are transit facilities within the vicinity of the Riverfront Development site. The Everett Station is a multimodal station located at 3201 Smith Avenue, south of Pacific Avenue and west of the Riverfront Development site. This station services several transit providers, including Everett Transit which has stops located along S 3<sup>rd</sup> Avenue-S 2<sup>nd</sup> Avenue just west of the Riverfront Development site. Bicycle lanes are also provided along the east side (northbound direction) of S 3<sup>rd</sup> Avenue-S 2<sup>nd</sup> Avenue between 41<sup>st</sup> Street and Junction Avenue. South of here, the paved shoulder can be used as a bicycle lane.

## 7.3 IMPACTS

### 7.3.1 Traffic Volumes and Project Trip Generation

Traffic generation estimates for the entire park were presented in Section 7.1.1. About 53 percent of the new traffic would access the site at the location of the proposed 3-Acre Park. This represents about 52 PM peak hour trips (22 inbound and 30 outbound). Figure 13 shows PM Peak Hour Traffic Volumes for 2030 at the 3-Acre Park.

About 36 percent of the new traffic would access the site using the Lowell Riverfront Park access. When added to the existing traffic already generated at this park access point, a total of 78 PM peak hour trips (33 inbound and 45 outbound) would occur at the site driveway. This is about 2.5 times the volume currently generated at the existing park access driveway. Figure 14 shows PM Peak Hour Traffic Volumes for 2030 at Lowell Riverfront Park.

### 7.3.2 Driveway Operations and Design

**7.3.2.1 3-Acre Park.** The 3-Acre Park entrance would be constructed as the east leg of the Spine Road/36<sup>th</sup> Street intersection. For this analysis, two-way stop control was assumed at the intersection. Approximately 30 percent of the site traffic was assumed destined to and from the south (through the Riverfront Park site), 40 percent destined to and from the west on 36<sup>th</sup> Street and 30 percent destined to and from the north via Pacific Avenue and Eclipse Mill Road. Site access level of service analysis was prepared using these distribution assumptions combined with the 2030 weekday PM peak hour background traffic volumes documented in the Riverfront Redevelopment EIS (for the preferred alternative). Figure 13 shows the future 2030 weekday PM peak hour traffic volumes at the 3-Acre Park entrance and exit driveways.

The Spine Road/36<sup>th</sup> Street/3-Acre Park entrance intersection is expected to operate acceptably; all movements are forecast to operate at LOS C or better during the PM peak hour in 2030. All movements at the exit-only driveway would operate at LOS B or better during the PM peak hour in 2030. Each driveway would meet the City of Everett's intersection level of service standards. It should be noted that the Spine Road/36<sup>th</sup> Street/3-Acre Park access intersection would also operate acceptably as an all-way-stop or roundabout if the City desires an alternate configuration.

At the exit-only driveway, vegetation along the site frontage should be maintained so adequate sight distance can be accommodated at this location for exiting drivers. In addition, sight distance would be further improved if the exit-only driveway were designed with a bulb-out configuration so the stop bar for exiting traffic is located farther west. This would allow better sightlines past the on-street parallel parking lane to the south of the driveway.

**7.3.2.2 Lowell Riverfront Park.** The Lowell Riverfront Park driveway is located just south of the BNSF Railway mainline rail crossing on Lowell-Snohomish River Road. The forecast future site trips were assigned to the park driveway using the existing directional distribution of about 90 percent destined to and from the northwest and the remaining 10 percent destined to and from the southeast. Site access level of service analysis was prepared using these distribution assumptions combined with the 2030 weekday PM peak hour background traffic volumes documented in the Riverfront Redevelopment EIS (for the preferred alternative). Figure 14

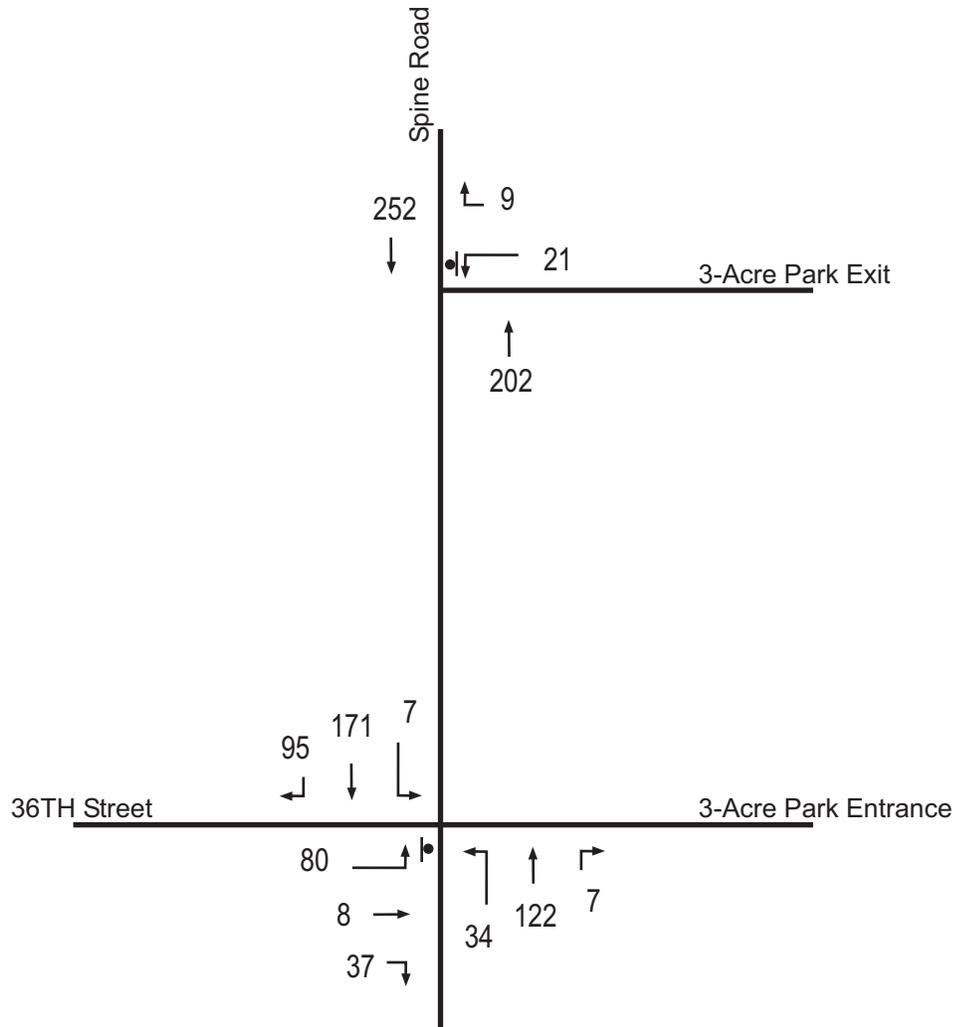
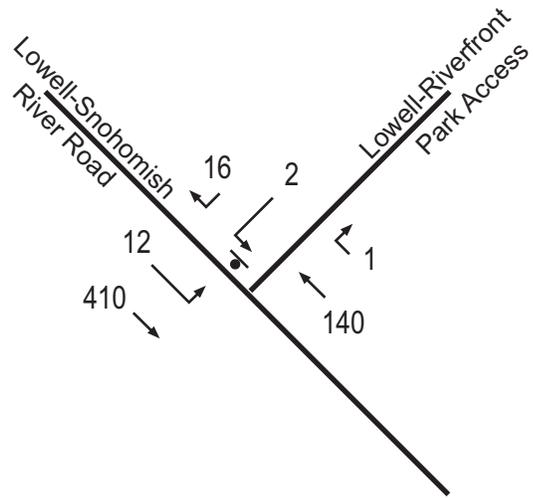
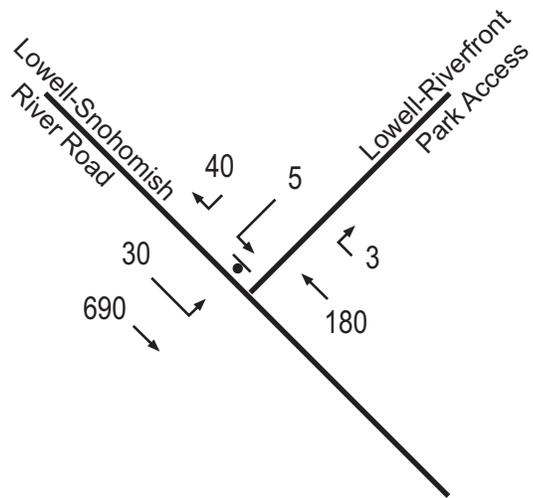


Figure 13

3-Acre Park  
2030 With-Project  
PM Peak Hour Traffic Volumes



Existing (2009) Conditions



2030 With-Project Conditions

shows the existing (2009) and future (2030) weekday PM peak hour traffic volumes at the Lowell Riverfront Park driveway.

The Lowell Riverfront Park driveway is expected to continue operating at LOS B during the weekday PM peak hour in 2030. In addition, with the additional traffic generated by the public amenities enhancements to the Riverfront Development site, the nearby 2<sup>nd</sup> Avenue/Lowell-Snohomish River Road intersection is expected to continue operating at the forecast LOS D (as documented in the EIS with the proposed traffic signal installed) during the weekday PM peak hour in 2030.

Due to the proximity of the rail-crossing, the speed limit of the Lowell-Snohomish River Road at the site driveway is posted at 15 miles per hour (mph). The driveway is also located along a horizontal curve that can limit sight distance to the southeast along Lowell-Snohomish River Road. Vegetation along this roadway should be maintained so adequate sight distance can be accommodated at this location for exiting drivers. In addition, as this parking lot is designed, a sight line analysis should be conducted to adjust the driveway location to a point where the greatest sight distance can be achieved. Alternative traffic control could be considered for the access intersection (e.g. all-way-stop or traffic circle/roundabout).

### **7.3.3 Parking Supply and Demand**

**7.3.3.1 3-Acre Park.** The 3-Acre Park would supply 36 on-site parking spaces and 10 on-street spaces. The existing parking counts at the Lowell Riverfront Park indicate a weekday PM peak hour parking demand of five vehicles and a weekend peak parking demand of 12 vehicles. Future average parking demand for the park was estimated by applying a factor proportional to the estimated increase in peak hour traffic. Based on this method, parking demand during average conditions would be about 21 vehicles on weekdays and about 51 vehicles on weekends. Assuming about 40 percent of the total parking demand (20 vehicles) would occur at the 3-Acre Park, both of the average weekday and average weekend demand levels would be met with the proposed parking supply at the 3-Acre Park site. Parking demand at the 3-Acre Park will fluctuate based on weather conditions, variations in seasonal use, and occasional special events. It is possible that the parking demand could exceed the on-site supply on some days. When this occurs, on-street parking near the park would likely be utilized. However, the 3-Acre Park is not expected to generate regular impacts to nearby on-street parking.

**7.3.3.2 Lowell Riverfront Park.** Lowell Riverfront Park currently has a relatively-large gravel parking lot with no parking spaces designated. The enhancements would include providing about 65 parking spaces in a paved lot. The existing parking counts at Lowell Riverfront Park indicate a weekday PM peak hour parking demand of five vehicles and a weekend peak parking demand of 12 vehicles. Future average parking demand for the entire park was estimated by applying a factor proportional to the estimated increase in peak hour traffic. Based on this method, parking demand during average conditions would be about 21 vehicles on weekdays and about 51 vehicles on weekends. Assuming about 60 percent of the total parking demand (30 vehicles) would occur at Lowell Riverfront Park, both of the average weekday and average weekend demand levels would be met with the proposed parking supply. Parking demand at Lowell Riverfront Park will fluctuate based on weather conditions, variations in seasonal use, and occasional special events. It is possible that the parking demand could exceed the on-site supply

on some days. When this occurs, on-street parking near the park or additional parking at Rotary Park south of Lowell Riverfront Park could be utilized. However, Lowell Riverfront Park is not expected to generate regular impacts to nearby on-street parking or adjacent parking areas.

### **7.3.4 Non-Motorized Improvements**

**7.3.4.1 3-Acre Park.** In addition to the vehicular trips generated by the 3-Acre Park, non-motorized (pedestrian and bicycle) trips are expected to occur from the residential and commercial uses within the Riverfront Development and/or from other existing nearby residences. The additional non-motorized trips would likely use the 36<sup>th</sup> Street connection to the Riverfront Development site.

Non-motorized improvements proposed in the park include pedestrian trails connecting to the Riverfront development trail system and off site sidewalks, and trails that provide a comprehensive circulation system within the Park.

**7.3.4.2 Railroad Corridor Enhancements.** The railroad corridor will be developed to accommodate multimodal uses as a regional trail, along with access for maintenance vehicles. It will be 12 feet wide with an asphalt surface. One side of the trail may be graded and soft-surfaced for pedestrian use only. The trails are likely to include boardwalks or bridges spanning over water. Its vision is to enhance the connection between the public and private areas of the Riverfront Development site and provide universal accessibility.

**7.3.4.3 Riverfront Trail, Group Picnic, and Connections to Simpson Pad.** The Riverfront Trail will be developed to accommodate multimodal uses as a regional trail, along with access for maintenance vehicles. The trail will be 12 feet wide with asphalt pavement and have 5-foot shoulders on both sides. The Riverfront Trail will pass the Lowell Riverfront Park (connecting from Rotary Park to the south) through the Riverfront District along the west bank of the Snohomish River and connect to downtown Everett on a dedicated bike lane and adjacent sidewalk on the 41<sup>st</sup> Street overpass. The trail will follow its existing alignment as much as possible, except for diverges due to the position and grade changes of the new Bigelow Creek outfall.

Alternate or complimentary trail alignments would route through the Simpson Pad from the Riverfront Trail. This could provide connectivity between the private development and the public amenities. The trail would change to on-street bicycle lanes and sidewalks once reaching the Simpson Pad. Some public parking and trail access along the east edge of the Simpson Pad street grid will be provided.

The Riverfront Trail (and the Railroad Trail) will provide many picnicking opportunities with both single and multi-table areas along the trails.

**7.3.4.4 Lowell Crossing.** The informal existing at-grade crossing of the BNSF Railway mainline tracks from S 2<sup>nd</sup> Avenue, just south of the Lowell Neighborhood Park will be replaced with an accessible above-grade overpass. The Lowell Crossing improvements are expected to encourage additional non-motorized trips to the park from the Lowell neighborhood. In addition, there are bus stops both with and without shelters located along S 3<sup>rd</sup> Avenue-S 2<sup>nd</sup> Avenue

within the immediate vicinity of the proposed Lowell Crossing location that could also encourage non-motorized access from to residents outside the immediate vicinity. The additional trips are not expected to result in any adverse transportation impacts. However, one alternative presented in the Public Amenities Master Plan is to provide a secondary path from the proposed overpass that would curve into Lowell Neighborhood Park. Since there is not a sidewalk located on the east side of S 2<sup>nd</sup> Avenue (Junction Avenue) in this vicinity, this additional path is recommended to accommodate additional pedestrian and bicycle traffic to and from the adjacent park and Lowell neighborhood.

**7.3.4.5 Bigelow Creek and South Wetland Enhancements.** The proposal includes returning Bigelow Creek to an alignment consistent with pre-development patterns. Most of the newly constructed stream would be tidally influenced and the tidal influences to the South Wetland Complex will be restored. The enhancements will include a trestle bridge over the new Bigelow Creek stream outfall to maintain pedestrian and bicycle traffic through the area.

**7.3.3.6 Lowell Riverfront Park Improvements.** In addition to the vehicular trips, an increase in non-motorized (pedestrian and bicycle) trips is expected to occur from nearby residential uses. The additional non-motorized trips would likely use the pedestrian access gate via the proposed sidewalks and bicycle lanes along the Lowell-Snohomish River Road and Lenora Street to access the Lowell Riverfront Park portion of the Riverfront Development site. The newly constructed “aqueduct” pedestrian bridge at Main Street could also be used to access the Lowell Riverfront Park from the Lowell neighborhood.

Proposed non-motorized improvements include an improved and widened regional trail along the shoreline

### **7.3.5 Non-Motorized/Vehicular Crossings**

**7.3.5.1 Railroad Corridor Enhancements.** The Railroad Corridor Trail will cross the 41<sup>st</sup> Street bridge/Simpson Pad access road. The best method (at-grade or grade-separated) and location of this crossing/intersection should be evaluated to accommodate a safe relationship for both vehicle and pedestrian activity.

## **7.4 MITIGATION MEASURES**

### **7.4.1 3-Acre Park**

Based on the level of service analysis at the site access driveways for the 3-Acre Park, no mitigation would be required. Vegetation along the site frontage should be maintained to accommodate adequate sight distances for drivers exiting the site driveway. In addition, sight distance would be further improved if the exit-only driveway were designed with a bulb-out configuration so the stop bar for exiting traffic is located farther west. This would allow better sightlines past the on-street parallel parking lane to the south of the driveway.

## **7.4.2 Railroad Corridor Enhancements**

The Railroad Corridor Trail connection to the 41<sup>st</sup> Street bridge/Simpson Pad should be designed to accommodate most efficient and safe intersection between vehicle and pedestrian traffic.

## **7.4.3 Lowell Riverfront Park**

Based on the level of service analysis at the site access driveway for the improved Lowell Riverfront Park, no traffic mitigation is required at this location or the nearby 2<sup>nd</sup> Avenue/Lowell-Snohomish River Road intersection. However, vegetation along Lowell-Snohomish River Road should be maintained to ensure adequate sight distances are provided for the exiting drivers. A sight-line analysis should be conducted during the design of the parking lot and driveway location.

## **7.5 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

There are no anticipated significant unavoidable adverse impacts anticipated as a result of the implementation of the Public Amenities Master Plan on the transportation network.

## **CHAPTER 8. PUBLIC SERVICES**

### **8.1 SUMMARY OF PREVIOUS DOCUMENTATION/EIS ANALYSIS**

Section 5.6 of the DEIS for the Everett Riverfront Redevelopment (pages 5-120 to 5-133, City of Everett, 2007) addressed existing conditions, impacts, and mitigation measures related to police, fire, and emergency services; general municipal services (including parks and recreation); and schools. Section 5.3 of the DEIS addressed parks, public trails and recreation activities located in the vicinity of the project site. Previous EISs for the City's Comprehensive Plan Updates also addressed these issues more generally related to overall growth projected within Everett's Planning Area. Impacts generated by the project are within the range of growth and development projected in the City's Comprehensive Plan.

### **8.2 AFFECTED ENVIRONMENT**

The scoping notice for the Public Amenities Master Plan identified fire/emergency medical services (EMS), police and parks as the public services that would be further evaluated in this Addendum.

#### **8.2.1 Fire/EMS/Police**

Routine emergency response routes will occur on the 41<sup>st</sup> Street overcrossing and internal street system proposed as part of OliverMcMillan, LLC's development. The OliverMcMillan, LLC proposal also includes two emergency access roads for Fire, EMS and Police access to the Simpson Pad. The first is a construction access located to the south of the 41<sup>st</sup> Street bridge. The second would begin at Lowell Riverfront Park and use the BNSF Railway corridor for northbound passage to the Simpson Pad site.

#### **8.2.2 Parks**

The Everett Parks and Recreation Department provides a range of services throughout Everett, including provision and maintenance of City parks, and operating parks and recreation programs. The Department provides approximately 1,600 acres of regional and waterfront parks, trails, playgrounds, and environmental areas, caring for more than 40 parks and two golf courses.

### **8.3 IMPACTS**

#### **8.3.1 Fire/EMS/Police**

During construction and operation of the public amenities, there will be an increased need for police, fire and emergency medical services at the site. During construction, accidents or medical incidences could require fire suppression, 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. Following construction, the increased usage of

the site by the public will also result in additional need for police, fire and emergency medical response. The City does not anticipate substantial impacts to Fire or Police Department staffing or equipment needs related to construction and operation of the public amenities.

As with the OliverMcMillan, LLC development, the primary emergency response routes will be located on the primary street system, and the emergency access routes to the Simpson Pad. The Public Amenities Master Plan includes joint use of the required emergency access roads to the residential development on the Simpson Pad. These routes would be routinely used as pedestrian and bicycle paths, but would be available for fire trucks and emergency vehicles if needed. The proposal also includes joint use of other on-site trails where emergency access is required. For example the regional Riverfront Trail and the internal Railroad Corridor Trail will be 12 feet wide, asphalt paved, with larger radius curves and gentle grades. Where emergency access is required, these trails may be supplemented with reinforced shoulders to provide a drivable span without an expanded width of pavement. Access for emergency vehicles will be required to the structures in the 3-Acre Park, picnic shelter east of the Simpson Pad, and in Lowell Riverfront Park.

### **8.3.2 Parks**

Chapter 5 of this Addendum provides more information on the types of facilities to be provided as part of the Public Amenities Master Plan. The provision of parks and recreation facilities proposed on the site will help to meet the demand for local and regional park facilities for Everett's expanding population. The Parks Department estimates an additional 1.25 full time equivalents will be needed to maintain the improvements per the City's maintenance standards. The estimate was based on historical data that is part of the Parks Department "Mainsaver" software work management system. Additionally, \$60,000 per year would be required for supplies/materials costs such as turf, landscaping, restroom and equipment maintenance, vehicle maintenance and operations, and lighting. These costs include the costs of cleaning after flooding events.

## **8.4 MITIGATION MEASURES**

1. Access. The International Fire Code requires that all new structures shall provide Fire Department access roads to within 150 feet exterior walking distance of all portions of the ground floor. Fire Department access roads (fire lanes) shall provide a minimum of 20 feet in width of unobstructed, paved driving surface with a minimum clear height of 13 feet 6 inches. Inside turn radii must be 35 feet. Outside turn radii must be 55 feet. Slope approach and departure angles must not exceed 8 degrees. Fire lane grade must not exceed 15 percent. Fire lane construction must comply with AASHTO H30 load capacity. Fire lanes will be posted and maintained as required by the Fire Department.

Turnarounds Required. Roads with a length of 151 to 500 feet must be 20 feet wide; 96-foot-diameter cul-de-sac, 120-foot hammerhead or Y and 120-foot Tee is required.

- a. The roundabout proposed in Lowell Riverfront Park and the parking area in the 3-Acre Park must meet access requirements.

- b. Weight restriction signs must be posted on all roads and trails, including bridges.
  - c. Connector trails and regional trails with bridges must support 12,000 pounds gvw.
2. Standpipe systems must comply with National Fire Protection Association (NFPA) 14. A Fire Department Connector (FDC) must be provided from the residential area on the Simpson Pad to the picnic shelter (dry standpipe FDC) for firefighting.
  3. Hydrants. Water flow information and the number of hydrants required will be determined when more detailed information is provided. A fire hydrant is required within 200 driving feet, but not closer than 50 feet, of every structure. Locations of the hydrants shall be approved by the Fire Official for buildings in the 3-Acre Park, the group picnic area, and Lowell Riverfront Park.
  4. Access Road Width with a Hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet.
  5. Knox Box. Knox gate keys or locks are required by locked accesses.

## **8.5 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

With the mitigation measures identified, no significant unavoidable adverse impacts are anticipated.

## **CHAPTER 9. UTILITIES**

### **9.1 SUMMARY OF PREVIOUS DOCUMENTATION/EIS ANALYSIS/AFFECTED ENVIRONMENT**

Section 5.6 of the DEIS for the Everett Riverfront Redevelopment (pages 5-120 to 5-133, City of Everett, 2007) addressed existing conditions, impacts, and mitigation measures related to utilities, including water, sanitary sewer, electricity, telecommunications, solid waste and natural gas. Previous EISs for the City's Comprehensive Plan Updates also addressed utility capacity issues related to overall growth projected within Everett's Planning Area.

### **9.2 IMPACTS**

#### **9.2.1 Sewer and Water Services**

Additional sewer and water services will be needed for the proposed buildings in the 3-Acre Park, at Lowell Riverfront Park, and the group picnic facility in the Riverfront Trail area by the Simpson Pad. Restrooms and sink basins may be provided at the group picnic facility. Water service would also be needed for irrigation systems, drinking fountains along the trails, and required fire hydrants.

The sanitary sewer service at Lowell Riverfront Park will require a sewer force main to reach the nearest gravity flow manhole on Lenora Street. The design will likely be similar to a commercial grinder/pump installation, rather than a lift station. Current plans anticipate that gravity flow can be provided from the 3-Acre Park to the new sewer main in the central road servicing the Eclipse Mill portion of the site, but detailed design is not yet available.

#### **9.2.2 Coordination with Utilities Infrastructure**

The Public Amenities Master Plan has been closely coordinated with the location of existing and proposed utilities on the site. The Railroad Corridor Trail is designed and located to accommodate the leachate collection system for the landfill, the slurry wall for groundwater cutoff, site stormwater and sewer collection facilities, and a relocated PUD tower, along with regular maintenance vehicle access.

A relocated pump and lift station is proposed south of the 3-Acre Park to serve the OliverMcMillan development. Maintenance access to this facility will double as a trail connecting the park to OliverMcMillan, LLC's upland mixed-use development. The parking and group picnic building in the 3-Acre Park, and the adjacent pump/lift station structure and parking will be elevated 2 feet above the 100-year flood elevation. The fill needed to raise the pump/lift station and parking may be completed in conjunction with the fill for the park.

### **9.3 MITIGATION MEASURES**

1. The Railroad Corridor Trail must be constructed to accommodate the various weights, widths, and turning radii of utility service vehicles ranging in size from small pickup trucks to large power line trucks.
2. Sewer and water services must be designed and constructed per City Design and Construction Standards and Specifications.

### **9.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

There are no significant unavoidable adverse impacts anticipated as a result of the implementation of the Public Amenities Master Plan on utilities.

## **CHAPTER 10. EARTH/GEOLOGY/SOILS**

This section is based upon a review of information in the Riverfront Redevelopment EIS, particularly Section 4.1, Earth Resources of the DEIS, and relevant report and map sources referenced therein; coupled with field reconnaissance by geologists and engineers from HWA GeoSciences Inc. (HWA). The field reconnaissance efforts included shallow handhole excavations within approximate areas of proposed amenities as delineated in the Public Amenities Master Plan. Also, information was utilized from HWA's 2007 reconnaissance of the riverbank by boat during low tides.

### **10.1 EIS ANALYSIS/AFFECTED ENVIRONMENT**

The portion of the Riverfront Redevelopment site addressed in the Public Amenities Master Plan is on the flat-lying alluvial floodplain of the Snohomish River. Much of the site contains fill placed over the alluvial soils. Geologic hazards identified by the EIS for the entire site include a high seismic liquefaction potential, ground settlement, lateral spreading within 100 to 200 feet of the riverbank, and erosion. Additional information on existing conditions is provided below for portions of the site.

#### **10.1.1 3-Acre Park**

The proposed 3-Acre Park will occupy the southeastern portion of the historic Eclipse Mill site. According to the Riverfront Redevelopment EIS, soil conditions consist of fill over alluvium. Previous borings indicated the fill generally consisted of silt, sand, and gravel, with organics. The alluvium consisted of silt, clay, and sand in variable proportions. The site was a former log handling yard adjacent to the riverbank. HWA's reconnaissance indicated the presence of about 6 to 8 inches of loose organic soil (formerly bark dust and chips) over dense, silty, sandy gravel (fill for log yard). The riverbank is lined with old timber piles as well as more recent steel sheet piles in the immediate vicinity of an old crane unit.

#### **10.1.2 Railroad Corridor Enhancements**

The rail beds consist of granular fill, elevated several feet above native sandy silt alluvium as observed between two of the parallel rail bed embankments.

#### **10.1.3 Lowell Riverfront Park Improvements**

The park is situated upon a flat-lying filled area of the floodplain on the outside bend of the river, such that the land is susceptible to channel scour and bank erosion, and potential future liquefaction and lateral spreading as identified in the DEIS. The riverbank is presently near vertical to being undermined in the upper several feet, with concrete, steel, and wood demolition debris exposed beneath and within sandy silt fill. Several small slumps of the riverbank are evident.

## **10.2 IMPACTS**

The potential impacts during construction and long-term to earth resources include those identified in the Section 4.1 of the DEIS, including seismic hazards during construction and operation, erosion hazards during construction and operation, and long term changes to landform due to excavation and fill activities. Because many portions of the site were previously developed, excavation activities may encounter contaminated soils and old structures.

### **10.2.1 3-Acre Park.**

Of particular concern to this site are increased risks of damage due to seismic lateral spreading, due to the proposed locations of the new boat pavilion/overlook and floating dock in close proximity to the riverbank. Some consideration is being given to preservation and incorporation of the old crane into the new development and its continued presence presents a potential impact on the future stability of the riverbank as well.

The park site will be graded such that the parking and group picnic building will have a finish floor elevation of 19.9 feet, 2 feet above the 100-year flood elevation of 17.9 feet. Approximately 27,700 cubic yards of fill will be required.

The Public Amenities Master Plan proposes removal of the existing armoring along the shoreline to the extent allowed by river hydraulics and the upstream and downstream bank conditions, and the restoration of a 50-foot-wide riparian native plant zone along the water. If the existing crane will be kept and incorporated into the park development, then the existing foundation system for the crane and sheet piling will need to be evaluated for future long-term stability. In the event that the existing foundation system is determined to be insufficient for continued long-term support, additional pilings will be added to preserve the integrity of the structure. In conjunction with the overlook and dock development, it is anticipated that additional pilings will be driven in bank areas and within the river to support the necessary facilities. Some riverbank modification, in the form of a combination of laying back of the slope and selective hardening or armoring, is anticipated for a distance of some 125 feet in this location. It is anticipated that some or all existing old timber pilings will be removed in this interval.

### **10.2.2 Railroad Corridor Enhancements**

The proposal includes removal of fill along portions of the rail beds, paving of portions of the rail beds, and construction of overlook boardwalks onto adjacent wetlands.

### **10.2.3 North Wetland Complex Enhancements**

Proposed improvements include re-establishment of former tidally influenced stream channels (to be named Walton Creek), connected to the river. This would require excavation of tributary channels generally ranging in dimension from 3 feet deep and 3 feet wide, increasing to up to 15 feet deep with side slopes inclined at 2H:1V (Horizontal:Vertical) for the main channel at the riverbank. This excavation would occur within a flat-lying wetland area on the river floodplain, susceptible to erosion, liquefaction, and lateral spreading as identified in the DEIS. Construction

and removal of temporary berms will be required to isolate the excavation areas from the river and existing stream runoff during construction.

#### **10.2.4 West Wetland Complex Enhancements**

Proposed improvements include earthwork to construct soil hummocks within the wetlands in order to diversify habitat. Selective placement of fill hummocks within the cattail wetland will require construction of temporary roads for equipment and truck access, and possibly temporary dewatering.

Impacts will be minimized by constructing temporary roads made of granular fill through the wetlands in such a manner as to allow removal of the fill during equipment retreat and placement in planned hummock locations along the roads. Judicious use of geotextiles/geogrids will provide isolation of fill from native materials and will facilitate sections of road to be removed while leaving native materials in place. Fill removal in areas which have consolidated and settled due to short-term fill surcharge loading will create slightly deeper areas for habitat diversity.

#### **10.2.5 Riverfront Trail, Group Picnic, and Connections to Simpson Pad**

The existing paved Riverfront Trail traverses this area from the northeast corner of the Simpson Pad to the proposed Bigelow Creek crossing. Most of the trail is within about 200 feet of the riverbank. Proposed improvements include reconstruction and widening of the existing paved trail; construction of new trails to the Simpson Pad, including boardwalks; and construction of a group picnic shelter near the riverbank.

Potential impacts include erosion during construction. Long-term bank stability may be an issue through this area. At this time, no plans have been developed that involve stabilization measures for any sections of the existing riverbank. Some minor instabilities in the riverbank have been identified, but trail and other development will be sufficiently separated from such areas so as not to be impacted by or have an impact on these areas. Near the northeast portion of the Simpson Pad, the existing trail alignment may be abandoned to avoid an unstable riverbank section and a new trail constructed inland, allowing the shoreline area to be restored. In the long-term, riverbank stabilization may be necessary in order to prevent loss of parkland due to potential erosion and river scour, and failure or lateral spreading associated with large seismic events.

#### **10.2.6 Lowell Crossing**

Lowell Crossing would consist of a pedestrian bridge over the railroad tracks, with an earth abutment anticipated at the east end supporting an ADA compliant spiral patch down to existing grade.

#### **10.2.7 Bigelow Creek and South Wetland Complex**

Proposed improvements include re-establishment of tidally influenced stream channels within an area of a former mill yard, ending with a new Bigelow Creek channel connected to the river.

This would require excavation of tributary channels generally ranging in size from 3 feet deep and 3 feet wide, increasing up to 15 feet deep at the riverbank with up to 2H:1V (Horizontal:Vertical) sideslopes. This would occur within a flat-lying wetland area on the river floodplain, susceptible to erosion, liquefaction, and lateral spreading as identified in the DEIS.

A curved trestle-like pedestrian bridge will carry the Riverfront Trail over Bigelow Creek near the river. New dikes will be constructed for trail connections to the Simpson Pad and the WSDOT parcels. Riverbank stabilization would be necessary along a deep-seated landslide affecting the existing Riverfront Trail and old piles along the shoreline.

Construction and removal of temporary berms will be required to isolate new excavation areas from the river and existing stream runoff. During excavation, there is the potential of encountering former construction elements.

### **10.2.8 Lowell Riverfront Park Improvements**

The Public Amenities Master Plan calls for stabilizing the riverbank through this reach, with some portions probably shored and others regraded. Additional improvements include construction of a multi-purpose building, paving of the parking lot and construction of a turnaround, reconstruction and widening of the Riverfront Trail, and construction of concrete sidewalks to the street.

The Public Amenities Master Plan proposes removal of the existing armoring along the shoreline to the extent allowed by river hydraulics and the upstream and downstream bank conditions, and the restoration of a 50-foot-wide riparian native plant zone along the water. The extent of riverbank treatment and the means of effecting stabilization remain to be identified in future investigation and design work to this end, but it is anticipated that up to 400 feet of bank may be involved in these planned improvements.

Of particular concern to this site is increased risk of damage due to seismic lateral spreading, due to the close proximity of all improvements to the riverbank. Also, contaminated soils may be encountered during the selective regrading of the riverbank, during which contaminated soil and water could impact the river.

## **10.3 MITIGATION MEASURES**

Site-specific geotechnical investigations will determine if pile foundations are needed to mitigate settlement beneath proposed structures (group picnic shelters, multi-purpose buildings, boat pavilion/overlook, trestle bridge across Bigelow Creek, Lowell Crossing, etc.) and if ground improvement such as stone columns or other methods would be effective or economical for prevention of lateral spreading near proposed structures. The geotechnical report for Lowell Crossing should also address whether pre-loading is needed to mitigate for soil mound settlement and potential basal failure risks. Construction and foundation work shall comply with applicable International Building Codes (IBC). The geotechnical engineer must sign off on plans documenting that the permit submittals are consistent with recommendations in the geotechnical reports.

Geotechnical reports must address the old crane structure and its supporting foundations in the 3-Acre Park to determine if any mitigation measures are necessary to ensure its future stability and that of the immediately adjoining riverbank. New pilings may be required in the immediate vicinity of the structure to ensure its long-term stability if it is incorporated in the park development.

Geotechnical reports must include protocols to follow in the event that previous subsurface site development facilities are encountered during excavation.

Riverbank stabilization may be necessary in order to prevent loss of parkland in the long-term, due to potential erosion, sliding and river scour, and failure or lateral spreading associated with large seismic events. Streambank and riverbank stabilization will be designed consistent with the Integrated Streambank Protection Guidelines, Washington State Aquatic Habitat Guidelines Program, 2002. Geotechnical studies for riverbank and streambank stabilization must be submitted with Shoreline Permit applications.

Development must meet City of Everett Erosion and Sediment Control Standards and obtain a Construction Stormwater General Permit from Ecology. The Stormwater Pollution Prevention Plan shall incorporate the following basic strategies and elements, as applicable: a) Schedule/coordinate grading and construction activities to minimize soil exposure; b) Rapidly vegetate and/or mulch denuded areas; c) Keep runoff velocities low; d) Intercept and direct surface water to a stabilized discharge outlet; e) Prepare drainage and outlets to accommodate concentrated or increased runoff; f) Trap sediment on-site utilizing BMPs including: interceptor swales, straw bale barriers, silt fences, straw mulch among other methods; g) Inspect and maintain control measures frequently; h) Locate stormwater retention and conveyance systems down gradient from areas believed to have previous soil/groundwater contamination to prevent “soaking” of potentially hazardous or mobile soils; and i) Maintain and protect critical areas and buffers. If possible, perform critical areas and buffer enhancements prior to upland construction to establish vegetation and stabilize slopes more completely.

BMPs and erosion control measures will be specifically designed to address the individual causes and sources of erosion and sedimentation. Designs and BMPs must include prevention of long-term erosion and instability of new or modified stream channel side slopes, including riprapping of the relocated Bigelow stream outlet at the river. The stormwater plan shall include primary and secondary control measures to prevent over-reliance on a single design feature to control erosion and sedimentation. Monitoring and maintenance shall be conducted on a regular basis and after all large storm events by qualified personnel. Provisions for modifications to the erosion control system, based on monitoring and maintenance observations shall be included in the stormwater plan.

Soil work impacts can be minimized by following a site-specific soil management plan, which shall describe soil handling in areas that are known or suspected to contain contaminants. The plan shall include instructions for minimizing dust, capturing liquid runoff, and establishing appropriate health and safety monitoring to ensure worker protection.

#### **10.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

There are no significant unavoidable adverse impacts anticipated as a result of the implementation of the Public Amenities Master Plan on earth resources.

# CHAPTER 11. WATER RESOURCES

## 11.1 STUDY METHODS

### 11.1.1 Groundwater and Environmental Health

This section is based upon a review of information in the Riverfront Redevelopment EIS, particularly Sections 2.1, 4.1, 4.3, 4.4, and 5.7; and field reconnaissance efforts by geologists and engineers from HWA GeoSciences Inc. The field reconnaissance work included shallow handhole excavations within approximate areas of proposed amenities as delineated in the Public Amenities Master Plan. Also, information was utilized from a 2007 reconnaissance of the riverbank by boat during low tides.

### 11.1.2 Hydrology, Flooding, Water Quality and Climate Change

Information on the existing groundwater and surface water regimes in the Riverfront Development area has been reviewed and evaluated from previously completed environmental and geotechnical reports. GeoEngineers and West Consultants conducted previous studies on the Snohomish River system, and the effect of the Riverfront Development site on flood levels was documented in Revised Section 4.3 of the FEIS.

The effects of climate change on the hydrologic regime of the Snohomish River were addressed in Section 4.3.3 of the FEIS, and found to have a minimal impact. Without a consensus on climate change impacts and the potential rise in sea level, a range was estimated for the Puget Sound between 3 to 22 inches for the year 2050 and 6 to 50 inches for year 2100. With respect to extreme flood events, the effect on the site was deemed minimal due to the minor influence the tidal elevations have on the flood elevations of the river. Tables 4.3.9 and 4.3.10 of the FEIS identify the changes in flood elevations at the FEMA sections for the future 100-year and 500-year events given the varying assumptions with respect to sea level rise in Puget Sound. Under the worst-case scenario (5-foot rise), the 100-year flood elevation would rise by 7.44 inches at the 3-Acre Park site. This would have no impact to the structures on site since they will be set 2 feet above the current flood elevation. Even at the 500-year flood (9.6-inch rise) the buildings would be above the water surface.

Any impacts that would occur from sea level rise would be similar to those that have already been considered and mitigated for (flood-proof shelters and other facilities, etc.). Habitat and vegetation would not be affected. The effects on water surface elevations described above are during the extreme flood events. Elevation changes to the ordinary high water, which would be where the change in vegetation would occur, will be minor; therefore, this chapter addresses impacts from flooding, but does not further address climate change.

In 2008, a Biological Opinion was issued by National Marine Fisheries Service related to the impacts on species listed under the Endangered Species Act from implementation of the Federal Emergency Management Agency (FEMA) Flood Insurance Program in Puget Sound. In response to the Biological Opinion, FEMA is in the process of developing regional guidance for floodplain habitat assessment and mitigation. The guidance may result in changes to the way

Everett reviews and regulates projects in the floodplains. The City will review applications under the policies and regulations that are in effect at time of application.

### **11.1.3 Stormwater**

The methodology used to address stormwater impacts of the Public Amenities projects is to manage the runoff in accordance with the Department of Ecology (Ecology) 2005 *Stormwater Management Manual for Western Washington* (SWMM). Redevelopment of the park area will result in changes to the quality and quantity of stormwater runoff from the site. If not mitigated for these changes could potentially have negative impacts to the surrounding environment. The SWMM provides the technical guidelines to implement measures for developments to meet the water quality standards to protect receiving water bodies. A project that implements measures in compliance with these guidelines is presumed to have mitigated against adverse impacts to receiving water bodies.

The Snohomish River is listed by Ecology as a “Flow Control-Exempt Surface Water” (SWMM, Appendix 1-E) and therefore proposed improvements that discharge directly to the river do not require detention of stormwater runoff. Ecology does require treatment of runoff from pollution-generating impervious surfaces.

Geotechnical investigations have been conducted on the proposed sites to be developed by OliverMcMillan (GeoEngineers, 2007), however none have been completed at the time of the preparation of this memorandum specifically on the Public Amenities sites. This memorandum relies on the known conditions of the area in general to extrapolate on the conditions of these sites. Generally the subsurface soils throughout the Riverfront Development site are made up of fill from dredging operations overlying fine-grained alluvial deposits to depths of 32 to 47 feet. Other studies (HWA GeoSciences, 2003) had identified a shallow aquifer beneath the site at depths between 3 and 12 feet.

The treatment facilities will be designed using continuous simulation hydrologic modeling in accordance with the guidelines of the SWMM.

## **11.2 3-ACRE PARK**

### **11.2.1 Summary of EIS Analysis/Affected Environment**

The existing conditions and affected environment were described in

- Section 4.3.2 of the FEIS (surface water)
- Section 4.1.3 of the DEIS (groundwater)
- Section 5.7.2 of the DEIS (environmental health).

The proposed 3-Acre Park will occupy the southeastern portion of the historic Eclipse Mill site. A shallow aquifer exists below the site. The EIS notes groundwater elevations in the former Eclipse Mill area to be at about 6 to 8 feet below ground surface, and as little as 4 feet near the riverbank. DEIS Figure 3.2-1 shows that the park area is located within the floodway and floodplain of the Snohomish River, and floods during high events.

Soil conditions consist of fill over alluvium. Previous borings indicated the fill generally consisted of silt, sand, and gravel, with organics. The alluvium consisted of silt, clay, and sand in variable proportions. Section 5.7.2.5 of the DEIS states that initial investigation efforts by GeoEngineers (2003) "...did not identify contaminants that exceeded MTCA Method A soil or groundwater cleanup levels."

## **11.2.2 Impacts**

The existing topography of the 3-Acre Park is relatively flat with large stockpiles of debris that will be removed from the site and disposed of. The existing elevation is between 12 and 15 feet (NAVD 88). The park site will be graded such that the parking and group picnic building will have a finish floor elevation of 19.9 feet, 2 feet above the 100-year flood elevation of 17.9 feet. Approximately 27,700 cubic yards of fill will be required. This fill may be completed in conjunction with the fill needed to raise the adjacent combined sewer pump/lift station and parking two feet above the 100-year flood plain. An additional 5,700 cubic yards of fill will be required for that work.

The riverfront overlook near the boat ramp will be set at an elevation of approximately 14.0 feet and will be designed to withstand inundation of the river. Trails on the site will vary from approximately 19.0 feet near the picnic building dropping in grade approaching the riverfront. Along the riverbank, the trail will be at an elevation of approximately 15.0 feet, below the flood elevation.

Fill is likely to occur within the floodway of the Snohomish River for shoreline restoration and access to the water. Current plans anticipate that it will primary be offset by cuts in the floodway.

**11.2.2.1 Groundwater/Environmental Health.** Contamination is not expected to be found on the site. If contamination is found in near-surface soils, infiltration of stormwater, whether intended through designed facilities or unintended via leakage from surface flow, could impact groundwater quality.

**11.2.2.2 Hydrology/Flooding.** The development of the park will place fill within the floodplain of the Snohomish River to provide flood protection to the driving surfaces and buildings (with the exception of the shelter near the float dock). The impacts to water resources have been previously described in Section 4.3.3 of the FEIS.

The 3-Acre Park site will be filled to construct the parking and group picnic shelter above the 100-year flood elevation. Wetlands J, K and M will be impacted by the fill. These impacts are addressed in Chapter 12 Wetlands and Streams of this Addendum.

Other impacts include installation of a dock and riverfront overlook structure, and bank stabilization measures along the riverbank. The overlook structure will be constructed in the floodplain at or near the existing grades. The floating boat launch will extend into the floodway secured to pilings.

Fill is likely to occur within the floodway of the Snohomish River for shoreline restoration and access to the water. Any fill, in combination with associated cuts and bank work are not anticipated to significantly limit the movement of water or impact the flood elevation.

**11.2.2.3 Stormwater Management.** The development of the park will change the hydrology of the site. The addition of impervious surfaces in the form of a building, parking lot and trails will result in an increase in the volume of runoff. Vehicle traffic to the site will generate pollutants that can be carried from the site with the stormwater runoff.

### **11.2.3 Mitigation Measures**

**11.2.3.1 Groundwater/Environmental Health.** Mitigation measures for groundwater impacts include those identified in Section 4.1.4 of the DEIS. Specific to this site, design of stormwater infiltration facilities would require additional detailed subsurface investigations in order to determine the presence or absence of contaminants. If there is contamination that exceeds cleanup levels, then stormwater controls may be needed to prevent spreading potentially contaminated soils and/or water-borne contaminants. Any areas found to be contaminated would need to be addressed as necessary by a Storm Water Pollution Prevention Plan, and a site-specific soil management plan. Per the EIS, the design and construction should “locate stormwater retention and conveyance systems down-gradient from areas believed to have previous soil/groundwater contamination to prevent ‘soaking’ of potentially hazardous or mobile soils.” Also, the creation of impervious surfaces such as roof structures and paved parking areas will reduce the amount of water infiltration or soil soaking on site. During construction, sufficient training and oversight of personnel may be necessary for recognition of potential unknown hazards.

**11.2.3.2 Hydrology/Flooding.** Most of the proposed park improvements are located within the flood fringe, which is that area between the 100-year Floodway and the limits of the 100-year Floodplain. The City of Everett Municipal Code (EMC 19.30) allows for fill within these limits, and buildings must have a finish floor elevation 2 feet above the 100-year flood elevation. Mitigation for potential flooding impacts to the 3-Acre Park includes filling the site such that the finish floor elevation of the group picnic shelter and parking are above the 100-year flood elevation of the river.

All facilities to be installed at or below elevation 17.9 will be designed to withstand flooding. This includes the shelter and the boat ramp, dock and pilings. Proposed stormwater facilities will also be located in the floodplain. Maintenance will be required to inspect and clear the facilities of mud and debris after a flood event. Trails will need to be cleaned. Periodic maintenance will be required to clear the stormwater swales of debris from flooding events and ensure the mulch and vegetation are in functioning condition following flood events.

For any fill proposed in the floodway, a backwater analysis must be completed and a “No Rise” analysis may be required to document that the fill would have no adverse effects. An equivalent cut may be required to mitigate for the fill. All fill in the floodway must be consistent with City floodplain regulations in EMC 19.30. The proposed fill and any structures in the floodway district must be approved as a Conditional Use per EMC 19.30 and meet the following standard: "No structures (temporary or permanent), fill (including fill for roads and levees), deposit,

obstruction, storage of materials or equipment, or other uses, shall be allowed which, acting alone or in combination with existing or future uses, shall unduly affect the capacity of the floodway as determined by the city."

**11.2.3.3 Stormwater Management.** Mitigation is not required for the increased runoff volumes, since the site discharge is to the Snohomish River which is exempt from flow control. The stormwater runoff will receive basic treatment in accordance with the Ecology requirements for the parking lot surfaces. Sidewalks, trails, and buildings are not considered pollution generating. The conceptual plan for on-site water quality treatment is to construct biofiltration swales, or rain gardens, for treatment. A small facility is proposed within the landscaped area to the south of the group picnic shelter to collect and treat the runoff from the drive aisle entering from 36<sup>th</sup> Street. A second facility is proposed within the landscaped area along the northern boundary line of the park site. The facilities will be at a lower elevation than the driving surfaces and will therefore be below the flood elevation and within the floodplain.

Pending additional geotechnical exploration to identify the site-specific subsurface conditions of the soils and groundwater, these facilities will be designed to either infiltrate through the existing soils or be dispersed to sheet flow over the lawn area and discharge to the river.

Construction of the site will disturb existing vegetation and soils and if not addressed could lead to release of sediments and an increase in turbidity in the adjacent streams. Erosion control BMPs will be implemented to protect the water resources. Typical measures include silt fence or compost berm, which acts as a barrier and slows runoff from the site allowing sediments to settle out. Portions of the riverbank will be sloped back, but where no changes are proposed, the existing vegetation will be maintained to act as a buffer. See the mitigation measures included in Chapter 10 of this Addendum.

#### **11.2.4 Significant Unavoidable Adverse Impacts**

There are no anticipated significant unavoidable adverse impacts as a result of the implementation of the 3-Acre Park element of the Public Amenities Master Plan on groundwater resources, or the Snohomish River.

### **11.3 RAILROAD CORRIDOR ENHANCEMENTS**

#### **11.3.1 Summary of EIS Analysis/Affected Environment**

The existing conditions and affected environment have been previously described in

- Section 4.3.2 of the FEIS (Water Resources – Surface Water, including flood hazards, and channel migration)
- Section 4.1.3 of the DEIS (groundwater)
- Section 4.4.2 of the DEIS (stormwater.)
- Appendix E of the DEIS (wetlands)

Rail beds abandoned by BNSF Railway for the Riverfront Development, between the North Wetland Complex and the Landfill site, will be utilized for the Railroad Corridor Trail. The rail bed consists of granular fill, elevated several feet above native sandy silt alluvium as observed

between two of the parallel rail bed embankments. The railroad corridor is on the flat-lying alluvial floodplain adjacent to the Landfill site, where the EIS identifies a shallow aquifer, a confining layer, and a deep sand aquifer.

Wetlands S, T, U, V, W and Z are located in the corridor.

### **11.3.2 Impacts**

The railroad corridor enhancements include removing the existing railroad ballast to create wetland buffer and enhance the wetlands that exist along the corridor. Bigelow Creek and West Ditch Creek flow parallel to this rail corridor and will be diverted from these channels as part of the overall enhancements to restore them to their historical alignments.

The primary trail through the railroad corridor will be on the maintenance/emergency access road at the base of the landfill. This section will be a total of 23 feet wide with 12 feet of asphalt, two 2-foot-wide crushed rock shoulders, a 5-foot-wide jogging/refuge lane, and a minimum 1-foot level, unpaved span at each side of the trail for safety. Loop trails are proposed as spurs off of the main trail into Wetland C. The southern portion will be primarily a connector trail with some bridge/boardwalk sections. It would be 12 to 14 feet wide with 8 to 10 feet of pavement. A portion of the proposed connector trail would be constructed on fill placed within a small area of Wetland C encumbered by a restrictive covenant limiting excavation within its boundaries. A trail or boardwalk is also proposed between the 41<sup>st</sup> Street bridge (Simpson Pad entry) and the Railroad Trail.

Chapter 12 of this Addendum, Wetlands and Streams, addresses the wetland and buffer impacts and mitigation associated with construction of the trails.

**11.3.2.1 Groundwater/Environmental Health.** The potential impacts to groundwater during construction and long-term would be negligible if stormwater runoff is directed in a similar manner as the existing conditions.

**11.3.2.2 Hydrology/Flooding/Water Quality.** The diversion of Bigelow Creek and West Ditch Creek will impact the hydrology of the wetlands through this corridor. Changes to Bigelow Creek will route the stream to flow easterly through Wetland N once it daylight to the Riverfront Development property after crossing the BNSF Railway tracks near Bigelow Street. This revision will result in a total shortening of the stream by a total of 5,100 feet. Stream channel creation (including tidal channels) proposed as part of the project mitigation totals 1,800 feet.

West Ditch Creek revisions will direct the stream through the North Wetland Complex. This results in a decrease of 1,500 feet, measured from 41<sup>st</sup> Street to the existing outfall. There is no creation of new channels as part of this revision since it will discharge to existing wetland channels.

The existing elevations of the wetlands along the corridor in these channels are between 8 and 9 feet. The river elevations due to tidal influences range between -2 and 12 feet. Given the contribution of runoff from the Landfill site and that these wetlands along the vacant railroad

corridor are influenced by the tidal fluctuations of the Snohomish River, sufficient hydrology will remain to sustain these wetlands.

Trails and boardwalks along the railroad corridor will be established at an elevation of approximately 15.0 feet and will be submerged during the large flooding events. The boardwalks will be constructed to maintain the hydrologic regime through the system.

**11.3.2.3 Stormwater.** The development of an asphalt trail through this corridor park will change the hydrology of the site by increasing the volume of runoff. The trails will not generate pollutants however, as there will be no motorized vehicles on the trails. The trails will be sloped toward the west to drain to the wetland channel and will include a connector trail and a combined trail/maintenance/emergency access road. While the latter type of trail will be designed for vehicle loads, it will not see the traffic volumes that would require water quality treatment.

The Public Amenities Master Plan has identified improvements in the North Wetland Complex for wetland mitigation (enhancement and creation), and the construction of bridges and boardwalk trails. A maintenance access will be constructed as a spur off of the trail in two locations to provide access to PUD transmission towers. The access will be constructed of a proprietary paving system that is rated for large vehicles but has a grass surface. The additional impervious surface created for the trails and boardwalks will have a minimal impact to the hydrology of the wetlands. These tidally influenced wetlands are not expected to be impacted hydrologically since they get much of their hydrology from the river. Given the relatively small footprint from the trails and boardwalks, the impacts were considered minimal and a wetland hydroperiod analysis was not performed.

### **11.3.3 Mitigation Measures**

**11.3.3.1 Groundwater/Environmental Health.** No mitigation measures are anticipated for groundwater. If contaminated soils are discovered, potential impacts to groundwater would be addressed by site-specific geotechnical reports to develop recommendations for the development. Likely mitigation efforts during both design and construction would include those elements identified in Section 5.7.4 of the DEIS.

**11.3.3.2 Hydrology/Flooding.** Most of the existing wetlands in the ditches adjacent to the old railroad bed will be filled as part of the construction of trails and access roads. The functions of these wetlands will be mitigated with the creation of new wetlands and the enhancement of existing wetlands that are to remain within the same corridor (see Chapter 12 of this Addendum for more detail).

Maintenance will be required to clean the trails of mud and debris after a flood event.

**11.3.3.3 Stormwater.** Construction of the trail will disturb the existing vegetation and soils and if not addressed could lead to release of sediments and an increase in turbidity in the adjacent streams. Erosion control BMPs will be implemented to protect the water resources. Typical measures include silt fence or compost berm, which acts as a barrier and slows runoff from the

site allowing sediments to settle out. Maintaining existing vegetation to act as a buffer is also effective.

Mitigation is not required for the increased runoff volumes, since the site discharges to the Snohomish River which is exempt from flow control. The impervious surfaces to be created with these elements of the Public Amenities will not be pollution generating and water quality treatment is not required. The combined trail/maintenance/emergency access road will have shoulders of an engineered reinforced grass paver section that will serve as aesthetic mitigation (making the trail appear narrower in width) as well as help to reduce runoff from the trail. While trail will be designed for vehicle loads, it will not see the volumes of traffic that would require water quality treatment (see the mitigation measures included in Chapter 10 of this Addendum).

### **11.3.4 Significant Unavoidable Adverse Impacts**

There are no anticipated significant unavoidable adverse impacts anticipated as a result of the implementation of the railroad corridor enhancements of the Public Amenities Master Plan on groundwater, surface water elevations, flooding, stormwater runoff, or water quality.

## **11.4 NORTH WETLAND COMPLEX ENHANCEMENTS**

### **11.4.1 Summary of EIS Analysis/Affected Environment**

Existing conditions and affected environment are described in

- Section 4.3.2 of the DEIS (surface water)
- Section 4.1.3 of the DEIS (groundwater)
- Appendix E of the DEIS (wetlands)
- Addendum No. 1 to the EIS (Wetland C restoration)

The North Wetland Complex consists of the majority of Wetland C, which is a flat-lying wetland area on the river floodplain. FEMA maps show this area within the floodway of the Snohomish River. It is located to the north of the Simpson Pad, and is bound to the west by the railroad corridor and to the east by the Snohomish River. A shallow aquifer underlies the site. Sources of hydrology to Wetland C include Bigelow Creek and the tidal influence from the Snohomish River.

Little industrial development occurred in this area compared to the rest of the Riverfront Development site. Historic development included a railroad spur, constructed on both a trestle and a fill prism along the riverfront adjacent to Wetland C. There was also a road along the wetland in the southern area, which provided access to several small buildings that are presently in the area where a PUD tower is located. These appear to be residences or similar shacks. DEIS Figure 2.1-4, a 1955 aerial photo, shows clearing in Wetland C that appears to be associated with construction of the PUD towers.

Addendum No. 1 to the EIS identified goals for the proposed restoration of Wetland C, which would provide mitigation for a proposed reduction of the regulated buffer and impacts to shoreline habitat associated with OliverMcMillan, LLC's proposal.

## 11.4.2 Impacts

The Public Amenities Master Plan identifies improvements that would implement the goals for restoration identified in Addendum No. 1 and provide compensatory wetland and stream mitigation for other elements of the Public Amenities Master Plan as required by City code. The Public Amenities Master Plan proposes to re-establish the historic connection between baseflows in the West Ditch Creek sub-basin and the central channel in Wetland C, to enhance tidal influence in Wetland C through the construction of a network of small tidal channels, and to enhance the existing wetland channel that bisects Wetland C. This would require excavation of channels up to 15 feet deep at the riverbank and with anticipated sideslopes on the order of 2H:1V (Horizontal:Vertical) or less.

The work would temporarily remove long standing beaver dams and widen portions of the central channel of Wetland C to increase tidal exchange within the wetland. Following the completion of the enhancement work the drainage through Wetland C would be named “Walton Creek”, after a lumber mill that once operated on the site. Additional habitat enhancements to Wetland C would be coordinated with the work in OliverMcMillan, LLC’s proposal, including removing pilings along the shoreline adjacent to the Wetland C complex.

Note that spur loop trails and boardwalks/bridges along the west side of Wetland C are in the railroad corridor element of the project.

**11.4.2.1 Groundwater/Environmental Health.** It is unlikely, but possible, that contaminated soils will be found during construction of the enhancements, particularly along the old rail corridor along the riverbank. Depending upon existing groundwater elevations, the excavation of the new stream channel and tributaries within the wetland may locally lower the shallow groundwater level close to the channels, and cause it to locally become more heavily influenced by the tidal fluctuation of the river.

**11.4.2.2 Hydrology/Flooding.** Restoring the West Ditch (Walton Creek) through Wetland C, and diverting Bigelow Creek to Wetland N will change the tributary areas of Wetland C and impact its hydrology.

**11.4.2.3 Stormwater.** No impacts to stormwater have been identified.

## 11.4.3 Mitigation Measures

**11.4.3.1 Groundwater/Environmental Health.** No mitigation measures are anticipated for groundwater. If isolated contaminated soils are discovered, however, mitigation measures as identified in the EIS would need to be followed. If there is contamination that exceeds cleanup levels, then stormwater controls may be needed to prevent spreading potentially contaminated soils and/or water-borne contaminants. Any areas found to be contaminated would need to be addressed as necessary by a Storm Water Pollution Prevention Plan, and a site-specific soil management plan. During construction, sufficient training and oversight of personnel may be necessary for recognition of potential unknown hazards.

**11.4.3.2 Hydrology/Flooding.** The Public Amenities Master Plan proposes to provide enhancements to Wetland C by restoring the historic connection between base flows in West Ditch Creek sub-basin and Wetland C. It also proposes to provide habitat enhancements by restoring the tidal influence with those areas of the wetland that exhibit low diversity.

**11.4.3.3 Stormwater.** None required.

#### **11.4.4 Significant Unavoidable Adverse Impacts**

There are no anticipated significant unavoidable adverse impacts anticipated as a result of the implementation of the North Wetland enhancements of the Public Amenities Master Plan on groundwater, surface water elevations, flooding, water quality of the system, or on the wetlands or Snohomish River from stormwater runoff.

### **11.5 WEST WETLAND COMPLEX ENHANCEMENTS**

#### **11.5.1 Summary of EIS Analysis/Affected Environment**

The existing conditions and affected environment are described in

- Section 4.3.2 of the FEIS (surface water)
- Section 4.1.3 of the DEIS (groundwater)
- DEIS Section 5.7.2.3 and Figure 5.7-1 (deed restrictions related to potential contamination in Wetland D)
- DEIS Appendix E (wetlands).

The West Wetland Complex consists only of Wetland D. Wetland D is a large cattail wetland on flat-lying alluvial soils situated between the BNSF Railway corridor and west edge of the Simpson Pad. A small buffer exists between the wetland and the development site that provides little in the way of function. A shallow aquifer underlies the site. The wetland was historically used as a settlement pond/discharge area for industrial uses (see 1967 photo in DEIS Section 2.1). Due to potential contamination, this area is subject to a restrictive covenant by the City, in which site disturbance is to be minimized.

#### **11.5.2 Impacts**

Proposed improvements include earthwork (filling) to construct soil hummocks within the wetlands. These areas will be planted with scrub-shrub or forested wetland vegetation to increase complexity and habitat diversity. Large woody debris and brush piles will also be added to improve habitat value. No excavation is proposed within the restrictive covenant area of Wetland D.

**11.5.2.1 Groundwater/Environmental Health.** The proposed work in West Wetland Complex will not adversely impact groundwater.

**11.5.2.2 Hydrology/Flooding.** The diversion of Bigelow Creek to flow through Wetland N (see Section 11.8) will reduce some surface water contribution to Wetland D, however this contribution is considered minimal. The dominant source of hydrology to the wetland is the

groundwater, which is affected by the Snohomish River. Other sources include surface runoff from the Simpson Pad and precipitation.

**11.5.2.3 Stormwater.** There is no proposed creation of pollution-generating surfaces within these wetland systems under the proposed Public Amenities Master Plan. Construction activities could result in erosion which could impact water quality.

### **11.5.3 Mitigation Measures**

**11.5.2.1 Groundwater/Environmental Health.** If dewatering is necessary during construction of hummocks, the discharge water would need to be contained and treated before release to surface waters, or otherwise discharged and recycled within the wetland limits.

**11.5.2.2 Hydrology/Flooding.** The Public Amenities Master Plan proposes only enhancement mitigation in the West Wetland Complex. Proposed mitigation measures to be installed during construction include temporary erosion control measures, such as soil stabilization measures over the topsoil hummocks, and measures at the base to prevent the migration of sediment. Construction should occur in the dry season.

**11.5.2.3 Stormwater.** Construction will result in minor disturbances to the existing vegetation and soils. The exposed surfaces of the imported topsoil will require surface stabilization BMPs to address possible erosion until establishment of the new plantings. Other erosion control measures may include silt fence or compost berm to slow runoff from the site allowing suspended solids to settle out. Maintaining existing vegetation to act as a buffer is also effective (see the mitigation measures included in Chapter 10).

### **11.5.4 Significant Unavoidable Adverse Impacts**

There are no significant unavoidable adverse impacts to groundwater, surface water elevations, flooding or water quality anticipated as a result of the implementation of the West Wetland Complex enhancements element of the Public Amenities Master Plan.

## **11.6 RIVERFRONT TRAIL, GROUP PICNIC, AND CONNECTIONS TO SIMPSON PAD**

### **11.6.1 Summary of EIS Analysis/Affected Environment**

The existing conditions and affected environment were described in

- Sections 4.3.2 of the FEIS (surface water)
- Section 4.1.3 of the DEIS (groundwater)
- Appendix E of the DEIS (wetlands).

This area, lying between the Simpson Pad and the Snohomish River, was formerly developed as part of the mill complex. Shallow groundwater at depths ranging from 4 to 9 feet was determined to be isolated from the river, in previous studies in the vicinity of the Simpson Pad site. No cleanup-level contaminants were found in this area during previous limited soil and groundwater investigations, as reported in the DEIS.

Wetlands E, F, G, H and I are referred to collectively as the East Wetland Complex. The topography of the wetlands bordering the west bank of the Snohomish River generally slopes from west to east at relatively flat gradients. The wetland areas lay in a depressional area bound by the existing trail and the Simpson Pad. Surface water runoff from the east sub-basin of the Simpson Pad site flows to this wetland complex.

### **11.6.2 Impacts**

The Public Amenities Master Plan proposes to widen the existing pedestrian trail that connects the Lowell Riverfront Park to the north end of the Simpson Pad. Connector trails will be constructed to provide connectivity between the development and the Riverfront Trail. Other amenities include a picnic shelter, picnic tables and barbeque grills situated along the riverfront. The alignment of these trails will be designed to avoid wetland impacts to the extent possible by routing through the buffer areas between the wetlands.

Trail widening and overlay will generally follow the existing alignment and grades. The existing elevations are generally between 15.0 and 15.5 feet. Near the northeast portion of the Simpson Pad, the existing alignment may be abandoned to avoid an unstable riverbank section and a new trail constructed inland, allowing the shoreline area to be restored.

Culverts will be installed beneath the connector trails that lead from the Riverfront Trail to the Simpson Pad to maintain hydrologic connectivity between the wetlands and allow surface runoff to drain out to the river. At the northern limits of this area, a culvert beneath a proposed maintenance access road for a PUD tower will maintain the surface water regime to flow to the Wetland C. At the southern limits of the wetlands, a culvert beneath the southerly connector trail will serve as an outfall to the restored Bigelow Creek channel.

The picnic shelter, picnic tables and grills will all be designed to withstand inundation during flooding events. Tables and grills will be anchored to a concrete pad.

Fill may be proposed within the floodway of the Snohomish River for shoreline restoration and stabilization. Current plans anticipate that it will primary be offset by cuts in the floodway. Any fill, in combination with associated cuts and bank work are not anticipated to significantly limit the movement of water or impact the flood elevation.

**11.6.2.1 Groundwater/Environmental Health.** Construction activities are not expected to encounter contaminated soils in this area. Changes to stormwater disposition could potentially affect shallow groundwater elevations, quality, and flow regime on a localized basis.

**11.6.2.2 Hydrology/Flooding.** The addition of impervious surfaces to the Riverfront Trail, Group Picnic and Connections to Simpson Pad area will have a minor change on the hydrology within this wetland complex given an increase in the runoff volumes associated with the increase in impervious surfaces. The increase in impervious area is small in relation to the adjacent wetland areas and will not have an adverse effect on the wetlands hydroperiods.

If any fill is proposed in the floodway for shoreline stabilization, a “No Rise” analysis may be required to document that the fill would have no adverse effects. An equivalent cut may be

required to mitigate for the fill. Any fill, in combination with associated cuts and bank work are not anticipated to significantly limit the movement of water or impact the flood elevation.

**11.6.2.3 Stormwater.** There is no proposed creation of pollution-generating surfaces within these wetland systems under the proposed Public Amenities Master Plan. Construction activities could result in erosion that has the potential to impact water quality in the wetlands and Snohomish River.

### **11.6.3 Mitigation Measures**

**11.6.3.1 Groundwater/Environmental Health.** Mitigation measures for groundwater impacts are included within those identified in DEIS Section 5.7.4. If there is contamination that exceeds cleanup levels, stormwater controls may be needed to prevent the spreading of potentially contaminated soils and/or water-borne contaminants. Any areas found to be contaminated would need to be addressed as necessary by a Storm Water Pollution Prevention Plan. Per the EIS, the design and construction should locate any stormwater conveyance systems down-gradient from areas believed to have previous soil/groundwater contamination to prevent ‘soaking’ of potentially hazardous or mobile soils. During construction, sufficient training and oversight of personnel may be necessary for recognition of potential unknown hazards.

**11.6.3.2 Hydrology/Flooding.** Trails have been aligned to minimize impacts to wetlands. Where the trails cross wetlands, boardwalks are proposed to avoid fill in the wetlands. Where boardwalks are not proposed, culverts are proposed to provide hydraulic connectivity throughout the wetland complex. Impacts to wetlands and buffers will be mitigated by the creation or enhancement of wetlands elsewhere in the project (see Chapter 12).

The group picnic shelter will be designed to withstand inundation of the river, and picnic tables and grills will be anchored to a concrete slab. Maintenance to clean facilities and trails of mud and debris will be required after flooding events.

Fill to overlay and widen the existing trail and to install new connector trails will be within the flood fringe, which is allowable per City of Everett Municipal Code.

For any fill proposed in the floodway, a backwater analysis must be completed and a “No Rise” analysis may be required to document that the fill would have no adverse effects. An equivalent cut may be required to mitigate for the fill. All fill in the floodway must be consistent with City floodplain regulations in EMC 19.30. The proposed fill and any structures in the floodway district must be approved as a Conditional Use per EMC 19.30 and meet the following standard: "No structures (temporary or permanent), fill (including fill for roads and levees), deposit, obstruction, storage of materials or equipment, or other uses, shall be allowed which, acting alone or in combination with existing or future uses, shall unduly affect the capacity of the floodway as determined by the city."

**11.6.3.3 Stormwater.** Construction of the trails will disturb the existing vegetation and soils and if not addressed could lead to release of sediments and an increase in turbidity in the adjacent streams. Erosion control BMPs will be implemented to protect the water resources. Typical measures include silt fence or compost berm which acts as a barrier and slows runoff

from the site allowing sediments to settle out. Existing vegetation along the riverbank will be maintained to act as a buffer.

Mitigation is not required for the increased runoff volumes, since the site discharges to the Snohomish River which is exempt from flow control. The Riverfront Trails will be designed to slope to drain toward the river. Runoff from connector trails will drain to the wetlands.

#### **11.6.4 Significant Unavoidable Adverse Impacts**

There are no anticipated significant unavoidable adverse impacts to groundwater, surface water elevation, flooding, or water quality as a result of the implementation of the Riverfront Trail, Group Picnic, and Connections to the Simpson Pad elements of the Public Amenities Master Plan.

### **11.7 LOWELL CROSSING**

#### **11.7.1 Summary of EIS Analysis/Affected Environment**

The existing conditions and affected environment were described in

- Section 4.3.2 of the FEIS (surface water)
- Section 4.1.3 of the DEIS(groundwater)
- Appendix E of the DEIS (wetlands).

This area lies upland of Wetlands N and D and is located at a junction of the existing trails that follow the railroad corridor, the at-grade crossing of the BNSF Railway tracks serving the north Lowell neighborhood, and a trail on a raised berm the leads to the Riverfront Trail. This berm separates Wetlands N and D. This area is on relatively flat-lying fill over alluvial soils, within an area that was part of the mill development. It is located between the West Wetland Complex and the South Wetland Complex, both of which are known to have contaminated soils. This includes petroleum-contaminated soils from aboveground storage tanks in the South Simpson Site. Runoff from the site sheet flows to the West Wetland Complex.

#### **11.7.2 Impacts**

A pedestrian connection is proposed for the north Lowell neighborhood via an overpass at the BNSF Railway crossing. On the Riverfront Development side of the crossing, a spiral ramp is proposed to provide an accessible path to the site. The ramp may be an elevated structure or constructed on fill. The ramp and eastern abutment of the structure sit within the 100-year floodplain of the Snohomish River.

**11.7.2.1 Groundwater/Environmental Health.** Construction of the pedestrian bridge over the railroad tracks would likely require pile foundations, whose installation has the potential to create hydraulic connections between contaminated media, if any at this location, and deeper groundwater receptors. Stormwater runoff from the proposed soil mound at the east end of the bridge for a spiral ramp could potentially spread contaminants if flow is directed to a contaminated area at levels above present conditions.

**11.7.2.2 Hydrology/Flooding.** The construction of the spiral ramp will not impact wetlands, although it will impact the Wetland D buffer. The added impervious surfaces for the trail and the bridge will result in an increase in runoff volume, however, given the area relative to the size of Wetland D there will be no adverse impact to the wetland hydroperiod.

**11.7.2.3 Stormwater.** No pollution-generating surfaces are proposed. Runoff from the pedestrian crossing structure will be collected and discharged at the base of the structure via a stabilized outfall. Aside from grading the site to provide a stabilized site, no other permanent engineered drainage facilities are proposed within this site.

The added impervious surfaces for the trail and the bridge will result in an increase in volume of runoff, however as they discharge to a tidally-influenced wetland, flow control mitigation is not required.

### **11.7.3 Mitigation Measures**

**11.7.3.1 Groundwater/Environmental Health.** Further site-specific soil and groundwater investigations would need to be conducted during design in order to determine if contaminants are present at the proposed crossing site, and if so, what measures could be taken to prevent further impacts to groundwater. In particular, stormwater controls and a site-specific soil management plan may be needed to prevent spreading of contaminants, if found. During construction, sufficient training and oversight of personnel may be necessary for recognition of potential unknown hazards.

**11.7.3.2 Hydrology/Flooding.** The City of Everett Municipal Code (EMC 19.30) allows for fill within the flood fringe, which is that area between the 100-year Floodway and the 100-year Floodplain. Buildings must have a finish floor elevation 2 feet above the 100-year flood elevation. The viaduct structure and fill for the ramp will be constructed within this flood fringe and therefore no mitigation is necessary.

If the spiral ramp is constructed on fill, there may be impacts on the flooding regime of the Snohomish River. During very large events, the river inundates the low-lying areas of Riverfront Development site. The area between the west edge of the Simpson Pad and the BNSF Railway corridor acts as a flow path for the river. Prior to final design and permitting of the improvement, a hydraulic analysis must be completed to evaluate potential impacts to the flow regime if any, and mitigation required to minimize impacts.

**11.7.3.3 Stormwater.** Construction of the crossing and ramp trail will disturb the existing vegetation and soils. If the ramp is constructed on fill, significant import of soils will be required. If not properly stabilized, the exposed soils could lead to release of sediments to Wetland D. Erosion control BMPs will be implemented to protect the water resources. Typical measures include hydroseeding slopes, silt fence or compost berm which acts as a barrier and slows runoff from the site allowing sediments to settle out. Where possible existing vegetation will be maintained to act as a buffer (see the mitigation measures included in Chapter 10).

#### **11.7.4 Significant Unavoidable Adverse Impacts**

There are no anticipated significant unavoidable adverse impacts to groundwater, surface water elevations, flooding or water quality as a result of the implementation of the Lowell Crossing element of the Public Amenities Master Plan.

### **11.8 BIGELOW CREEK AND SOUTH WETLAND COMPLEX ENHANCEMENTS**

#### **11.8.1 Summary of EIS Analysis/Affected Environment**

The existing conditions and affected environment were described in

- Section 4.3.2 of the FEIS (surface water)
- Section 4.1.3 of the DEIS(groundwater)
- Appendix E of the DEIS (wetlands).
- DEIS Figures 2.1-4 through 2.1-12 (aerials showing site history)

The South Wetland Complex consists of Wetlands N, O, P, Q, and R. It is located north of the WSDOT stormwater ponds, and south of Wetland D and the Simpson Pad.

The South Wetland Complex formerly contained a heavy concentration of buildings and infrastructure that formed the industrial base for the site. Previous investigations identified areas of petroleum-contaminated soils at former above-ground tank sites in the area. The area is in the 100-year floodplain of the Snohomish River. Previous studies indicate that a shallow aquifer exists below the site that is isolated from the river.

#### **11.8.2 Impacts**

Proposed improvements include re-routing of Bigelow Creek to an alignment consistent with its historic passage bisecting the South Wetland Complex. The Bigelow Creek realignment involves diverting the stream from its current alignment paralleling the railroad corridor before outfalling to Wetland C, to flow west through Wetland N. This includes the removal of the existing berm that divides Wetlands N and D, and excavation to create a tidally influenced stream channel. Near the river, the new channel will join two small existing drainages that convey flows to the river from portions of the South Wetland Complex. The existing drainages will be enhanced and two existing culverts will be removed and the streams daylighted. Most of the length of the new stream will be tidally influenced and will provide the opportunity to restore tidal influence to areas of wetlands in the South Wetland Complex. Relocating Bigelow Creek will require excavation of channels up to 15 feet deep at the riverbank, with side slopes of the order of 3H:1V (Horizontal:Vertical). A new trestle-like bridge will be constructed over the Bigelow Creek outfall to the river to maintain trail connectivity.

Proposed improvements also include a constructed wetland along the west edge of Wetland N between the BNSF Railway easement. The wetland will provide treatment to surface waters composed of flood flows and base flows from Bigelow Creek, which has been impacted by pre-existing development in the Lowell neighborhood upstream from the Everett Riverfront District. The constructed wetland will be designed to provide water quality benefits to Bigelow Creek for flows between base flows and approximately the 2-year event. Larger flows would bypass the treatment portion of the constructed wetland. The wetland has been addressed under grants received from the Department of Ecology. A discussion of the methodology for hydrologic

modeling of these flows and development of alternatives can be found in the *Bigelow Creek Water Quality Retrofit Feasibility Study* (ESA Adolfson, 2009).

There will be some fill of adjacent wetlands to isolate them hydrologically from the restored tidally influenced wetlands. Mitigation for these impacts will occur elsewhere in the project (see Chapter 12 Wetlands and Streams).

**11.8.2.1 Groundwater/Environmental Health.** Potential impacts to groundwater from the proposed excavations for re-establishment of the Bigelow Creek drainage system include localized lowering of the level of shallow groundwater, particularly in proximity to the new stream channels. Also the shallow groundwater would thus become more heavily influenced by the tidal fluctuation of the river. Unearthing of any contaminated media, if any within the proposed channels, could result in contamination of surface waters. Also, pile foundation installation for the proposed new pedestrian trestle-like bridge over Bigelow Creek for the Riverfront Trail could create potential hydraulic connections between contaminated media, if any at this location, and deeper groundwater receptors.

**11.8.2.2 Hydrology/Flooding.** The work included as part of these enhancements includes the improvements and realignment to Bigelow Creek, and installation of a fish passable culvert beneath a maintenance access road to the facility from Lowell Riverfront Park to the south. A constructed wetland located between Wetland N and the BNSF Railway railroad tracks will either be designed as an in-line flow-through water course, or an off-line facility where base flows will be directed to the main channel of Bigelow Creek and a percentage of the higher flows diverted to the constructed wetland to provide treatment to the equivalent volume of runoff from the roadway areas of the upstream basin for the water quality design event. Flow splitters and channels would be designed for fish passage in all instances, and hydraulic connectivity with Wetland D maintained. Construction of the wetland facility will result in direct impacts to Wetland N.

Other work includes the removal of two 48-inch-diameter corrugated metal pipe (CMP) culverts that drain beneath a berm to the west of the Riverfront Trail near the outfall to the river and the Riverfront Trail itself. The culverts will be replaced with a wood trestle-like bridge spanning the new stream outfall. As described in the Public Amenities Master Plan there will be some fill of adjacent wetlands to isolate them hydrologically from the restored tidally influenced wetlands. These impacts will be mitigated for elsewhere in the project.

**11.8.2.3 Stormwater.** No pollution generating surfaces are proposed as part of the Bigelow Creek and South Wetland Complex enhancements aside from the access road to the constructed wetland. This access, intended for maintenance, will grade to drain into the constructed wetland.

Construction of the enhancements will result in significant disturbance to the existing vegetation and soils, and has the potential for erosion and release of turbid water from the site (see the mitigation measures included in Chapter 10).

### **11.8.3 Mitigation Measures**

**11.8.3.1 Groundwater/Environmental Health.** Further site-specific soil and groundwater investigations need to be conducted during design in order to determine if contaminants are present within the proposed stream channels, and if so, what measures could be taken to prevent further impacts to groundwater, as described in the EIS. If there is contamination that exceeds cleanup levels, then stormwater controls may be needed to prevent the spreading of potentially contaminated soils and/or water-borne contaminants. Any areas found to be contaminated would need to be addressed as necessary by a Storm Water Pollution Prevention Plan, and a site-specific soil management plan. During construction, sufficient training and oversight of personnel may be necessary for recognition of potential unknown hazards. The site-specific soil and groundwater investigations must include recommended mitigation measures, if any, and must be submitted with Shoreline Permit applications.

**11.8.3.2 Hydrology/Flooding.** Mitigation for wetland fill as a result of construction of the water quality retrofit wetland will be addressed through the construction of compensatory wetland mitigation elsewhere in the Public Amenities project (see Chapter 12 Streams and Wetlands).

Construction for the realignment of Bigelow Creek will result in impacts to Wetland N, but are designed to improve the overall function of the wetland system. Erosion control BMPs will be implemented to protect the water resources. These measures may include excavation of the channel in the dry season, soil stabilization, and maintaining existing vegetation to the extent practical. The existing culvert could be dammed to prevent discharge to the river until the site is stabilized. Diversion of Bigelow Creek should not occur until the new channel has been excavated, the channel stabilized and vegetation installed.

**11.8.3.3 Stormwater.** Erosion control BMPs will be implemented to protect water resources. Typical measures will include stabilized construction entrances, and silt fence or compost berm to slow runoff from the site allowing sediments to settle out. The large quantities of excavation and water present on the site will likely require additional measures beyond the traditional, including the capture of turbid water from the site to be retained on site in a temporary pond or storage tank prior to release to the river. Maintaining existing vegetation, stabilizing the exposed surfaces and constructed channels, and establishing existing plantings will also mitigate against erosion (see the mitigation measures included in Chapter 10).

### **11.8.4 Significant Unavoidable Adverse Impacts**

There are no anticipated significant unavoidable adverse impacts to groundwater, surface water elevations, flooding, or water quality as a result of the implementation of the Bigelow Creek and South Wetland Complex enhancements element of the Public Amenities Master Plan.

## **11.9 LOWELL RIVERFRONT PARK IMPROVEMENTS**

### **11.9.1 Summary of EIS Analysis/Affected Environment**

The existing conditions and affected environment were described in

- Section 4.3.2 of the FEIS (surface water)

- Section 4.1.3 of the DEIS (groundwater).
- DEIS Figures 2.1-4 through 2.1-12 (historical aerial photos)

Lowell Riverfront Park is an existing park located at the southern limits of the Riverfront Development project in a former industrial site. The park lies upon a flat-lying filled area on the outside bend of the river, in the floodplain of the Snohomish River. Existing improvements include a graveled parking lot, and a trail running north south along the bank of the river. Picnic tables and benches are located along the length of the trail.

At the east edge of the gravel lot, the site slopes toward the river. The riverbank in this area shows signs of significant undercutting and erosion. The riverbank section is near-vertical to being undermined in the upper several feet, with concrete, steel, and wood demolition debris exposed beneath and within sandy silt fill. Several small slumps of the riverbank are evident. Large riprap has been placed along the bank to forestall further erosion. Barrier plantings have also been placed in areas to keep people away from the edge of unstable slopes. The existing elevations of the site are generally between 17 and 20 feet (NAVD 88), and the site floods during high events. A shallow aquifer exists below the site.

### **11.9.2 Impacts**

The Public Amenities Master Plan calls for stabilizing the riverbank, with some portions shored, and others regraded. Additional improvements include construction of an interpretive center or multi-purpose building with restrooms, paving of the parking lot, construction of a turnaround, reconstruction and widening of the Riverfront Trail, landscaping and construction of concrete sidewalks to the street. The emergency access/trail to the Simpson Pad begins adjacent to the proposed multi-purpose/interpretive building. The site will be graded such that the parking and multi-purpose/interpretive building finish floor elevation is 2 feet above the 100-year flood elevation of 21.2 feet.

Fill may be proposed within the floodway of the Snohomish River for shoreline restoration and stabilization. Current plans anticipate that it will primary be offset by cuts in the floodway. Any fill, in combination with associated cuts and bank work are not anticipated to significantly limit the movement of water or impact the flood elevation.

**11.9.2.1 Groundwater/Environmental Health.** Contaminated soils may be encountered during the selective regrading of the riverbank. If excavations encounter contaminated media, the exposure of such could result in runoff that contaminates the groundwater. Also, stormwater infiltration, if concentrated into contaminated soils, could result in the spread of contaminants to the groundwater.

**11.9.2.2 Hydrology/Flooding.** Surface waters could be impacted by bank stabilization measures along the riverbank and construction within the flood fringe of the Snohomish River. Fill is likely to occur within the floodway of the Snohomish River for shoreline restoration Any fill, in combination with associated cuts and bank work are not anticipated to significantly limit the movement of water or impact the flood elevation.

The site will be filled to construct the parking and multi-purpose building/interpretive center 2 feet above the 100-year flood elevation. The quantity of fill is approximately 4,400 cubic yards.

**11.9.2.3 Stormwater.** Although the park area has been cleared and surfaced as a gravel parking lot, the development of the park will pose a minor change to the hydrology of the site. The addition of impervious surfaces created by a new building, and a paved parking surface and sidewalks will result in an increase in the volume of runoff. Vehicle traffic to the site will generate pollutants that can be carried from the site with the stormwater runoff.

### **11.9.3 Mitigation Measures**

**11.9.3.1 Groundwater/Environmental Health.** If excavations for riverbank regrading and stabilization encounter contaminated media, the material would either need to be fully removed or capped in order to not increase the amount of potentially contaminated runoff that could impact groundwater.

At proposed locations for stormwater infiltration bioswales or rain gardens, detailed subsurface investigations would need to be conducted in order to determine the presence or absence of contaminants. If there is contamination that exceeds cleanup levels, stormwater infiltration would not be feasible in contaminated areas. However, the creation of impervious surfaces such as roof structures and paved parking areas associated with the proposed new facilities will reduce the amount of stormwater infiltration or soil soaking on site. If there is contamination that exceeds cleanup levels, then stormwater controls may be needed for proposed earthwork areas to prevent the spreading of potentially contaminated soils and/or water-borne contaminants. Any areas found to be contaminated would need to be addressed as necessary by a Storm Water Pollution Prevention Plan, and a site-specific soil management plan. During construction, sufficient training and oversight of personnel may be necessary for recognition of potential unknown hazards.

**11.9.3.2 Hydrology/Flooding.** Mitigation for potential flooding impacts to the Lowell Riverfront Park includes filling the site such that the finish floor elevation is above the 100-year flood elevation of the river. The proposed park improvements are located within the flood fringe, which is that area between the 100-year Floodway and the limits of the 100-year Floodplain. The City of Everett Municipal Code (EMC 19.30) allows for fill within these limits, and buildings must have a finish floor elevation 2 feet above the 100-year flood elevation.

For any fill proposed in the floodway, a backwater analysis must be completed and a "No Rise" analysis may be required to document that the fill would have no adverse effects. An equivalent cut may be required to mitigate for the fill. All fill in the floodway must be consistent with City floodplain regulations in EMC 19.30. The proposed fill and any structures in the floodway district must be approved as a Conditional Use per EMC 19.30 and meet the following standard: "No structures (temporary or permanent), fill (including fill for roads and levees), deposit, obstruction, storage of materials or equipment, or other uses, shall be allowed which, acting alone or in combination with existing or future uses, shall unduly affect the capacity of the floodway as determined by the city."

**11.9.3.3 Stormwater.** Mitigation is not required for the increased runoff volumes, since the site discharges to the Snohomish River which is exempt from flow control. The stormwater runoff will receive basic treatment in accordance with the Ecology requirements for the parking lot surfaces. Sidewalks and buildings are not considered pollution generating. The conceptual plan for on-site water quality treatment is to construct biofiltration swales for treatment. The swales are proposed adjacent to the parking on the west edge and along the east edge within the area between the parking lot and trail.

Pending additional geotechnical exploration to identify the site-specific subsurface conditions of the soils and groundwater, these facilities will be designed to either infiltrate through the existing soils or be dispersed as sheet flow over the lawn area before discharging to the river.

Construction of the site will disturb the existing vegetation and soils and if not addressed could lead to release of sediments and an increase in turbidity in the adjacent streams. Erosion control BMPs will be implemented to protect the water resources. Typical measures include silt fence or compost berm which acts as a barrier and slows runoff from the site allowing sediments to settle out. Where possible existing vegetation will be maintained to act as a buffer (see the mitigation measures included in Chapter 10).

#### **11.9.4 Significant Unavoidable Adverse Impacts**

There are no anticipated significant unavoidable adverse impacts to groundwater, surface water elevations, flooding, or water quality as a result of the implementation of the Bigelow Creek and South Wetland Complex enhancements element of the Public Amenities Master Plan.

## CHAPTER 12. WETLANDS AND STREAMS

Wetlands and streams in the project vicinity have been studied several times to support various planning processes. Past publications that address wetlands and streams include:

- *Wetland Delineation, Tire Fire Property, Snohomish County, Washington* (Pentec Environmental, Inc., 1994)
- *Snohomish Riverfront Properties at Bigelow Creek: Final Conceptual Enhancement Programs Prepared for the City of Everett* (The Watershed Company, 2005)
- *Sensitive Areas Study Snohomish Riverfront Properties Prepared for OliverMcMillan c/o Perteet, Inc.* (The Watershed Company, 2006)
- *Wetland and Stream Compilation and Review: Everett Riverfront Development, Everett, Washington* (Revised) (GeoEngineers, 2008)
- *Everett Riverfront Redevelopment Group 3- Public Amenities, Park, and Wetland and Habitat Enhancement Project: Wetland and Stream Determination Report* (ESA Adolfson, 2008)

Wetland boundaries, identifiers, and ratings in this work are consistent with the wetlands reports prepared by ESA Adolfson (2008) and GeoEngineers (2008). These two sources are also used to describe the wetland and stream systems as they best represent current site conditions and regulatory requirements.

### 12.1 WETLANDS

The Riverfront Development site is surrounded by extensive wetlands within the floodplain of the Snohomish River. This portion of the Snohomish River valley is within Ecological Management Unit (EMU) 1 of the Snohomish Estuary Wetland Integration Plan (City of Everett et al., 1997). Twenty-two wetlands were identified in the project vicinity (Table 4). Wetland locations are shown in Figure 15.

Wetlands J, K, and M are small, hydrologically isolated wetlands surrounded by the railroad grade and dike berms. The wetlands are located in ditches with steeply-sloped edges. Wetlands J and M contain emergent vegetation classes, and Wetland K contains scrub/shrub and forested vegetation classes. The buffers associated with these wetlands are essentially non-existent due to human disturbance and the existing railroad grades.

Wetlands L, X, and Y are relatively small, linear, ditched wetlands surrounded by railroad grades and/or diked berms. Wetlands L and X are hydrologically isolated, while Wetland Y has a partial connection to the Snohomish River along its eastern boundary. Wetlands L and Y contain forest vegetation classes, and Wetland X contains forest, shrub/shrub, and emergent vegetation classes. All of these wetlands are within the floodplain of the Snohomish River, and receive overbank flow during significant flood events. The buffers associated with these wetlands are highly disturbed due to human activity and the existing railroad grades.

Wetlands T, U, V, and W are long, linear, ditched wetlands associated with the construction of adjacent railroad grades. Wetland T currently serves as a conveyance channel for a portion of

the streamflow in Bigelow Creek. Wetlands U, V, and W have hydrologic connections to the Snohomish River through culverts and Stream CC. Wetlands T, U, V, and W contain emergent vegetation classes. The buffers associated with these wetlands are highly disturbed from historic land use, filling, and construction of the adjacent railroad grades.

Wetland C, also referred to as “North Wetland Complex” and “Simpson Category I Wetlands,” is a large wetland complex located to the north of the Simpson Pad. Due to its large size, diverse habitat, seasonal and permanent open water habitat, association with Bigelow Creek, and the tidal influence of the Snohomish River, Wetland C is considered a “Significant Biological Area of Local Importance” by the City. Wetland C contains forested, scrub/shrub, emergent and aquatic bed vegetation classes. In general, the existing Wetland C buffer is highly disturbed by fill, and construction and maintenance of the adjacent railroad grades.

Wetland D, referred to as the “West Wetland Complex,” is a large wetland complex located to the west of the Simpson Pad. The wetland is connected to the Snohomish River via Stream AA. Wetland C contains forested, scrub/shrub, emergent and aquatic bed vegetation classes. In general, the existing Wetland D buffer is significantly impacted from historical land use, fill, presence of access roads, and construction and maintenance of the adjacent railroad grades.

**Table 4: Wetland Summary**

Wetland Name	Size (onsite acres)	Size (total acres)	Cowardin Vegetation Classes	HGM Class	Western Washington Wetland Rating Functions (points)			Ecology Rating <sup>2</sup>	Everett Rating	Buffer Width (feet)	
					Water Quality	Hydro-logic	Habitat		33.D440	Standard <sup>3</sup>	Simpson Pad <sup>4</sup>
C	21.608	21.608	PFO, PSS, PEM, PAB	Riverine	28	18	25	I	I	100	75
D	16.123	16.293	PFO, PSS, PEM, PAB	Depressional	22	20	24	II	I	100	50
E	0.419	0.419	PFO	Depressional & Riverine <sup>1</sup>	16	14	17	III	III	50	50
F	1.100	1.100	PFO	Depressional & Riverine <sup>1</sup>	16	14	17	III	II	75	50
G	0.007	0.007	PFO	Depressional & Riverine <sup>1</sup>	20	14	11	III	III	50	50
H	0.173	0.173	PFO	Depressional & Riverine <sup>1</sup>	16	14	16	III	III	50	50
I	2.713	2.713	PFO	Depressional & Riverine <sup>1</sup>	16	14	22	II	II	75	50
J	0.050	0.195	PEM	Depressional	16	8	6	III	III	50	N/A
K	0.084	0.219	PFO, PSS	Depressional	16	8	7	III	III	50	N/A
L	0.110	0.110	PFO	Depressional & Riverine <sup>1</sup>	18	10	14	III	III	50	N/A
M	0.016	0.016	PEM	Depressional	16	8	7	III	III	50	N/A
N	3.941	6.962	PFO, PSS, PEM	Depressional	26	24	20	I	II	75	N/A
O	0.039	0.039	PEM	Riverine	10	10	14	III	III	50	N/A
P	0.006	0.006	PEM	Depressional	16	8	9	III	III	50	N/A
Q	0.076	0.076	PFO	Depressional	16	8	12	III	III	50	N/A

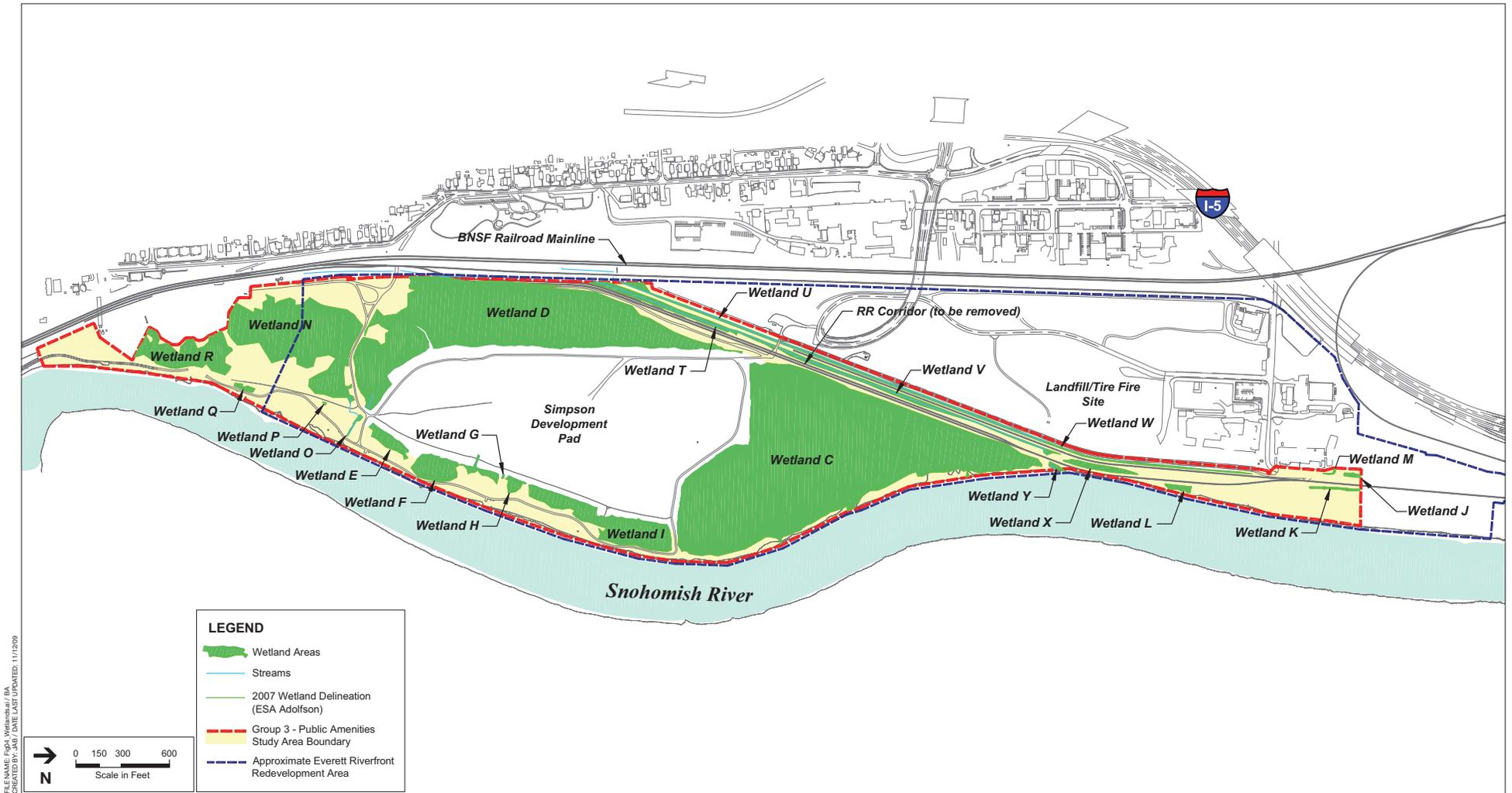
Wetland Name	Size (onsite acres)	Size (total acres)	Cowardin Vegetation Classes	HGM Class	Western Washington Wetland Rating Functions (points)			Ecology Rating <sup>2</sup>	Everett Rating	Buffer Width (feet)	
					Water Quality	Hydro-logic	Habitat			33.D440	Standard <sup>3</sup>
R	2.081	2.081	PFO, PSS, PEM	Depressional	16	12	19	III	II	75	N/A
T	1.313	0.722	PEM	Depressional & Riverine <sup>1</sup>	16	8	8	III	II	75	N/A
U	0.501	0.359	PEM	Depressional & Riverine <sup>1</sup>	22	16	10	III	III	50	N/A
V	0.730	0.730	PEM	Depressional & Riverine <sup>1</sup>	16	8	8	III	III	50	N/A
W	0.861	0.861	PEM	Depressional & Riverine <sup>1</sup>	16	8	8	III	III	50	N/A
X	0.293	0.293	PFO, PSS, PEM	Depressional & Riverine <sup>1</sup>	16	14	12	III	III	50	N/A
Y	0.078	0.078	PFO	Riverine	20	16	17	II	III	50	N/A

<sup>1</sup> Considered depressional for the purpose of completing the *Washington State Wetland Rating System for Western Washington* form (Hruby, 2004).

<sup>2</sup> *Washington State Wetland Rating System for Western Washington* (Hruby, 2004).

<sup>3</sup> Buffer widths were assigned based upon Everett Municipal Code Title 19, Chapter 33D

<sup>4</sup> Buffer widths pertaining to the Simpson Pad are the minimums allowed by the City's SMP and the Settlement Agreement between The Tulalip Tribes and the City of Everett (Tulalip Agreement).



SOURCE: Portet, 2008.

Everett Riverfront . 207255  
**Figure 15**  
 Wetlands within the Study Area  
 Everett, Washington

Wetlands E, F, G, H, and I, referred to as the “East Wetland Complex,” are a series of small- to moderate-sized wetlands located east of the Simpson Pad. All of the wetlands are isolated and separated from each other and the Snohomish River by a series of berms and/or raised trails. The wetlands all contain forested habitat. In general, the existing buffers of Wetlands E through I are narrow and significantly impacted by historical land use and disturbance associated with fill.

Wetlands N, O, P, Q, and R, referred to as the “South Wetland Complex,” are a series of relatively small- to moderate-sized wetlands located to the south of the Simpson Pad. These wetlands are hydrologically connected to the Snohomish River via drainage channels and/or Stream BB. Wetlands O and P contain emergent habitat; Wetland Q contains scrub/shrub habitat; and Wetlands N and R contain emergent, scrub/shrub, and forest habitat. In general, the buffers of Wetlands N through R are significantly impacted from historical land use, presence of access roads and paved trails, and construction and maintenance of the adjacent railroad grades.

## 12.2 STREAMS

Several streams flow through the Riverfront Development site and adjacent areas. These streams drain from urbanized areas and generally flow from west to east, discharging to the Snohomish River. These streams are currently routed through highly modified ditches associated with current and former railroad lines. These streams are highly modified, but they do support fish and are within the Shoreline jurisdiction from the Snohomish River, so are Type I streams under Everett Municipal Code. Five jurisdictional streams were identified within the project vicinity (Table 5, Figure 16).

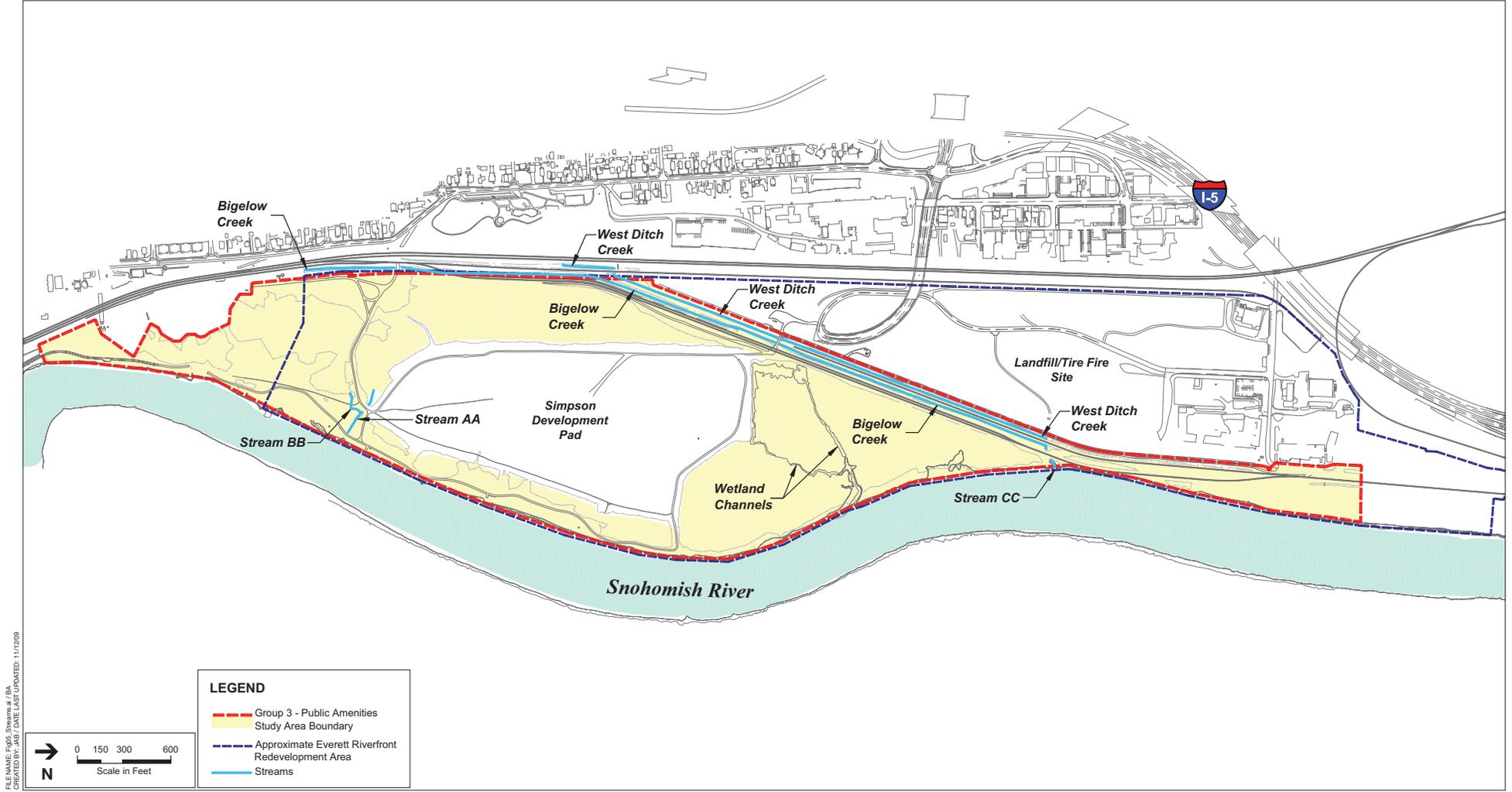
**Table 5: Stream Summary**

Stream Name	Total Length in Project Area (linear feet)	Stream Rating <sup>1</sup>	Standard Buffer Width (feet)
Stream AA	262	I	100
Stream BB	164	I	100
Stream CC / Bigelow Creek	5,100	I	100
West Ditch	3,300	I	100
Snohomish River	11,000	I	100

<sup>1</sup> Everett Municipal Code Title 19, Chapter 33D, Section 480 (EMC 19.33D.480) and Section 490 (EMC 19.33D.490).

Stream AA is a linear, ditched channel that begins at the mouth of a culvert that discharges water from Wetland D. The stream passes through a second culvert before entering the Snohomish River. Stream AA is tidally influenced. The stream buffer is somewhat degraded, due to the construction of adjacent access roads and paved walking trails.

Stream BB is a small channel that discharges water from Wetland N and is a tributary to Stream AA. Stream BB is tidally influenced. The buffer of Stream BB is degraded due to past land uses and dominance by invasive plants.



SOURCE: Portteet, 2008.

Everett Riverfront . 207255  
**Figure 16**  
 Streams within the Study Area  
 Everett, Washington

Bigelow Creek is a linear, channelized stream that enters the Riverfront Development site through a culvert near the southwestern corner. Bigelow Creek flows through a series of incised railroad ditch wetlands before draining into the Snohomish River near Wetland Y, in a segment referred to as “Stream CC.” Stream CC is tidally influenced. The buffer of Bigelow Creek/Stream CC is in poor condition, primarily due to construction and maintenance of the adjacent railroad grades.

West Ditch Creek is a linear, channelized stream that is connected to Bigelow Creek through a culvert beneath a railroad grade. West Ditch Creek then drains into Stream CC and subsequently into the Snohomish River. The stream buffer is in poor condition, due to construction and maintenance of the railroad grades.

The project area is bordered on the east by the Snohomish River from north of River Mile (RM) 5 to RM 7. In the project area, the river consists of steeply sloped and diked banks, with areas of riprap revetment and occasional pilings. The extensive man-made earthen dikes have been in place since the mid-1930s and confine the limits and influence of the river. The water surface elevation of the river within the project area rises and falls with the flow and ebb of the tides. In general, the existing buffer of the Snohomish River in the project vicinity is highly degraded, with existing structures, debris piles, impervious surfaces, and scattered patches of native trees and shrubs. The overall lack of riparian vegetation and species diversity, in conjunction with historic and present human activities, has resulted in limited recruitment of large woody debris in the river.

## **12.3 3-ACRE PARK**

### **12.3.1 Summary of Previous Documentation/EIS Analysis**

The 3-Acre Park was referenced as a public amenity to be provided by the City within the 2007 DEIS, but no specific analysis was developed for that effort. Several of the general impacts to wetlands and streams referenced in the 2007 DEIS, such as increased human activity and construction noise, are applicable to the 3-Acre Park project.

Impacts to Wetlands M, J, and W near the proposed 3-Acre Park were described in the 2007 DEIS. These wetlands would be filled to allow for the construction of an access road from Pacific Avenue.

### **12.3.2 Affected Environment**

Wetlands and streams in the vicinity of the 3-Acre Park include the Snohomish River and Wetlands M, K, J, and W. Impacts to plants and animals are discussed in Chapter 13.

Overall, topography in the vicinity is flat with localized areas of historical fill storage and ditching. Typical ground elevations in the area range between 12 and 14 feet North American Vertical Datum 1988 (NAVD 88). The area drops off abruptly into the main channel of the Snohomish River. Several areas of bank instability have been identified along this section of the riverbank. Currently, the bank is partially stabilized with wooden piers. The majority of the 3-Acre Park site is located within the 100-year (1 percent annual chance) floodplain of the

Snohomish River. This location has been significantly altered through past land uses, most recently including equipment and material storage.

### **12.3.3 Impacts**

Impacts to wetlands and streams associated with the 3-Acre Park include: (1) fill of a portion of Wetland K, (2) potential erosion and sedimentation during construction of the park facilities, (3) impacts to the Snohomish River associated with the proposed dock and boat launch, (4) disturbance to the Snohomish riverbank associated with bank stabilization measures, (5) potential water quality impacts if floodwaters engage the proposed 36-stall parking lot, and (6) disturbance to wetland and stream buffers.

Direct impacts would occur to 0.043 acre of Wetland K. As described above, this area has been significantly disturbed during past use of the site, and the wetland is contained within an excavated ditch that extends north of the 3-Acre Park site. Bank stabilization measures would occur over approximately 425 linear feet of the west bank of the Snohomish River.

### **12.3.4 Mitigation Measures**

Wetlands and streams on the Riverfront Development site are regulated at the federal, state, and local levels of jurisdiction. For the City of Everett, wetland and stream impacts would be regulated pursuant to the City's Shoreline Master Program (SMP) codified in Title 19 Chapter 33D of the City's Zoning Code. Mitigation standards for areas within the City's SMP jurisdiction are based on the Snohomish Estuary Wetland Integration Plan (SEWIP) (City of Everett et al., 1997).

Mitigation to compensate for adverse impacts to wetlands would be provided as part of the project as required by City code and based on the mitigation standards stated in the 1997 SEWIP. To the extent possible, mitigation would be constructed in advance of or concurrent with associated impacts. Site-specific mitigation to compensate for impacts to Wetland K would be provided through the creation of new tidal or palustrine wetland in a manner consistent with the 1997 SEWIP. Wetland creation would occur in upland areas adjoining existing wetlands in the railroad corridor enhancements area, Riverfront Trail improvements corridor, or South Wetland Complex.

The 1997 SEWIP requires compensation at no less than a 1:1 ratio of wetland fill to creation area. Additional mitigation to compensate for indirect impacts to wetland habitat function, if indicated by the 1997 SEWIP assessment, would be provided through enhancement or restoration of degraded wetland areas within the Railroad Corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.

Specific mitigation measures for the 3-Acre Park include:

1. Compensation for lost wetland functions through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Compensatory mitigation would be accomplished through wetland creation and enhancement of existing degraded wetlands within the Riverfront Development site.

2. Compensatory mitigation for adverse wetland impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.
3. The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department and other agencies with jurisdiction in advance of acquiring construction permits for proposed improvements. The mitigation plan would address the hierarchy of mitigation sequencing identified in Section 19.33D.040 of the City's Zoning Code, WAC 173-26-201, and WAC 197-11-768, as applicable. The mitigation plan would include an assessment of the functions of impacted wetlands, including an evaluation of anticipated changes or alterations in the hydroperiod of remaining wetlands or wetlands associated with proposed mitigation areas. The mitigation plan would identify site-specific performance criteria used to measure the success of the wetland mitigation program, identify both short-term and long-term maintenance requirements, and identify adaptive management measures that would ensure the success of the mitigation program. The wetland mitigation plan would also include a detailed mitigation monitoring plan based on a minimum five-year post-construction monitoring period.
4. Upland riparian area (0.4 acre) along the Snohomish River would be enhanced.
5. Implementation of construction Best Management Practices (BMPs) would avoid and minimize erosion and sedimentation during construction. These measures should be consistent with the most recent Washington State Department of Ecology Stormwater Management Manual for Western Washington.
6. Treated lumber would be avoided in construction of the dock and boat launch.
7. The dock and boat launch would be designed to withstand anticipated water elevations and velocities.
8. Parking areas would be minimized within the 100-year (1 percent annual chance) floodplain.
9. Plantings of native riparian shrub and tree species would be incorporated into any bank stabilization measures installed along the Snohomish River.

### **12.3.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts on wetlands or streams are anticipated as a result of the 3-Acre Park element of the Public Amenities Master Plan.

## **12.4 RAILROAD CORRIDOR ENHANCEMENTS**

### **12.4.1 Summary of Previous Documentation/EIS Analysis**

Some project elements of the railroad corridor enhancements project were referenced as a public amenity within the 2007 DEIS, but no specific analysis was developed for that effort. Impacts to

wetlands and streams for the entire Riverfront Development project were discussed in the DEIS, but not specifically for the railroad corridor enhancements project element.

The Biological Assessment and Habitat Management Plan (Geoengineers, 2007) appendix of the 2007 DEIS describes potential mitigation actions for streams and wetlands within the railroad corridor enhancements area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS.

The current proposal has been modified from the conceptual restoration program presented in the 2007 DEIS (Watershed Company, 2005). This proposal would realign Bigelow Creek to flow directly to the Snohomish River via the South Wetland Complex, and therefore the stream would not flow through the railroad corridor improvements. Streamflow would still enter this area from a portion of the West Ditch Creek drainage area.

#### **12.4.2 Affected Environment**

The railroad corridor enhancement project area is located west of the Simpson Pad. Existing wetlands and streams in the vicinity of the railroad corridor enhancement project element include Bigelow Creek, West Ditch Creek, and Wetlands L and T through Y, which are described in Sections 12.1 and 12.2.

Topography in the vicinity is flat, with two parallel railroad grades separated by ditched wetlands/streams. In the western portion of the railroad corridor, the topography slopes up toward the Landfill site (now capped). Elevations in the area range between approximately 8 and 14 feet NAVD 88. The majority of this area is within the 100-year (1 percent annual chance) floodplain of the Snohomish River.

This location has been significantly altered by past land uses, including railroad grade installation and maintenance. Drainage from the railroad corridor enhancements area is generally directed to the Snohomish River via a 30-inch metal pipe near RM 5.6. Drainage in this area is subject to backwater from the Snohomish River during high tide/flow conditions.

#### **12.4.3 Impacts**

The railroad corridor enhancement element would result in direct impacts to Wetlands W, V, and C totaling 1.293 acres (Table 6). Impacts would occur as both direct wetland fill and through covering of the wetland by boardwalks (MacLeod Reckord, 2009). Impacts to wetland buffers would also occur throughout the railroad corridor enhancements area. Both Bigelow Creek and the West Ditch Creek would be realigned, impacting 6,600 linear feet of stream and resulting in a net decrease in stream length of approximately 4,800 linear feet.

This element includes a trail and boardwalk system, portions of which would extend into the outer edge of Wetland C. Boardwalks and/or small spans would be installed to prevent impacts to overall water circulation within Wetland C. These areas are intended to provide focused public access to the wetland system. These access points are proposed for a short loop in the southern portion, and a longer sinuous path along the western edge of the wetland (MacLeod Reckord, 2009).

**Table 6: Wetland Impacts within the Railroad Corridor Enhancements Project Element**

Wetland/Stream	Total Area (acres)	Fill Impact Area (acres)	Boardwalk Coverage Impact Area (acres)
Wetland V	0.730	0.138	0.020
Wetland W	0.861	0.736	0
Wetland C	21.608	0.292	0.107

Bigelow Creek would be realigned from its current location in a railroad ditch to a new channel through the South Wetland Complex that more closely approximates a natural condition (see Section 13.7. This would result in a net loss of stream linear footage through the railroad corridor enhancements area. Approximately 5,100 linear feet of Bigelow Creek and 1,500 linear feet of the West Ditch Creek would be lost, and replaced with approximately 1,800 linear feet of new Bigelow Creek channel within the South Wetland Complex. A portion of the drainage from the former West Ditch Creek would also be realigned from its current railroad ditch location, to a new channel through Wetland C.

#### **12.4.4 Mitigation Measures**

Mitigation to compensate for adverse impacts to wetlands would be provided as part of the project as required by City code and based on the mitigation standards stated in the 1997 SEWIP. Please see Section 12.3.4 for additional discussion of the regulatory mitigation requirements.

Specific mitigation measures for the railroad corridor enhancements element include:

1. Compensation for lost wetland functions would occur through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Mitigation would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.
2. Compensatory mitigation for adverse wetland and stream impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.
3. The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department and other agencies with jurisdiction in advance of acquiring construction permits for proposed improvements.
4. Trails within Wetland C would be installed in a manner that does not impact overall water circulation within the wetland.
5. Human access into the wetland and stream systems would be limited through the use of upland viewing areas and appropriate signage.

## **12.4.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts on wetlands or streams are anticipated as a result of the railroad corridor enhancements element of the Public Amenities Master Plan.

## **12.5 NORTH WETLAND COMPLEX ENHANCEMENTS**

### **12.5.1 Summary of Previous Documentation/EIS Analysis**

The wetland enhancement work in the North Wetland Complex is addressed in the 2007 DEIS and 2008 FEIS, and is more specifically discussed within the conceptual restoration program (Watershed Company, 2005). Wetland enhancement concepts have been further developed and now include reduced disturbance that is targeted toward the recreation of a freshwater tidally influenced wetland system.

### **12.5.2 Affected Environment**

The enhancement work under this element of the Public Amenities Master Plan would be focused within Wetland C. Elevations within Wetland C range between 8 and 12 feet NAVD 88, with smaller pools and channels having bottom elevations that likely extend to 4 feet NAVD 88 or lower. Wetland C is surrounded on the landward side by an abrupt topographic break at the toe of historic fill slopes. A paved trail runs along the south side of Wetland C. The west and north sides of the wetland extend to former railroad berms that extend up to around elevation 14 feet NAVD 88. On the river side of Wetland C, the wetland is partially separated from the river and most water levels by higher areas that range from 12 to 15 feet NAVD 88. Much of the riverbank is forested or dominated by shrubs. Wetland C has been designated “Significant Biological Area of Local Importance” by the City (ESA Adolfson, 2008, GeoEngineers 2008). Wetland C is entirely within the 100-year (1 percent annual chance) floodplain and is also within the mapped floodway shown on the most recent FEMA Flood Insurance Rate Maps (FIRMs) for the area. This suggests that there could be significant overbank conveyance of water through Wetland C during flood events.

### **12.5.3 Impacts**

Impacts to the North Wetland Complex would occur during construction of a portion of the trail system, wetland enhancement elements, and the adjacent OliverMcMillan wetland restoration project west of Wetland C. Impacts from trail construction are discussed in both the railroad corridor enhancements and Riverfront Trail sections above, and impacts from the OliverMcMillan wetland restoration are discussed in the 2007 DEIS and 2008 FEIS.

Specific impacts anticipated for the North Wetland Complex as a result of the public amenities include:

1. Temporary construction impacts to Wetland C and the Snohomish River during construction of distributary channels. Proposed work in the North Wetland Complex would result in temporary disturbance to approximately 16.5 acres of wetland regulated by the City, and would add approximately 3,400 linear feet of stream channel.

2. Indirect impacts to wetland hydroperiod resulting from adjustments to site drainage, including rerouting of Bigelow Creek, adjustments to the West Ditch Creek drainage, addition of stormwater generated on the Simpson Pad, and alteration of existing channels within Wetland C.

There is the potential for erosion and sedimentation during the earthwork necessary to excavate the channels and river connections. There is also the potential for long-term channel scour at the excavated inlets. This potential is dependent on local hydraulic conditions, which will be investigated during restoration design.

Several adjustments to the contributing area of Wetland C would occur as part of the overall Riverfront Development project. These modifications include:

- Removing any flow from Bigelow Creek from Wetland C.
- Directing a portion of flows from the West Ditch Creek to Wetland C.
- Directing infiltrated stormwater from the Simpson Pad to Wetland C via a proposed raingarden system.

While these modifications would change the amount of surface water being directed to Wetland C, it does not appear that these changes would result in any adverse impacts to the wetland. Water levels in Wetland C are influenced by a number of factors, and the primary sources appear to be high groundwater due to proximity of the Snohomish River, inundation from the river, direct precipitation, and the discharge of groundwater. All of these factors would remain in place after the proposed project is completed. The distributary channel element of the wetland enhancement is intended to increase tidal and riverine influence within the wetland system.

#### **12.5.4 Mitigation Measures**

The primary enhancement measure proposed for Wetland C is the excavation of a more extensive network of distributary channels totaling approximately 3,400 linear feet. Channels exist on the site, but have likely been created and/or altered as a part of past land uses. The connections between these channels and the Snohomish River are limited to two openings. The proposed distributary channel network would increase the overall length of small channels within Wetland C, and increase the number of connection points to the Snohomish River. These enhancement measures are intended to allow for greater tidal influence and distribution, as well as exchange of tidal water throughout the area. The enhancement would also include dense plantings of native tree and shrub species to reduce the dominance of nonnative reed canarygrass. Enhancements would include work along approximately 750 feet of the west bank of the Snohomish River.

These channels and new connections to the river would be excavated using low-ground-pressure equipment, likely with the use of mats to allow for access. Excavation spoils would be placed within the wetland to create low (approximately 1 foot tall) mounds or berms that would be densely planted with native species of trees and shrubs.

These enhancement measures would be designed consistent with the overall management objectives of the 1997 SEWIP.

Specific mitigation measures for the North Wetland Complex element include:

1. Compensation for lost wetland functions would occur through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Mitigation would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.
2. Compensatory mitigation for adverse wetland and stream impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.
3. The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department and other agencies with jurisdiction in advance of acquiring construction permits for proposed improvements.
4. All channel construction would take place during the dry season.
5. Appropriate BMPs (e.g., coir logs surrounding placed berms/hummocks) would be used to avoid erosion and sedimentation.

### **12.5.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts on wetlands or streams are anticipated as a result of the North Wetland Complex enhancements element of the Public Amenities Master Plan.

## **12.6 WEST WETLAND COMPLEX ENHANCEMENTS**

### **12.6.1 Summary of Previous Documentation/EIS Analysis**

The West Wetland Complex includes only Wetland D, which has been described in past site documentation (e.g., ESA Adolfson, 2008, GeoEngineers, 2008). No enhancement work within Wetland D or its buffer was analyzed in the 2007 DEIS or 2008 FEIS.

### **12.6.2 Affected Environment**

Wetland D is located within an elongated depression that runs along the west side of the Simpson Pad. Wetland D is dominated by open water and emergent vegetation communities. Dominant plant species are common cattail and reed canarygrass. The buffer of Wetland D includes a thin strip of trees or shrubs along most of the wetland perimeter.

Wetland D's hydroperiod (typical patterns of water extent, depth, and fluctuation) is likely driven by groundwater discharge and direct precipitation supported by the overall high groundwater levels determined by the Snohomish River. Wetland D currently receives surface flow from Bigelow Creek and from portions of the Simpson Pad. Flow from Bigelow Creek appears to split at the south side of Wetland D, and some of the flow likely bypasses the wetland

to the west via the stream channel between former railroad tracks. Wetland D is within the 100-year floodplain of the Snohomish River, and flow from the river can reach Wetland D as overbank flow from the south side of the Simpson Pad and via backwater from Wetland C. Significant portions of Wetland D are included within a restrictive covenant that prohibits excavation greater than 1 foot, and restricts any increases in flow velocity through the area (Macleod Reckord, 2009).

### **12.6.3 Impacts**

Impacts to Wetland D would include temporary construction impacts during installation of the enhancement elements and indirect impacts from the redirection of Bigelow Creek.

Enhancement work within Wetland D is anticipated to consist of limited placement of topsoil and/or compost amendments and dense plantings of native tree and shrub species. The limited fill placement would require temporary construction access that would likely consist of low-ground-pressure excavating equipment and the use of mats.

Bigelow Creek would be realigned to flow directly to the Snohomish River south of the Simpson Pad. This realignment would result in a reduction of surface water inflow from Bigelow Creek to Wetland D. Currently, most surface flow within Bigelow Creek appears to bypass Wetland D. Therefore, this inflow appears to be a minor component of the overall water supply to Wetland D, and the project is not anticipated to result in adverse impacts. Direct impacts to the southern portion of Wetland D would occur with the installation of the fire access road, discussed in Section 12.9.

### **12.6.4 Mitigation Measures**

Proposed mitigation measures for the West Wetland Complex include:

1. Install hummocks during the dry season.
2. Avoid any alterations that would focus flow of water, including during flood stage in the Snohomish River, through Wetland D.
3. Install appropriate measures (e.g., coir logs) surrounding hummocks to avoid erosion and sedimentation.
4. Continue monitoring water levels in Wetland D on at least a monthly basis for a minimum of five years to confirm that wetland hydrology persists.

### **12.6.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts on wetlands or streams are anticipated as a result of the West Wetland Complex enhancements element of the Public Amenities Master Plan.

## **12.7 RIVERFRONT TRAIL, GROUP PICNIC, AND CONNECTIONS TO SIMPSON PAD**

### **12.7.1 Summary of Previous Documentation/EIS Analysis**

There is limited analysis of impacts associated with this project element in previous work. Trail improvements to be installed by the City are mentioned, but not analyzed, in the 2007 DEIS (GeoEngineers, 2007). Wetlands and streams in the vicinity of this project element were identified, delineated, and classified in past documents (GeoEngineers 2008; ESA Adolfson, 2008).

### **12.7.2 Affected Environment**

This element of the Public Amenities Master Plan covers the area generally between the Simpson Pad and the Snohomish River, extending south toward Lowell Riverfront Park. This area includes several depressional wetlands (Wetlands E, F, G, H, and I) located in a low area between the Simpson Pad and the existing paved trail. These five wetlands occur at similar elevations (around 14 to 15 feet NAVD 88) and are typically separated from one another by small topographic rises and/or berms. These areas are typically disconnected from the Snohomish River but are inundated during flood events.

These wetlands are forested. Water supply to the wetlands is likely supported by high groundwater resulting from proximity to the Snohomish River, surface drainage from the Simpson Pad, and inundation from the river.

This area includes approximately 2,440 linear feet of the west bank of the Snohomish River. Portions of this bank are currently eroding, threatening the existing paved trail (GeoEngineers, 2007).

### **12.7.3 Impacts**

There would be direct impacts to wetlands as a result of new trail connections from the Simpson Pad to the Riverfront Trail. A Snohomish County PUD access road would also be extended from the Riverfront Trail to the existing PUD transmission tower at the southern end of Wetland C. Culverts will be installed beneath the connector trails that lead from the Riverfront Trail to the Simpson Pad as well as beneath the Snohomish County PUD access road to maintain wetland connectivity. Wetland fill resulting from these elements would total 0.181 acre, with an additional 0.001 acre of wetland cover impact resulting from installation of a boardwalk (Table 7). Impacts to wetlands have been avoided and minimized by locating the connecting trails either between existing wetlands, or through a narrow section of existing wetland. All work within this element would occur within wetland buffer and buffer from the Snohomish River.

**Table 7: Wetland Impacts within the Riverfront Trail Project Element**

Wetland/Stream	Total Area (acres)	Fill Impact Area (acres)	Boardwalk Coverage Impact Area (acres)
Wetland F	1.100	0.023	0.001
Wetland I	2.713	0.087	0
Wetland H	0.173	0.001	0
Wetland Q	0.076	0.017	0
Wetland R	2.081	0.007	0
Wetland C	21.608	0.046	0

Impacts to the Snohomish riverbank would result from disturbance to install bank stabilization measures. These areas are anticipated to consist of bioengineered solutions, combined with realigning the Riverfront Trail farther (west) from the active channel.

#### **12.7.4 Mitigation Measures**

Mitigation to compensate for adverse impacts to wetlands would be provided as required by City code and based on the mitigation standards stated in the 1997 SEWIP. Refer to Section 12.3.4 for additional discussion of the regulatory mitigation requirements.

Specific mitigation measures for the Riverfront Trail element include:

1. Compensation for lost wetland functions would occur through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Mitigation would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.
2. Compensatory mitigation for adverse wetland and stream impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.
3. The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department and other agencies with jurisdiction in advance of acquiring construction permits for proposed improvements.
4. Trail construction would occur during the dry season, using appropriate BMPs to avoid erosion and sedimentation.
5. Plantings of native riparian shrub and tree species would be incorporated into any bank stabilization measures installed along the Snohomish River.
6. Culverts will be installed beneath the connector trails that lead from the Riverfront Trail to the Simpson Pad to maintain hydrologic connectivity between the wetlands. At the northern limits of this area, a culvert beneath a proposed maintenance access road for a PUD tower will maintain the surface water regime to flow to the Wetland C, which will serve as the outfall for these wetlands to the Snohomish River.

### **12.7.5 Significant Unavoidable Adverse Impacts**

Following implementation of mitigation measures described above, no significant unavoidable adverse impacts to wetlands or streams are anticipated as a result of the Riverfront Trail, group picnic, and connections to the Simpson Pad elements of the Public Amenities Master Plan.

## **12.8 LOWELL CROSSING**

### **12.8.1 Summary of Previous Documentation/EIS Analysis**

Limited discussion of the Lowell Crossing was included in the past documentation. The access point is referenced in the 2007 DEIS (Figure 2.2-1 in that document) but no specific analysis is included. The Lowell Crossing is described in the Public Amenities Master Plan (MacLeod Reckord, 2009). The crossing would consist of an overhead crossing over the BNSF Railway mainline and a mounded spiral walkway at a constant grade on the east side of the tracks.

### **12.8.2 Affected Environment**

The Lowell Crossing would replace the existing at-grade crossing near 2<sup>nd</sup> Avenue and Junction Avenue, near the southwest corner of the Simpson Pad. This area is near the existing alignment of Bigelow Creek, Wetland Z, and at the south end of Wetland D.

### **12.8.3 Impacts**

No direct impacts to wetlands or streams would result from the Lowell Crossing element, assuming that the Lowell Crossing is built after the realignment of Bigelow Creek.

### **12.8.4 Mitigation Measures**

Buffer enhancements (e.g., weed removal and native plantings) would be installed between the proposed trail and Wetland D.

### **12.8.5 Significant Unavoidable Adverse Impacts**

No significant unavoidable adverse impacts to wetlands or streams are anticipated as a result of the Lowell Crossing element of the Public Amenities Master Plan.

## **12.9 BIGELOW CREEK AND SOUTH WETLAND COMPLEX ENHANCEMENTS**

### **12.9.1 Summary of Previous Documentation/EIS Analysis**

Modifications to Bigelow Creek were presented and discussed in the 2007 DEIS and 2008 FEIS (GeoEngineers, 2007 and 2008). These were also elements of the overall restoration program for the Riverfront Development (Watershed Company, 2005). The current proposal for Bigelow Creek has been revised from these past documents. In the 2008 FEIS, it was anticipated that Bigelow Creek would be directed north to flow through Wetland C. The current proposal would route Bigelow Creek to the Snohomish River via the South Wetland Complex. This change is an

attempt to reduce the potential for impacts to water quality in Bigelow Creek that may occur if the stream were to flow through sediments that have been exposed to past land uses.

### **12.9.2 Affected Environment**

The South Wetland Complex includes Wetlands Z, N, P, O, T, and the southern portion of Wetland D, as well as the reach of Bigelow Creek after it passes under the BNSF Railway railroad tracks until it flows into Wetland T. Wetlands associated with Bigelow Creek (Z and T) are highly degraded, confined within ditches, and dominated by nonnative invasive plants.

Wetlands R, Q, P, N, O, and D are depressional wetlands located on previously disturbed areas within the Snohomish River floodplain. The majority of these areas are impounded by artificial berms, some of which now serve as trails or access roads. The primary sources of hydrology for these wetlands appear to be groundwater discharge and direct precipitation, combined with high groundwater levels associated with the Snohomish River. Surface water can enter these wetlands from Bigelow Creek during significant storm events, and/or from the Snohomish River during high flow periods, but these inundation periods are relatively short. Wetland Q is connected to the Snohomish River via a 48-inch CMP.

### **12.9.3 Impacts**

Proposed work within the South Wetland Complex would result in wetland fill of 1.72 acres and coverage of 0.001 acre. Bank stabilization along the Snohomish River would disturb approximately 300 linear feet of channel bank. Impacts to wetlands and streams within the South Wetland Complex include:

1. Permanent impacts from the installation of a constructed wetland and associated berm.
2. Permanent impacts from the installation of a fire access road.
3. A trestle bridge that would result in new coverage over wetlands and streams at the proposed mouth of Bigelow Creek.
4. Temporary construction impacts resulting from wetland and stream restoration activities.
5. Construction and installation of trails, fire access road, and constructed treatment wetland within wetland buffers.

There would be direct impacts to Wetlands N and D as a result of the construction of the constructed treatment wetland and realigned Bigelow Creek channel. The constructed wetland is proposed to retrofit water quality treatment for flows from the highly urbanized contributing basin. To provide sufficient volume to provide a base level of water quality treatment, the constructed wetland and associated berms would result in direct, permanent impacts to a 1.008-acre portion of Wetland N (Table 8).

A fire access road is proposed to allow emergency access to the southwest corner of the Simpson Pad. This fire access road and a portion of the treatment wetland would be constructed in Wetland D, resulting in 0.712 acre of wetland fill. Impacts in this area have been minimized by aligning the fire access road to match an existing upland berm that extends into Wetland D. The

fire access road would bisect Wetland D and therefore has the potential to impact water circulation, especially during periods of inundation from the Snohomish River.

**Table 8: Wetland Impacts within the South Wetland Complex**

Wetland/Stream	Total Area (acres)	Fill Impact Area (acres)	Coverage Impact Area (acres)
Wetland D	16.293	0.712	0
Wetland N	6.962	1.008	0
Wetland O	0.039	0	0.001 <sup>1</sup>

<sup>1</sup>Coverage due to trestle bridge

The area due east of the proposed constructed wetland would be restored to a functioning wetland complex. This area includes all or part of Wetlands N, O, P, Q and D. These wetlands are currently disconnected from each other by artificial berms, and from the Snohomish River by a berm with a culvert. The proposed restoration would include removing berms, adding soil amendments, and installing dense plantings of native tree, shrub, and emergent species. The South Wetland Complex would have a restored, free-flowing connection to the Snohomish River spanned by a bridge. The bridge would allow for trail circulation and maintenance access. The realigned Bigelow Creek would flow through the restored South Wetland Complex, so channel excavation would be necessary to provide sufficient conveyance capacity.

The amount of excavation that would occur as part of this restoration has yet to be determined, but would likely range from minimal material removal to allow for Bigelow Creek to flow through the area, to a more substantial excavation that would result in an intertidal area. The largest excavation likely within the South Wetland Complex would result in a bottom elevation near 0.0 feet NAVD 88 to allow for significant tidal influence.

Temporary construction impacts to the South Wetland Complex would include, at a minimum:

- Construction access and associated noise.
- Vegetation disturbance, including tree removal.
- Potential for erosion and sedimentation.

If the larger intertidal project were to occur, impacts would be the same, but the quantity of excavation and vegetation removal would be greater.

#### **12.9.4 Mitigation Measures**

Mitigation to compensate for adverse impacts to wetlands would be provided as required by City code and based on the mitigation standards stated in the 1997 SEWIP. Please see Section 12.3.4 for additional discussion of the regulatory mitigation requirements.

The restoration and enhancement measures would result in temporary impacts to 4.2 acres of existing wetland. These measures would be designed to improve the functions within the overall wetland system.

Specific mitigation measures for the South Wetland Complex element include:

1. Compensation for lost wetland functions would occur through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Mitigation would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.
2. Compensatory mitigation for adverse wetland and stream impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.
3. The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department and other agencies with jurisdiction in advance of acquiring construction permits for proposed improvements.
4. Excavations for the wetland restoration would be done during the dry season. The culvert to the river would be blocked before any excavation within the wetland system. The earthen plug would be removed after earthwork is complete and initial soil stabilization measures installed.
5. The large quantities of excavation and water present on the site will likely require additional measures beyond the traditional, including the capture of turbid water from the site to be retained on site in a temporary pond or storage tank prior to release to the river.
6. Plantings of native riparian shrub and tree species would be incorporated into any bank stabilization measures installed along the Snohomish River.
7. A small span or culverts would be provided under the fire access road to retain flood flow conveyance in the area.
8. Standard BMPs would be used to avoid and minimize erosion and sedimentation.

### **12.9.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to streams or wetlands are anticipated as a result of the Bigelow Creek and South Wetland Complex enhancements element of the Public Amenities Master Plan.

## **12.10 LOWELL RIVERFRONT PARK IMPROVEMENTS**

### **12.10.1 Summary of Previous Documentation/EIS Analysis**

The Lowell Riverfront Park is located outside of the project area discussed within the 2007 DEIS.

### **12.10.2 Affected Environment**

Lowell Riverfront Park includes approximately 850 linear feet of the west bank of the Snohomish River at the 90-degree bend in the river channel. Most riparian vegetation has been removed in this area, and there are several areas of erosion and bank instability (GeoEngineers, 2007). No wetlands have been mapped in this area, and most of the park consists of a gravel parking area, paved trail, and lawn.

Elevations within the park range from around 8 feet NAVD 88 on the riverbank to between 20 and 22 feet NAVD 88 on the west side of the parking lot. The base flood elevation in this area is between 17 and 18 feet NAVD 88, so much of the park is within the 100-year floodplain.

### **12.10.3 Impacts**

Impacts to the Snohomish River resulting from the Lowell Riverfront Park improvements consist of disturbance to construct bank stabilization measures. Bank stabilization measures are currently being developed and could consist of bioengineering, sheet pile, rock riprap, or some combination of these techniques.

### **12.10.4 Mitigation Measures**

Mitigation measures for the Lowell Riverfront Park improvements include:

1. Focus and limit human access via trails and viewpoints.
2. Incorporate plantings of native riparian shrub and tree species into any bank stabilization measures installed along the Snohomish River.
3. Include native tree and shrub plantings between the trail and riverbank.

### **12.10.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to streams or wetlands are anticipated as a result of the Lowell Riverfront Park improvements element of the Public Amenities Master Plan.

## CHAPTER 13. PLANTS AND ANIMALS

Plants and animals in the project vicinity have been studied several times to support various planning processes. The information in this chapter is a summary of existing studies, which include:

- *Biological Assessment and Habitat Management Plan* (Geoengineers, 2007)
- *Draft Environmental Impact Statement: Everett Riverfront Redevelopment* (City of Everett, 2007)
- *Final Environmental Impact Statement: Everett Riverfront Redevelopment* (City of Everett, 2008)
- *Everett Riverfront Redevelopment Group 3- Public Amenities, Park, and Wetland and Habitat Enhancement Project: Wetland and Stream Determination Report* (ESA Adolfson, 2008)
- *Wetland and Stream Compilation and Review: Everett Riverfront Development, Everett, Washington* (Revised) (GeoEngineers, 2008)
- *Priority Habitats and Species Database* (Washington State Department of Fish and Wildlife, 2007)
- Walking surveys conducted by ESA Adolfson between 2007 and 2009
- Analysis and digitizing of existing vegetation communities using aerial photos, conducted by ESA Adolfson in 2009

ESA Adolfson also prepared a Biological Assessment and Habitat Management Plan Supplement for the Public Amenities Master Plan. The Supplement is incorporated by reference in this Addendum.

### 13.1 3-ACRE PARK

#### 13.1.1 Summary of Previous Documentation/EIS Analysis

The 3-Acre Park was referenced as a public amenity within the 2007 DEIS (City of Everett, 2007), but no specific analysis was developed for that effort. Regardless, several of the general impacts to plants and animals referenced in the 2007 DEIS are applicable to the 3-Acre Park project. Development of the 3-Acre Park would result in both negative impacts (e.g., loss of habitat by the development of amenities such as buildings, roads, etc.) and positive impacts (i.e., restoration actions).

#### 13.1.2 Affected Environment

Existing habitat areas in the direct vicinity of the 3-Acre Park include Wetland K, and a portion of the left (west) bank of the Snohomish River and associated riparian vegetation (Figures 15 and 16). These aquatic habitats are described in Chapter 12 Wetlands and Streams.

The 3-Acre Park location has been significantly altered by land uses that include equipment storage and construction debris disposal. The majority of the site is unvegetated. Wetland K is a small, ditched wetland that contains scrub/shrub and forested habitat. In general, Wetland K has

limited habitat opportunities due to a lack of vegetative complexity, minimal habitat structure, and lack of connectivity to other habitats.

Adjacent to the Snohomish River, the existing strip of riparian vegetation is narrow (approximately 10 feet wide) and dominated by Himalayan blackberry. The riverbank is steep and artificially armored with wood piles, cribbing, sheet metal, and riprap. The Snohomish River provides habitat for several priority salmonid species, which are discussed in the Biological Assessment supplement (ESA Adolfson, 2009b).

A variety of priority and non-priority birds utilize habitat both within and adjacent to the 3-Acre Park site, including songbirds, gulls, raptors, ducks, and herons. The site also likely provides habitat for non-priority small mammals such as coyote, cottontail rabbit, mice, and rats. There are no documented occurrences of priority mammal, reptile, or amphibian species in the 3-Acre Park project vicinity. In addition to the priority salmonid species described in the Biological Assessment supplement, the Snohomish River provides habitat for a variety of non-priority fish species. A full list of animal species observed within the project vicinity is found in the 2008 FEIS (City of Everett, 2008).

### **13.1.3 Impacts**

A portion of Wetland K (0.043 acre) would be filled to construct the 3-Acre Park, and approximately 0.3 acre of existing shrub-dominated Snohomish River buffer area would be cleared. Approximately 125 linear feet of riverbank would be hardened, as described in Chapter 10 Earth/Geology/Soils.

Park construction activities may result in short-term displacement of some fish and wildlife species. The increased human presence and usage of the developed park may discourage some animal species from utilizing habitat areas in the vicinity. However, given the existing, degraded nature of the site, permanent impacts to fish and wildlife would likely be minimal.

In general, the project activities within the park site would result in a net positive impact to plants and animals. Invasive plant species and construction debris would be removed. The proposed park plan calls for enhancing approximately 0.4 acre of Snohomish River buffer with native trees and shrub plantings, which would significantly increase overall plant cover and diversity at the site. In addition, approximately 300 linear feet of the riverbank would be restored and/or enhanced.

The proposed improvement in vegetation structure and diversity at the 3-Acre Park site would likely result in increased wildlife diversity and usage, and would enhance wildlife movement along the Snohomish River. The removal of artificial bank stabilization materials and the associated streambank restoration would result in improved fish habitat along the Snohomish River shoreline.

### **13.1.4 Mitigation Measures**

The Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describes potential mitigation actions for plants and animals within the 3-Acre Park area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS.

Wetlands and streams on the Riverfront Development site are regulated at federal, state, and local levels of jurisdiction. For the City of Everett, wetland and stream impacts would be regulated pursuant to the City's Shoreline Master Program (SMP) codified in Title 19 Chapter 33D of the City's Zoning Code. Mitigation standards for areas within the City's SMP jurisdiction are based on the Snohomish Estuary Wetland Integration Plan (SEWIP) (City of Everett et al., 1997).

Mitigation to compensate for adverse impacts to wetlands would be provided as part of the project as required by City code and based on the mitigation standards stated in the 1997 SEWIP. To the extent possible, mitigation would be constructed in advance of or concurrent with associated impacts. Site-specific mitigation to compensate for impacts to wetlands would be provided through the creation of new tidal or palustrine wetland in a manner consistent with the 1997 SEWIP. Wetland creation would occur in upland areas adjoining existing wetlands in the railroad corridor enhancements area, Riverfront Trail improvements corridor, or South Wetland Complex.

The 1997 SEWIP generally requires compensation at no less than a 1:1 ratio of wetland fill to creation area. Additional mitigation to compensate for indirect impacts to wetland habitat function, if indicated by the 1997 SEWIP assessment, would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.

Specific wetland mitigation measures for the 3-Acre Park project include:

- Compensation for lost wetland functions through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Compensatory mitigation would be accomplished through wetland creation and enhancement of existing degraded wetlands within the Riverfront Development site.
- Compensatory mitigation for adverse wetland impacts would be constructed in advance of, or concurrent with, project elements that affect wetlands.
- The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department in advance of acquiring construction permits for proposed improvements. The mitigation plan would address the hierarchy of mitigation sequencing identified in Section 19.33D.040 of the City's Zoning Code, WAC 173-26-201, and WAC 197-11-768, as applicable. The mitigation plan would include an assessment of the functions of impacted wetlands, including an evaluation of anticipated changes or alterations in the hydroperiod of remaining wetlands or wetlands associated with proposed mitigation areas. The mitigation plan would identify site-specific performance criteria used to measure the success of the wetland mitigation program, identify both short-term and long-term maintenance requirements, and identify adaptive management measures to ensure the success of the mitigation program. The wetland mitigation plan would also include a detailed mitigation monitoring plan based on a minimum five-year post-construction monitoring period.

Additional plants and animals mitigation measures that would be implemented for the 3-Acre Park project include:

- No trees of significant value would be removed from the project site.
- Tree and shrub plantings in the park would be a diverse mix of native species that are known to naturally occur in the project vicinity. Approximately 0.4 acres of the project area would be planted.
- During clearing, grading, and construction activities, appropriate sediment and erosion control Best Management Practices (BMPs) would be utilized.
- As described in the Biological Assessment supplement, in-water work would be limited to approximately June 1 through October 31 in order to minimize impacts to anadromous salmonid species.

### **13.1.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts on plants or animals are anticipated as a result of the 3-Acre Park element of the Public Amenities Master Plan.

## **13.2 RAILROAD CORRIDOR ENHANCEMENTS**

### **13.2.1 Summary of Previous Documentation/EIS Analysis**

Some elements of the railroad corridor enhancements project were referenced as a public amenity within the 2007 DEIS, but no specific analysis was undertaken for that effort. However, several of the general impacts to plants and animals referenced in the 2007 DEIS are applicable to the railroad corridor enhancements project. Construction activities would result in both negative impacts (e.g., short-term displacement of wildlife during construction) and positive impacts (i.e., restoration actions).

### **13.2.2 Affected Environment**

Existing habitat areas in the direct vicinity of the railroad corridor enhancement project area include Bigelow Creek, West Ditch Creek, and Wetlands C, L, and T through Y (Figures 15 and 16). These aquatic habitats are described in Chapter 12 Wetlands and Streams.

The railroad corridor enhancements project area has been significantly altered by railroad grade installation and maintenance. Most of the uplands within the project area are unvegetated railroad grades. The wetlands within the railroad corridor are linear ditches, lacking vegetative complexity and habitat structure. Most of the wetland habitat is emergent, with some forested and scrub/shrub patches. Bigelow Creek and West Ditch Creek are linear, channelized streams that flow through the existing wetlands.

A variety of priority and non-priority birds utilize habitat both within and adjacent to the railroad corridor enhancements site, including songbirds, gulls, raptors, ducks, and herons. The site also likely provides habitat for non-priority small mammals such as coyote, cottontail rabbit, mice,

and rats. There are no documented occurrences of priority mammal, reptile, or amphibian species in the railroad corridor enhancements project vicinity. Juvenile priority salmonids have been observed in Bigelow Creek and West Ditch Creek, as described in the Biological Assessment supplement. In addition, the streams likely provide habitat for small, non-priority fish, such as sculpin and stickleback. A full list of animal species observed within the project vicinity is found in the 2008 FEIS.

### **13.2.3 Impacts**

The proposed railroad corridor enhancements element would impact Wetlands C, V, and W through filling or covering with boardwalk trails (Table 6). Proposed work in the railroad corridor would impact 1.293 acre of wetland regulated by the City, and 6,600 linear feet of stream. The majority of the wetland fill areas consist of forested and scrub/shrub habitat. Bigelow Creek would be realigned from its current location in a railroad ditch to a new channel through Wetland D, which more closely approximates a natural condition. The overall length of Bigelow Creek would be reduced from approximately 5,100 linear feet to 1,800 linear feet. West Ditch Creek would also be realigned from its current railroad ditch location, to a new channel through Wetland C. Approximately 1,500 linear feet of West Ditch Creek would be removed, and the flow would be routed into both existing and proposal tidal channels in Wetland C.

The proposed stream relocations, construction of trails, access roads, and other elements of the railroad corridor enhancements project may result in short-term displacement of some wildlife species. The increased human presence and usage of the proposed trail system may discourage some animal species from utilizing habitat areas in the vicinity. However, given the existing degraded conditions of the railroad corridor, permanent impacts to fish and wildlife would likely be minimal.

In general, the railroad corridor enhancements project would result in a significant, net positive impact to plants and animals. All areas outside of the proposed trails and utility access areas would be planted with native shrubs. These enhancements would be designed to result in a net increase of plant cover and diversity. The proposed improvement in vegetation structure and diversity at the railroad corridor enhancements site would likely result in increased wildlife diversity and usage, and would enhance wildlife movement to and from adjacent habitats. Given that Bigelow and West Ditch Creeks are currently constrained within linear railroad ditches, the proposed realignment and restoration of these streams would result in a net increase of stream functions and habitat quality.

### **13.2.4 Mitigation Measures**

The Biological Assessment and Habitat Management Plan (Geoengineers, 2007) and Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describe potential mitigation actions for plants and animals within the railroad corridor enhancements project area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS.

Mitigation to compensate for adverse impacts to wetlands would be provided as required by City code and based on the mitigation standards stated in the 1997 SEWIP. Please see Section 13.1.4 for additional discussion of the regulatory mitigation requirements.

Specific mitigation measures for the railroad corridor enhancements project element include:

- Compensation for lost wetland functions would occur through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Mitigation would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.
- Compensatory mitigation for adverse wetland and stream impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.
- The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department in advance of acquiring construction permits for proposed improvements.

Additional plants and animals mitigation measures that would be implemented for the railroad corridor enhancements project include:

- No trees of significant value would be removed from the project site.
- All areas outside of the trail system and utility access limits would be restored with a diverse assemblage of native shrubs, as described in the 2007 DEIS and Chapter 12 of this Addendum. The selected shrubs would provide food and cover for wildlife.
- Habitat mitigation performed by the City within the project area would be coordinated with the adjacent mitigation work to be performed by the developer.
- During clearing, grading, and construction activities, appropriate sediment and erosion control BMPs would be utilized.
- As described in the Biological Assessment supplement, in-water work within Bigelow and West Ditch Creeks would be limited to approximately June 1 through October 31 in order to minimize impacts to anadromous salmonid species.

### **13.2.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts on plants or animals are anticipated as a result of the railroad corridor enhancements element of the Public Amenities Master Plan.

## **13.3 NORTH WETLAND COMPLEX ENHANCEMENTS**

### **13.3.1 Summary of Previous Documentation/EIS Analysis**

The proposed wetland enhancement and stream relocation work in the North Wetland Complex area is addressed in the 2007 DEIS and 2008 FEIS, and is more specifically discussed within the conceptual restoration program appendix of the DEIS (Watershed Company, 2005). The mitigation concepts for the North Wetland Complex enhancements have been revised in the

Public Amenities Master Plan. The potential positive and negative impacts to plants and animals, as described in the 2007 DEIS, are still applicable to the revised wetland enhancement and stream relocation proposal.

### **13.3.2 Affected Environment**

The primary habitats in the North Wetland Complex enhancement area are Wetland C, which extends over most of the project area, and the Snohomish River and associated riparian vegetation (Figures 15 and 16). Wetland C is a large, high-functioning wetland with forested, scrub-shrub, emergent, and aquatic bed habitat types. The project area also contains a portion of the left (west) bank of the Snohomish River. The riparian vegetation along this portion of the riverbank is generally intact, and is composed primarily of shrub and forest habitat. The riverbank itself is steep and artificially armored with wood piles, cribbing, sheet metal, and/or riprap. These aquatic habitats are described in detail in Chapter 12 of this Addendum.

The Snohomish River provides habitat for several priority salmonid species, which are discussed in the Biological Assessment supplement (ESA Adolfson, 2009b). The river also provides habitat for a wide variety of non-priority fish species.

A variety of priority and non-priority birds utilize habitat both within and adjacent to the North Wetland Complex enhancement site, including songbirds, gulls, raptors, ducks, and herons. The site likely provides habitat for non-priority small mammals such as coyote, cottontail rabbit, mice, and rats. In addition, Wetland C provides habitat for beaver; several dams have been observed in the wetland. Wetland C contains permanently ponded areas with persistent vegetation, which likely provides suitable habitat for amphibian breeding. There are no documented occurrences of priority mammal, reptile, or amphibian species in the North Wetland Complex enhancements project vicinity. A full list of animal species observed within the project vicinity is found in the 2008 FEIS.

### **13.3.3 Impacts**

Construction of the wetland and stream enhancements and the trail/boardwalk may result in short-term displacement of some fish and wildlife species within Wetland C and the Snohomish River. Approximately 16.5 acres of Wetland C would be temporarily disturbed as a result of the proposed enhancements. The enhancements would also include removal of some larger beaver dams within the wetland, which may cause a permanent negative impact to the existing beaver population. Manual beaver relocation is not proposed. In addition, the increased human presence and usage of the developed park may discourage some animal species from utilizing habitat areas near the proposed trail/boardwalk.

In general, the North Wetland Complex enhancements project would result a net positive impact to plants and animals. The project-related disturbance areas would be restored, as would approximately 2.0 acres of existing disturbed riparian areas. These areas would be planted with native trees and shrubs, which would increase the overall diversity and structural complexity of plant communities at the site. Additional habitat enhancements in Wetland C include the addition of habitat structures (i.e., large woody debris [LWD]) and the restoration of tidal influence to portions of the wetland. Approximately 750 linear feet of the Snohomish riverbank would be restored. These proposed improvements would result in increased animal usage and diversity of the area. Construction activities within Wetland C may temporarily decrease habitat

connectivity; however, the proposed enhancements would ultimately enhance wildlife movement along the Snohomish River and other adjacent habitats over the long-term.

West Ditch Creek would be relocated and restored to flow through several existing and proposed wetland channels. Currently, West Ditch Creek is located in a railroad ditch and lacks a functioning buffer. Under the North Wetland Complex enhancements plan, the stream would flow through a large wetland complex (Wetland C) with diverse aquatic and semi-aquatic habitats, thus improving the habitat conditions of both West Ditch Creek and Wetland C.

### **13.3.4 Mitigation Measures**

The Biological Assessment and Habitat Management Plan (GeoEngineers, 2007) and the Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describe potential mitigation actions for plants and animals within the North Wetland Complex enhancements area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS. Mitigation measures that would be implemented for the North Wetland Complex enhancements include:

- No trees of significant value would be removed from the project site.
- Disturbed areas of the wetland, both existing and construction-related, would be restored with a diverse mix of native tree and shrub species that are known to naturally occur in the project vicinity. Approximately 2.0 acres of existing, disturbed riparian areas would be restored, in addition to restoration of areas temporarily disturbed during installation of public amenities. The chosen plant species would provide food and cover for wildlife and increase the overall plant diversity and structural complexity in the project area.
- Coniferous trees species would be planted adjacent to the new West Ditch Creek alignment, which would increase potential long-term recruitment of LWD.
- During clearing, grading, and construction activities, appropriate sediment and erosion control BMPs would be utilized.
- As described in the Biological Assessment supplement, in-water work within West Ditch Creek would be limited to approximately June 1 to October 31 in order to minimize impacts to anadromous salmonid species.

### **13.3.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to plants or animals are anticipated as a result of the North Wetland Complex enhancements element of the Public Amenities Master Plan.

## **13.4 WEST WETLAND COMPLEX ENHANCEMENTS**

### **13.4.1 Summary of Previous Documentation/EIS Analysis**

The West Wetland Complex enhancements project was not analyzed or mentioned in the 2007 DEIS or 2008 FEIS. However, several of the general impacts to plants and animals referenced in the 2007 DEIS are applicable to the West Wetland Complex enhancements project. Construction activities would result in both negative impacts (e.g., short-term displacement of wildlife during construction) and positive impacts (i.e., restoration actions).

### **13.4.2 Affected Environment**

The primary habitat area in the West Wetland Complex enhancements area is Wetland D, which contains forest, scrub-shrub, emergent and aquatic bed vegetation classes (Figure 15). The emergent areas of Wetland D generally consist of common cattail and reed canarygrass monocultures. Significant portions of Wetland D are included within a restrictive covenant that prohibits excavation greater than 1 foot, and restricts any increases in flow velocity through the area (MacLeod Reckord, 2009). Wetland D is described in more detail in Chapter 12 Wetlands and Streams.

A variety of priority and non-priority birds utilize habitat both within and adjacent to the West Wetland Complex enhancements site, including songbirds, gulls, raptors, ducks, and herons. The site also likely provides habitat for non-priority small mammals such as coyote, cottontail rabbit, mice, and rats. The wetland complex contains permanently ponded areas with persistent vegetation, which likely provides suitable habitat for amphibian breeding. There are no documented occurrences of priority mammal, reptile, or amphibian species in the West Wetland Complex enhancements project vicinity. A full list of animal species observed within the project vicinity is found in the 2008 FEIS.

### **13.4.3 Impacts**

Installation of the proposed wetland enhancements and the relocation of Bigelow Creek could temporarily disturb approximately 6.7 acres of Wetland D. Construction activities may also result in short-term displacement of some wildlife species within Wetland D. In addition, the increased human presence and usage of the adjacent proposed trail system may discourage some animal species from utilizing habitat areas in the vicinity.

Overall, the West Wetland Complex enhancements would result in a net positive impact to plants and animals. Existing, disturbed areas of Wetland D will be planted with an assemblage of native trees and shrubs, and habitat structures (e.g., wetland hummocks and LWD) would be installed. Construction within Wetland D may temporarily decrease habitat connectivity; however, the proposed enhancements would ultimately enhance wildlife movement to and from adjacent habitats over the long-term.

### **13.4.4 Mitigation Measures**

The Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describes potential mitigation actions for plants and animals within the West Wetland Complex enhancements area that are separate from, but consistent with, the mitigation actions described in

the 2007 DEIS. Mitigation measures that would be implemented for the West Wetland Complex enhancements include:

- No trees of significant value would be removed from the project site.
- Disturbed wetland areas, both existing and those caused by construction, would be restored with a diverse mix of native tree and shrub species that are known to naturally occur in the project vicinity. The chosen plant species would provide food and cover for wildlife and increase the overall plant diversity and structural complexity in the project area.
- During clearing, grading, and construction activities, appropriate sediment and erosion control BMPs would be utilized.
- Wetland enhancements would be designed to avoid disturbing sediments below the surface soil layer.

#### **13.4.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to plants or animals are anticipated as a result of the West Wetland Complex enhancements element of the Public Amenities Master Plan.

### **13.5 RIVERFRONT TRAIL IMPROVEMENTS, GROUP PICNIC, AND CONNECTIONS TO SIMPSON PAD**

#### **13.5.1 Summary of Previous Documentation/EIS Analysis**

The proposed Riverfront Trail improvements, group picnic, and connection to Simpson Pad amenities are mentioned within the 2007 DEIS, but no specific analysis was performed. Regardless, several of the general impacts to plants and animals referenced in the 2007 DEIS are applicable to this project element. Development these amenities would result in both negative impacts (e.g., loss of habitat resulting from widening existing trails) and positive impacts (i.e., restoration actions).

#### **13.5.2 Affected Environment**

Most of the project area contains forested upland and wetland habitat (Figure 15). The project site includes Wetlands C, E, F, G, H, I, Q, and R which are described in Chapter 12 Wetlands and Streams. Disturbed areas include the existing Riverfront Trail, picnic areas, and mowed lawn.

The project area contains a portion of the left (west) bank of the Snohomish River (Figure 16). The riverbank is steep and artificially armored with wood piles, cribbing, sheet metal, and riprap. The Snohomish River provides habitat for several priority salmonid species, which are discussed in the Biological Assessment supplement (ESA Adolfson, 2009b).

A variety of priority and non-priority birds utilize habitat both within and adjacent to the project site, including songbirds, gulls, raptors, ducks, and herons. The site also likely provides habitat

for non-priority small mammals such as coyote, cottontail rabbit, mice, and rats. There are no documented occurrences of priority mammal, reptile, or amphibian species within the project vicinity. In addition to the priority salmonid species described in the Biological Assessment supplement, the Snohomish River provides habitat for a variety of non-priority fish species. A full list of animal species observed within the project vicinity is found in the 2008 FEIS.

### **13.5.3 Impacts**

Construction of the proposed Riverfront Trail improvements, group picnic, and connection to Simpson Pad amenities would result in partial filling and/or covering of Wetlands C, F, H, I, Q, and R totaling 0.181 acre (Table 7). In addition, approximately 1.6 acres of forested and shrub-dominated wetland buffer would be cleared. Approximately 215 linear feet of Snohomish riverbank would be hardened, as described in Chapter 10 of this Addendum.

The trail construction activities and the proposed bank stabilization measures along the Snohomish River may result in temporary displacement of fish and wildlife species. The increased human presence and usage of the improved trail system and other amenities may discourage some animal species from utilizing habitat areas in the vicinity.

Positive impacts to plants and animals in the area would result from planting native trees and shrubs in existing lawn areas; approximately 1.9 acres would be planted in total. In addition, approximately 850 linear feet of Snohomish riverbank would be restored. These enhancements would increase plant species diversity and animal habitat suitability in the project area. Construction activities in the project area may temporarily decrease habitat connectivity; however, the proposed enhancements would ultimately enhance wildlife movement along the Snohomish River and other adjacent habitats over the long-term.

### **13.5.4 Mitigation Measures**

The Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describes potential mitigation actions for plants and animals within the project area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS.

Mitigation to compensate for adverse impacts to wetlands would be provided as required by City code and based on the mitigation standards stated in the 1997 SEWIP. Please see Section 13.1.4 for additional discussion of the regulatory mitigation requirements. Specific mitigation measures for the project area include:

- Compensation for lost wetland functions would occur through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Mitigation would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.
- Compensatory mitigation for adverse wetland and stream impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.

- The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department in advance of acquiring construction permits for proposed improvements.

Additional plants and animals mitigation measures that would be implemented for the Riverfront Trail improvements, group picnic, and connection to Simpson Pad include:

- The proposed project elements would be designed to avoid and/or minimize impacts to trees of significant value, where possible.
- To mitigate for potential tree removal, portions of existing lawns would be reclaimed by planting native trees and shrubs that are known to naturally occur in the project vicinity. A total of approximately 1.9 acres would be restored. The chosen plant species would provide food and cover for wildlife and increase the overall plant diversity and structural complexity in the project area;
- During clearing, grading, and construction activities, appropriate sediment and erosion control BMPs would be utilized.
- As described in the Biological Assessment supplement, in-water work would be limited to approximately June 1 through October 31 in order to minimize impacts to anadromous salmonid species.

### **13.5.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to plants or animals are anticipated as a result of the Riverfront Trail improvements, group picnic, and connections to the Simpson Pad elements of the Public Amenities Master Plan.

## **13.6 LOWELL CROSSING**

### **13.6.1 Summary of Previous Documentation/EIS Analysis**

The Lowell Crossing is mentioned in the 2007 DEIS, but no specific analysis is included for this project element. Regardless, several of the general impacts to plants and animals referenced in the DEIS are applicable to the Lowell Crossing project. Development of the project would result in both negative (e.g., potential temporary wildlife relocation) and positive (i.e., restoration actions) impacts.

### **13.6.2 Affected Environment**

The Lowell Crossing area contains primarily grass and weeds, with scattered patches of trees and shrubs. An existing trail/access road crosses the project area. A variety of priority and non-priority birds utilize habitat both within and adjacent to the project site, including songbirds, gulls, raptors, ducks, and herons. The site may also provide habitat for non-priority small mammals such as coyote, cottontail rabbit, mice, and rats. There are no documented occurrences

of priority mammal, reptile, or amphibian species within the project vicinity. A full list of animal species observed within the project vicinity is found in the 2008 FEIS.

### **13.6.3 Impacts**

Construction of the Lowell Crossing would occur within existing disturbed areas, and would not result in the removal of existing, mature trees. Approximately 0.2 acres of shrub habitat would be cleared. Construction activities may result in temporary displacement of wildlife species, and increased human usage of the surrounding area may result in permanent impacts to existing species. Approximately 0.4 acres would be enhanced with native shrub and tree plantings, which would likely result in a net increase in habitat quality.

### **13.6.4 Mitigation Measures**

The Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describes potential mitigation actions for plants and animals within the project area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS. Mitigation measures that would be implemented for the Lowell Crossing project include:

- The crossing would be designed to avoid trees of significant value.
- Previously disturbed areas would be enhanced with native shrub and tree plantings that are known to naturally occur in the project vicinity. Approximately 0.4 acres would be restored. The chosen plant species would provide food and cover for wildlife and increase the overall plant diversity and structural complexity in the project area.
- During clearing, grading, and construction activities, appropriate sediment and erosion control BMPs would be utilized.

### **13.6.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to plants and animals are anticipated as a result of the Lowell Crossing element of the Public Amenities Master Plan.

## **13.7 BIGELOW CREEK AND SOUTH WETLAND COMPLEX ENHANCEMENTS**

### **13.7.1 Summary of Previous Documentation/EIS Analysis**

The proposed South Wetland Complex enhancements and relocation of Bigelow Creek are discussed in the 2007 DEIS and 2008 FEIS, and elements of the project are presented in the conceptual restoration program appendix of the DEIS (Watershed Company, 2005). However, the mitigation concepts have been revised in the Public Amenities Master Plan. Regardless, the potential positive and negative impacts to plants and animals, as described in the 2007 DEIS, are still applicable to the revised wetland enhancement and stream relocation proposal.

### **13.7.2 Affected Environment**

The primary habitats within the Bigelow Creek and South Wetland Complex enhancements area include Wetlands D, N, O, and P (the South Wetland Complex), Bigelow Creek, and the Snohomish River and associated riparian vegetation (Figures 15 and 16). The individual wetlands are adjacent to each other but separated by artificial berms. The South Wetland Complex contains emergent, scrub/shrub, and forested vegetation classes. In general, there is a greater variety of vegetation in terms of both species and canopy layers within the South Wetland Complex than in other portions of the Riverfront Development site.

The portion of Bigelow Creek in the project area is channelized and flows through railroad ditches. The project area also contains a portion of the left (west) bank of the Snohomish River. The riparian vegetation along this portion of the riverbank is generally intact, and is composed primarily of shrub and forest habitat, with mowed lawn areas. The riverbank itself is steep and artificially armored with wood piles, cribbing, sheet metal, and/or riprap. The wetlands and streams in the project area are described in detail in the wetlands and streams Chapter 12 Wetlands and Streams.

The Snohomish River provides habitat for several priority salmonid species, which are discussed in the Biological Assessment supplement (ESA Adolfson, 2009b). The river also provides habitat for a wide variety of non-priority fish species. Juvenile priority salmonids have been observed in Bigelow Creek, as described in the Biological Assessment supplement. In addition, Bigelow Creek likely provides habitat for small, non-priority fish, such as sculpin and stickleback.

A variety of priority and non-priority birds utilize habitat both within and adjacent to the Bigelow Creek and South Wetland Complex enhancements project area, including songbirds, gulls, raptors, ducks, and herons. The area also likely provides habitat for non-priority small mammals such as coyote, cottontail rabbit, mice, and rats. In addition, the South Wetland Complex provides habitat for beaver, and Wetlands D and N contain permanently ponded areas with persistent vegetation, which likely provides suitable habitat for amphibian breeding. There are no documented occurrences of priority mammal, reptile, or amphibian species in the Bigelow Creek and South Wetland Complex enhancements project vicinity. A full list of animal species observed within the project vicinity is found in the 2008 FEIS.

### **13.7.3 Impacts**

Construction of the proposed wetland and stream enhancements, fire access road, constructed wetland, and trestle bridge would result in both temporary and permanent impacts to plants and animals in the Bigelow Creek and South Wetland Complex enhancements project area. Portions of Wetlands D, N, and O would be permanently filled and/or covered to realign the Bigelow Creek stream channel, construct a wetland to improve the water quality of the stream, and create a boardwalk (Table 8). In addition, approximately 7.5 acres of forest and scrub/shrub habitat of the South Wetland Complex would be cleared. These areas would be converted to habitats that are more diverse, such as intertidal and riparian wetlands. Of the proposed 7.5 acres of clearing, approximately 4.2 acres is even-aged black cottonwood and red alder stands, with low plant diversity. This habitat conversion would result in permanent negative impacts to species directly dependent upon forest and scrub-shrub habitat, but would positively affect species that depend on tidally-influenced wetland habitat (e.g., coho salmon).

Construction activities may result in temporary displacement of wildlife species, and increased human usage of the surrounding area may result in permanent impacts to existing species.

The public amenities would result in significant positive impacts to plants and animals. Bigelow Creek would be restored and relocated to approximately its historic location, which would increase the habitat value of the stream compared to its current ditched configuration. In addition, the Bigelow Creek restoration element would restore tidal influence to the stream and the South Wetland Complex, thus increasing the habitat complexity of the area. Existing, disturbed wetland and buffer area within the South Wetland Complex would be enhanced by removing artificial berms and reestablishing native vegetation communities. Overall, these proposed improvements would likely result in increased plant and animal diversity of the Bigelow Creek and South Wetland Complex enhancements project area.

Construction activities within the South Wetland Complex may temporarily decrease habitat connectivity; however, the proposed enhancements would ultimately enhance wildlife movement along the Snohomish River and other adjacent habitats over the long-term.

#### **13.7.4 Mitigation Measures**

The Biological Assessment and Habitat Management Plan (GeoEngineers, 2007) and the Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describe potential mitigation actions for plants and animals within the Bigelow Creek and South Wetland Complex enhancements project area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS.

Proposed work in the Bigelow Creek and South Wetland Complex enhancements project area would impact 1.72 acres of wetland regulated by the City. Mitigation to compensate for adverse impacts to wetlands would be provided as part of the project as required by City code based on the mitigation standards stated in the 1997 SEWIP. Refer to Section 13.1.4 for additional discussion of the regulatory mitigation requirements.

Specific mitigation measures for the project area include:

- Compensation for lost wetland functions would occur through the construction of compensatory wetland mitigation consistent with the 1997 SEWIP, as required by the City's Zoning Code. Mitigation would be provided through enhancement or restoration of degraded wetland areas within the railroad corridor enhancements area, North Wetland Complex, Riverfront Trail improvements corridor, West Wetland Complex, or South Wetland Complex.
- Compensatory mitigation for adverse wetland and stream impacts would be constructed in advance of, or concurrent with, projects elements that affect wetlands.
- The City would develop a detailed wetland assessment and compensatory mitigation plan consistent with 1997 SEWIP assessment methodology and submit the plan to the City Planning and Community Development Department in advance of acquiring construction permits for proposed improvements.

Additional plants and animals mitigation measures that would be implemented for the Bigelow Creek and South Wetland Complex enhancements project include:

- Where possible, additional trees would be planted within the South Wetland Complex and its buffer, to mitigate for the permanent tree removal in the wetland.
- Coniferous trees would be planted adjacent to the new Bigelow Creek alignment, which would increase potential long-term recruitment of LWD.
- Prior to construction work, forested areas that would be impacted would be surveyed for the presence of raptors and cavity-nesting birds. Trees that provide habitat for these birds would be retained.
- Disturbed areas of the wetland, both existing and construction-related, would be restored with a diverse mix of native tree and shrub species that are known to naturally occur in the project vicinity. The chosen plant species would provide food and cover for wildlife and increase the overall plant diversity and structural complexity in the project area.
- During clearing, grading, and construction activities, appropriate sediment and erosion control BMPs would be utilized.
- As described in the Biological Assessment supplement, in-water work within Bigelow Creek would be limited to approximately June 1 through October 31 in order to minimize impacts to anadromous salmonid species.

### **13.7.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to plants or animals are anticipated as a result of the Bigelow Creek and South Wetland Complex enhancements element of the Public Amenities Master Plan.

## **13.8 LOWELL RIVERFRONT PARK IMPROVEMENTS**

### **13.8.1 Summary of Previous Documentation/EIS Analysis**

The Lowell Riverfront Park improvements project was briefly described in the 2007 DEIS, but no specific analysis was included for this project element. Regardless, several of the general impacts to plants and animals referenced in the 2007 DEIS are applicable to the Lowell Riverfront Park improvements. Development of the project would result in both negative impacts (e.g., potential temporary wildlife relocation) and positive impacts (i.e., restoration actions).

### **13.8.2 Affected Environment**

Most of the existing park is significantly disturbed, with a gravel parking area, paved trail, and lawn areas. The only significant habitat area within the Lowell Riverfront Park is a portion of the left (west) bank of the Snohomish River. Adjacent to the river, the existing strip of riparian vegetation is narrow (approximately 10 feet wide) and consists of scattered trees and shrubs. The riverbank is steep and artificially armored with wood piles, cribbing, sheet metal, and riprap.

The Snohomish River provides habitat for several priority salmonid species, which are discussed in the Biological Assessment supplement (ESA Adolfson, 2009b).

A variety of priority and non-priority birds utilize habitat both within and adjacent to Lowell Riverfront Park, including songbirds, gulls, raptors, ducks, and herons. The site also likely provides habitat for non-priority small mammals such as coyote, cottontail rabbit, mice, and rats. There are no documented occurrences of priority mammal, reptile, or amphibian species in the project vicinity. In addition to the priority salmonid species described in the Biological Assessment supplement, the Snohomish River provides habitat for a variety of non-priority fish species. A full list of animal species observed within the project vicinity is found in the 2008 FEIS.

### **13.8.3 Impacts**

Construction activities associated with the proposed park improvements and bank stabilization measures along the Snohomish River may result in temporary displacement of fish and wildlife species. In addition, increased human usage of the surrounding area may result in permanent impacts to existing species. Approximately 400 linear feet of Snohomish riverbank would be hardened, as described in Chapter 10 of this Addendum. Approximately 0.6 acres of forested and shrub habitat would be cleared.

Positive impacts to plants and animals in the area would result from planting native trees and shrubs within the park and adjacent to the Snohomish River. A total of 0.3 acres of riparian habitat would be restored. Also, approximately 200 linear feet of Snohomish riverbank will be restored. Given the existing conditions of the Lowell Riverfront Park area, the proposed improvements would likely result in increased plant and animal diversity in the area and would enhance wildlife movement along the Snohomish River.

### **13.8.4 Mitigation Measures**

The Riverfront Development Public Amenities Master Plan (MacLeod Reckord, 2009) describes potential mitigation actions for plants and animals within the Lowell Riverfront Park improvements area that are separate from, but consistent with, the mitigation actions described in the 2007 DEIS. Mitigation measures that would be implemented for this project include:

- Removal of trees of significant value would be avoided and/or minimized, where possible.
- Tree and shrub plantings in the park would be a diverse mix of native species that are known to naturally occur in the project vicinity. Approximately 0.3 acres would be restored. The chosen plant species would provide food and cover for wildlife and increase the overall plant diversity and structural complexity in the project area.
- During clearing, grading, and construction activities, appropriate sediment and erosion control BMPs would be utilized.
- As described in the Biological Assessment supplement, in-water work would be limited to approximately June 1 through October 31 in order to minimize impacts to anadromous salmonid species.

### **13.8.5 Significant Unavoidable Adverse Impacts**

Following implementation of the mitigation measures described above, no significant unavoidable adverse impacts to plants and animals are anticipated as a result of the Lowell Riverfront Park improvements element of the Public Amenities Master Plan.

## **CHAPTER 14. ENERGY AND NATURAL RESOURCES**

### **14.1 SUMMARY OF PREVIOUS DOCUMENTATION/EIS ANALYSIS**

Section 4.6 of the DEIS for the Everett Riverfront Redevelopment (pages 4-108 – 4-114, City of Everett, 2007) addressed existing conditions, impacts, and mitigation measures related to electrical power, natural gas, nonrenewable fossil fuels, sand and gravel, landfill gases, wood, wind, tidal energy and sunlight. OliverMcMillan, LLC committed to constructing the proposed development using sustainable building and development practices such as those found in the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

### **14.2 AFFECTED ENVIRONMENT**

The scoping notice for the Public Amenities Master Plan stated this Addendum would further evaluate voluntary measures under the LEED Green Building Rating System. The LEED Green Building Rating System provides a suite of standards for environmentally sustainable construction. Different LEED Rating Systems, such as Neighborhood Development, New Construction, Retail, and Homes have varied scoring systems based on a set of required "prerequisites" and a variety of "credits". Based on the number of points received, developments can qualify for up to five levels of certification: certified, bronze, silver, gold, and platinum.

City of Everett Ordinance No. 2995-07 declares the City's intent to promote green building practices and low impact development in the design, construction and management of all City-owned capital facilities, and encourages the use of such building and development practices in private development in the City. The Ordinance adopted the following policy related to public projects:

City departments shall utilize LEED criteria to implement green building practices to the maximum extent practicable in the planning, design and construction of all new City capital improvement projects as set forth herein:

1. For new City building projects exceeding 5,000 square feet, LEED silver certification shall be required unless the City Council determines it is not practicable or appropriate considering such things as the type of structure (certain utility structures, etc), available resources, construction costs and life-cycle costs. Projects qualifying for LEED certification shall be registered through the U.S. Green Building Council.
2. For new projects under 5,000 square feet and for remodels and renovations where the scope of the project or type of structure limits the ability to achieve LEED silver certification, City departments shall incorporate cost effective green building practices based on estimated life cycle cost analysis and the limits of available funding.

### **14.3 IMPACTS**

All of the structures proposed in the Public Amenities Master Plan are less than 5,000 sf, so LEED certification is not required under the City's policy. However, the Public Amenities Master Plan proposals will incorporate cost-effective, green building practices and address life cycle and maintenance costs in all site amenities. OliverMcMillan, LLC also has committed to applying LEED building practices in their portion of the public/private redevelopment and the City intends to be consistent to the extent feasible with the private development on the site.

### **14.4 MITIGATION MEASURES**

The City will follow the guidelines established in the Ordinance 2995-07 as they apply to all construction of the public amenities improvements based on a life cycle cost analysis.

### **14.5 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

There are no anticipated significant unavoidable adverse impacts anticipated as a result of the implementation of the Public Amenities Master Plan on energy and natural resources.

# CHAPTER 15. ENVIRONMENTAL JUSTICE

## 15.1 STUDY METHODS

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, directs federal agencies to address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. “Disproportionately high and adverse effect” means that an adverse effect is predominantly borne by a minority population and/or a low-income population, and that the effect is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the rest of the population. At this time, no federal lead agency has been identified, but the method used generally follows the process for environmental justice analysis used by most federal agencies.

Minority populations are defined as any readily identifiable group of minority persons including Black or African American, Hispanic or Latino, American Indian or Alaskan Native, Native Hawaiian or other Pacific Islander, or individuals identified as belonging to two or more races (FHWA, 2003). Low-income populations are defined as a readily identifiable group of individuals whose median household income is at or below the United States Department of Health and Human Services (DHHS) poverty guidelines, which are updated periodically in the Federal Register by the DHHS under the authority of 42 U.S.C. 9902(2).

Socioeconomic conditions and environmental justice populations (low-income and minority populations) potentially affected by the project were previously evaluated as part of the 2007 DEIS (City of Everett, 2007). Demographic data from the 2000 Census used for the 2007 DEIS analysis were reviewed and further analyzed to provide more detail regarding potential impacts on socioeconomic conditions and environmental justice populations in the study area.

Methods to assess the potential for impacts on environmental justice populations include:

- a) a review of demographics within the project area to determine if environmental justice populations are present;
- b) an evaluation of identified potential impacts to the environment and/or community for their potential to affect environmental justice populations; and
- c) a determination of whether or not potential impacts represent “disproportionately high and adverse effects” on environmental justice populations.

Primary data sources include the 2000 U.S. Census and other demographic data published by Washington State.

## 15.2 SUMMARY OF PREVIOUS DOCUMENTATION/EIS ANALYSIS

Socioeconomic conditions were previously addressed in Section 5.1.5 of the 2007 DEIS. This analysis focused on how the housing, population, and employment generated by the Everett Riverfront redevelopment would achieve growth targets in the City of Everett’s adopted Comprehensive Plan. This growth would be largely attributable to the proposed mixed-use

commercial/residential development and not directly related to the public amenities provided by the City.

Potential impacts to environmental justice populations were previously addressed in Section 5.8.3 of the 2007 DEIS. Minority and low-income populations in the vicinity of the project were identified and impacts on these populations described. The 2007 DEIS found that conditions experienced by environmental justice populations would be largely improved. Like other residents of Everett, environmental justice populations near the project would benefit from an increase in open space and other associated public amenities such as improved public access to the riverfront. Rehabilitation of a former, mostly industrial site would provide improved environmental conditions. Mixed commercial uses at the Riverfront Development site would provide local retail and commercial opportunities that are not readily accessible in the project area. As described in the 2007 DEIS, a City-owned public works storage yard and a community manufacturing facility (Diversified Industries) may be relocated in the future. The 2007 DEIS addressed potential impacts of these relocations and potential mitigation measures. There are no residential displacements or anticipated encroachment impacts.

Some of the proposed public amenities were referenced in the 2007 DEIS, but the analysis lacked specificity regarding public amenities and potential impacts. The 2007 DEIS acknowledged that 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.

## **15.3 AFFECTED ENVIRONMENT**

### **15.3.1 Socioeconomic Conditions**

**15.3.1.1 Population, Housing, and Employment.** According to the most recent U.S. Census (2000), the population of Everett was 91,488. Between 1990 and 2000, the population of Everett increased by 30.8 percent, which was higher than the State of Washington average of 21.1 percent over the same period. Since the census, Everett has continued to grow, reaching an estimated population of 103,500 in 2009 (OFM, 2009).

In 2000 the proportion of males and females in Everett was 50.9 percent and 49.1 percent, respectively. The median age of the population was 32.2, which was slightly lower than the state median of 35.3 for the same year. The top three employment sectors for Everett's civilian population were "management, professional, and related occupations" (27.2 percent), "sales and office occupations" (25.9 percent), and "production, transportation, and material moving occupations" (17 percent). Major employers in Everett include the Boeing Company, Providence Hospital, and Verizon. The economy of Everett also relies on its deep-water port, Naval station, and tourism sector.

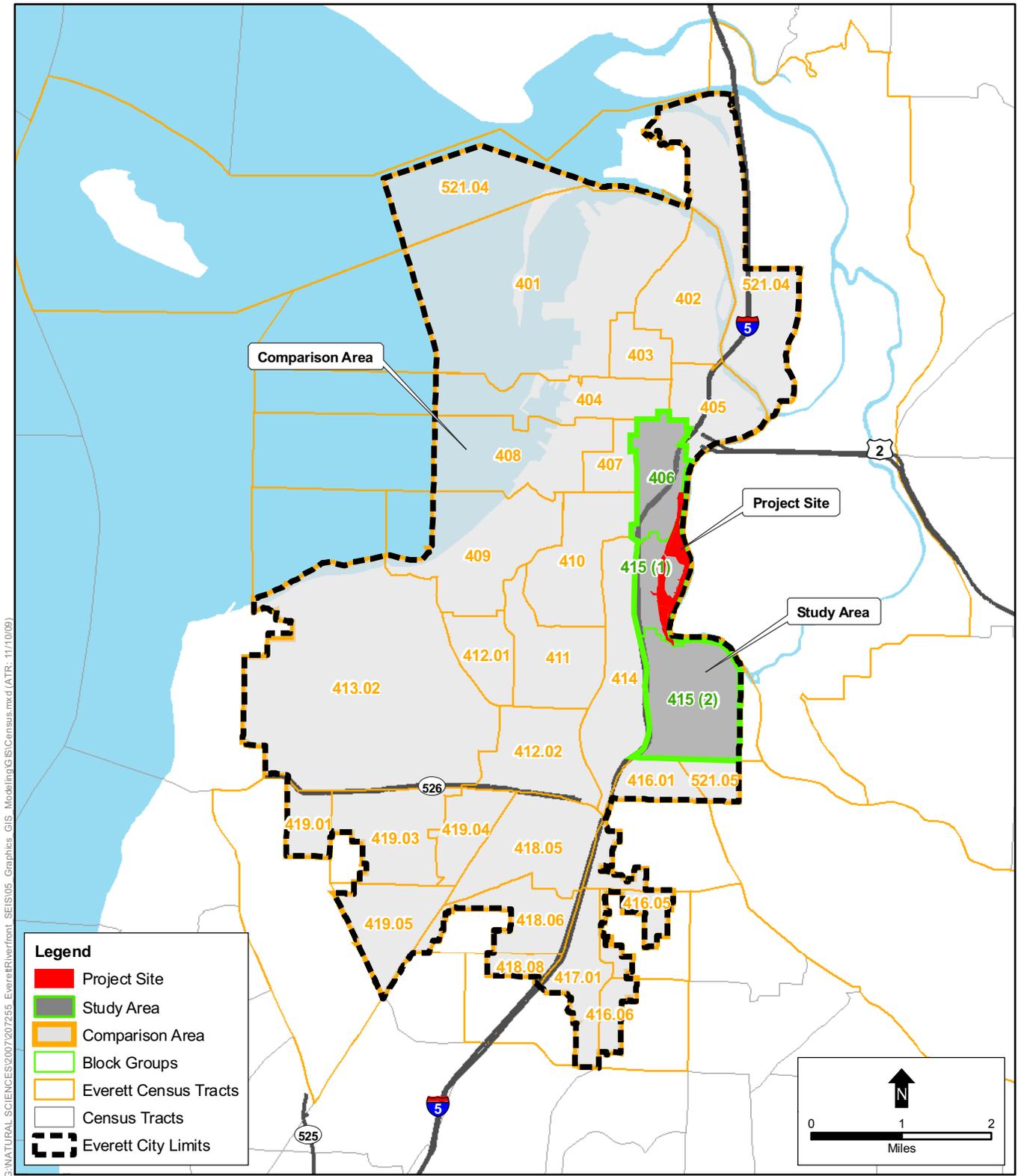
The median household income in 2000 was \$40,100, slightly lower than the median income of the state (\$45,766) for the same year. In 2000, the percentages of occupied housing units that were owner and renter occupied were 46 percent and 54 percent, respectively, compared to 64.6 percent and 35.4 percent statewide for the same year. The home vacancy rate for Everett was 5.7 percent, slightly lower than the vacancy rate for the state of 7.5 percent for the same year.

**15.3.1.2 Community Character.** The closest residential community, the Lowell neighborhood, is separated from the south end of the site by the BNSF Railway mainline, limiting direct access from the neighborhood to the site. The Lowell neighborhood is a long-established historic neighborhood consisting primarily of modest, older single-family residences with some small commercial nodes including a grocery store, restaurant and office uses. The neighborhood's local industrial-based economy and employment changed since the 1970s when most major industry in the area closed. Now, employment is found in other areas of Everett and the region; however, the neighborhood still retains its identity as a unique community. Industrial and heavy commercial uses are located adjacent to the north end of the site.

### **15.3.2 Environmental Justice**

**15.3.2.1 Demographic Data.** The study area for the purposes of the environmental justice analysis is defined as the area where project activities and potential human health and environmental impacts would occur. The area within approximately 0.5 mile west of the Riverfront Development site was chosen as the study area for this analysis because most of the environmental effects resulting from the project would be limited to areas close to the public amenities. The study area is encompassed by Census Tracts 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 (Figure 17). The study area was compared to the City of Everett as a whole, termed the "comparison area" (see Figure 17). While some of the effects of the project (i.e., construction truck haul trips) may be experienced outside the immediate vicinity, the study area would be expected to experience the greatest impacts from the project, both adverse and beneficial.

Table 9 identifies the number of individuals and percentage of total population within the study area and the comparison area representing low-income and minority populations according to U.S. Census data.



SOURCE: Snohomish County, 2007; US Census, 2000; WA Dept of Ecology, 1994.

Everett Riverfront. 207255  
**Figure 17**  
 Census Geography  
 Everett, Washington

**Table 9: Project Study Area and Comparison Area Environmental Justice Populations**

Population	Study Area					City of Everett ("Comparison Area")	
	CT 406 (Block Group 1)		CT 415 (Block Groups 1 and 2)		Total Study Area		
	Individuals	%	Individuals	%	%	Individuals	%
Low-Income <sup>1</sup>	217	22.7%	175	11.4%	15.7%	11,283	12.9%
Black or African American <sup>2</sup>	42	4.3%	9	0.6%	2.0%	2,844	3.1%
American Indian or Alaskan Native <sup>2</sup>	43	4.4%	14	0.9%	2.3%	1,533	1.7%
Asian <sup>2</sup>	16	1.6%	41	2.6%	2.3%	5,949	6.5%
Native Hawaiian or other Pacific Islander <sup>2</sup>	0	0%	0	0%	0%	224	0.2%
Hispanic or Latino <sup>2</sup>	63	6.5%	85	5.5%	5.9%	6,273	6.8%
Other <sup>2</sup>	0	0%	0	0%	0%	174	0.2%
Two or more races <sup>2</sup>	38	3.9%	70	4.5%	4.2%	3,114	3.4%
Total Minority Population	202	20.8%	219	14.1%	16.7%	20,111	22.0%
Total Population <sup>3</sup>	970		1,555		2,525	91,290	

<sup>1</sup> Source: Census 2000 Summary File 3 - Table P87 - Sample Data - Population for whom poverty status is determined.

<sup>2</sup> Source: Census 2000 Summary File 3 - Table P7- Race and Hispanic or Latino status.

<sup>3</sup> Note: The total population used to calculate the percentage of low-income population is based on a set of sample data, and thus is slightly different than that used for minority status. For more information on how the data sets are calculated, go to

[http://factfinder.census.gov/servlet/DatasetMainPageServlet?\\_program=DEC&\\_submenuId=&\\_lang=en&\\_ts=](http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=DEC&_submenuId=&_lang=en&_ts=).

**15.3.2.2 Low-Income Populations.** Compared to Everett as a whole, the project study area has a slightly higher percentage of low-income individuals than the comparison area (15.7 percent in the study area compared to 12.9 percent in the City). In a portion of the study area (Census Tract 406), 22.7 percent of the population earned wages below the poverty threshold. This percentage

is considered meaningfully higher than that for Everett as a whole; therefore, this census tract is considered a low-income community.

**15.3.2.3 Minority Populations.** Compared to Everett as a whole, the project study area has a lower percentage of its population that is minority. Approximately 16.7 percent of the total population in the study area and approximately 22.0 percent of the population in the comparison area is minority or of two or more races. The study area has a slightly larger percentage of one or more minority groups (American Indian or Alaskan Native, two or more races) and a lower percentage of all other minority groups than the comparison area.

## **15.4 IMPACTS**

### **15.4.1 Socioeconomic Conditions**

During construction of the public amenities elements, the construction labor force would vary in size depending on the construction project. Construction labor would be derived mainly from regional sources, and workers would likely use local retail services. Expenditures for construction-related equipment, materials, and fuel would also provide some stimulus to the local economy over the duration of construction. This would provide beneficial, although minor and short-term, effects on the local economy. Operation of the 3-Acre Park may add a small number of new employees to the City's workforce. It is unlikely that construction or operation of the project would result in any appreciable change to population, median income, or other population characteristics.

During construction of the Railroad Corridor Trail and the Lowell Riverfront Park improvements, temporary closures or detours could affect existing recreational resources, which also could have a minor effect on the local economy if fewer visitors use the resources (and spend fewer dollars in the local economy).

No long-term increase in population or growth would be directly attributable to the Public Amenities Master Plan. As described in the 2007 DEIS, property values in the surrounding areas could increase, including in the Lowell neighborhood. Increased property values could result in additional redevelopment in the vicinity and pressure for more intense land use designations in the long term. This is consistent with the City's long-term plan to have a strong harborfront and riverfront with a band of redevelopment in between. Beneficial effects of increased property values may be counterbalanced to some degree if redevelopment increases traffic, noise and other adverse impacts in the area. Also, redevelopment could result in changes to neighborhood character over the long term.

The proposed public amenities may increase traffic into the Lowell neighborhood, including pedestrian traffic on the proposed Lowell Crossing. A portion of this traffic through the neighborhood would be expected to participate in some local retail activities, potentially benefitting the local economy.

### **15.4.2 Environmental Justice Populations**

Based on the available data, the total minority population in the geographic area likely to be directly or indirectly affected by the project is consistent with the total minority population in the

comparison area. The proposed public amenities elements would occur near an area with a higher percentage of low-income population, compared to Everett as a whole. No residents, minority or low-income populations, or businesses would be displaced, and no property would be acquired as a result of construction or operation of any elements of the Public Amenities Master Plan.

Long-term impacts would be primarily beneficial. As described in the 2007 DEIS, like other populations near the Riverfront Development site, the environmental justice populations near the site would benefit from an increase in open space and other associated public amenities such as improved public access to the riverfront. Rehabilitation of a former, mostly industrial site would provide improved environmental conditions.

The Riverfront Development site is effectively separated from existing residential and commercial areas of Everett by the Snohomish River to the east and the BNSF Railway mainline to the west. While the site's location will generally limit construction-related impacts felt off-site, temporary impacts to the surrounding community would likely affect some low-income and minority populations. Temporary impacts include construction-related noise, air quality impacts, and transportation impacts. These impacts would primarily be related to truck haul trips to and from the site.

Construction-related impacts would affect all members of the surrounding community in a similar fashion. No residential areas are located on or immediately adjacent to the Riverfront Development site, the area that would be most affected by construction. Therefore, the impacts of the proposed project would not be "predominantly borne" by a low-income and/or minority population to the degree that it would represent a "disproportionately high and adverse impact."

### **15.4.3 Community Cohesion**

Community cohesion refers to linkages between neighborhoods and community facilities such as churches, schools, community centers, libraries, and parks. No community facilities would be displaced as a result of the project. No community facilities that specifically or uniquely serve low-income or minority populations have been identified that would be adversely affected by the project. The proposed project would not block or restrict access to any properties, community facilities, or services. The linkages between the Lowell neighborhood and the public amenities on the site, both existing and proposed, would be improved by the project. Improved trail linkages would also be beneficial to community cohesion.

## **15.5 MITIGATION MEASURES**

No long-term adverse impacts are anticipated. No property acquisition is necessary for the Public Amenities Master Plan and no displacement would occur. Mitigation measures to address temporary construction impacts on local neighborhoods are included in the DEIS prepared for the Everett Riverfront Redevelopment (City of Everett, 2007).

## **15.6 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

No significant unavoidable adverse impacts on socioeconomic conditions or environmental justice populations are anticipated as a result of the Public Amenities Master Plan.



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## GLOSSARY OF TERMS

**3-Acre Park.** The proposed City park on the north end of the Public Amenities project area as shown in the master plan.

**41<sup>st</sup> Street bridge.** The proposed new raised bridge that connects the proposed round about to the Simpson Pad that entirely crosses the railroad corridor.

**41<sup>st</sup> Street overcrossing.** The new bridge over the active railroad that leads to the round about and the landfill and Simpson Pad.

**41<sup>st</sup> Street secondary access bridge.** The proposed new bridge just north of the 41<sup>st</sup> Street bridge that will be built at approximately the same location as the temporary access bridge to the Simpson Pad.

**BNSF Railway mainline.** The main set of active tracks that border the western edge of the Riverfront Development site (inclusive of the Landfill site).

**Central Gathering Place.** OliverMcMillan LLC's public space within the Landfill site.

**Eclipse Mill site.** The parcels directly north of the 3-Acre Park along the shoreline that will be developed for mixed uses.

**habitat pools.** The mitigation area north of the 41<sup>st</sup> Street bridge that will be constructed by the developer within the railroad corridor.

**Landfill site.** All areas to the west of the existing fence west of the Railroad Corridor Trail where the mall and mixed use areas will be built by the developer.

**Lowell at-grade railroad crossing.** The existing railroad crossing near (the) Lowell Neighborhood Park and the Riverfront Development site

**Lowell Crossing.** The proposed grade separated bridge.

**Lowell neighborhood.** The community surrounding the site to the west.

**Lowell Neighborhood Park.** Existing community park west of the site across the railroad tracks, not part of the project.

**Lowell Riverfront Park.** The existing park, which is part of the project on the south end of the site.

**PUD transmission towers.** The towers that support the overhead transmission line that bisects Wetland C and the Landfill site, which are owned by Snohomish County Public Utility District No. 1.

**Railroad Corridor Trail.** The proposed trail along the east side of the Landfill site connecting the Simpson Pad and 41<sup>st</sup> Street to the 3-Acre Park.

**railroad corridor wetlands.** The series of linear, ditched and channelized wetlands located in the vacated railroad corridor that bisects the site.

**restrictive covenant area.** Area where soil excavation is prohibited due to concerns about low level soil contamination. Includes portions of Wetland D and a small area of Wetland C northeast of the 41<sup>st</sup> Street bridge.

**Riverfront Development site.** The entire development area, including both private development (Simpson Pad, Landfill site, and Eclipse Mill site, and all other areas to be improved by the Public Amenities Master Plan).

**Riverfront District.** Area included within the “Riverfront Planned Development Overlay District”. This is similar to, but not the same as the Riverfront Development site. The Riverfront District does not include the WSDOT parcels and Lowell Riverfront Park and it does include several parcels to the west of the Eclipse Mill site south of Pacific and east of Interstate-5 that are not included currently proposed for development by OliverMcMillan or the City.

**Riverfront Trail.** Existing paved trail that extends north from Lowell Riverfront Park to the north end of the Simpson Pad.

**Simpson Pad.** The “island” of land between the North, East, South, and West Wetland Complexes that is the proposed site of future residential development.

**Trestle Bridge.** Proposed new bridge over a proposed new outlet of Bigelow Creek near the southeastern corner of the Simpson Pad that will be part of the Riverfront Trail.

**Walton Creek.** The proposed future feature through Wetland C that will convey water currently carried by the West Ditch Creek.

**West Ditch Creek.** The drainage conveyed primarily by the westernmost ditch in the railroad corridor that originates east of the Lowell Neighborhood Park and flows northward down the railroad corridor to discharge into the river south of the 3-Acre Park near the location of the proposed Central Gathering Places.

**WSDOT parcels.** The entire parcel of land where the ponds are located. Includes trails, wetlands, and riparian areas around the ponds.

**WSDOT stormwater treatment facilities.** The stormwater treatment ponds and associated conveyance facilities within the WSDOT parcel.