

## DRAFT MITIGATION STRATEGY

### Section Organization

The draft mitigation strategy is organized by element of the environment, in the same order as discussed in the EIS. The discussion under each element of the environment is generally divided into the following sections:

- Threshold
- Mitigation Required by Existing Codes and Ordinances
- Recommended Mitigation Measures
- Other Potential Mitigation Measures

The recommended mitigation measures are those that staff recommends be adopted by Planning Commission and City Council. The list of other potential mitigation measures are additional measures that could be required of development and/or implemented by the City or other government agencies and utility providers.

In addition, the Transportation section has a heading titled:

- Assumptions Related to Recommended Mitigation Measures

The intent of the text in this section is to provide additional detail regarding the proposed mitigation strategy.

The Surfacewater, Plants and Animals section also includes a heading titled:

- Additional Recommended Actions that Could Improve Environmental Conditions in the Subarea

These are measures recommended by staff that could be taken by the City or other agencies to improve environmental conditions in the Subarea, but are not measures that would be required for development of specific project sites.

Throughout the mitigation strategy, staff has identified mitigation measures that are significant policy issues. Usually these measures are identified because the measure would be a significant change over current regulations or conditions normally placed through SEPA.

Note that some of the recommended mitigation measures conflict with current standards in the Zoning Code. The Planned Action Ordinance would state that the adopted mitigation strategy supersedes any conflicting ordinance requirements.

## 3.1 LAND USE

### 3.1.1 Proposed Threshold

#### Height of Buildings/Structures

Additional SEPA analysis is required for any structure that the FAA determines may have a significant adverse effect on navigable airspace around Paine Field Airport.

Additional SEPA analysis is required for any project located in the M-1 zone east of Hardsen Road with a proposed building height greater than 65 feet. The analysis must assess impacts to views from the residential areas to the south and east.

#### Permitted and Accessory Uses

Tables 3.1-1 and 3.1-2 list the permitted uses and accessory uses/activities covered in this EIS analysis. If a permitted use or accessory use is not covered in this EIS analysis (as shown in the right column of Table 3.1-1 and Table 3.1-2), additional SEPA review will be required. However, any information in this EIS that is applicable to the impacts associated with that use will be adopted in those individual SEPA reviews, and new analysis will cover only those issues not addressed in this EIS. If the Planning Director determines that an unlisted use is similar in nature to a listed use, the Director may allow the use without additional SEPA analysis (see Unlisted Uses below).

**The list of permitted uses in Table 3.1-1 is meant to be a general summary.** See the City of Everett Zoning Code for exact language and specific definitions of uses. Many of the uses are permitted subject to standards and/or specific prohibitions, and the standards often vary from zone to zone. Also please note that some City of Everett zones allow subsets of uses; while those uses are not specifically called out in other zones, they may be permitted under a different name. For example, the C-2 and M-1 zones allow boat building. While not specifically listed as a permitted use, boat building would also be permitted in the M-M and M-2 zones under the Manufacturing and Heavy Manufacturing categories.

Some properties in the Subarea have special limitations on uses permitted on the site. This includes properties with concomitant agreements to rezone ordinances, master plans, and the Merrill Creek Centre property on Hardsen Road. These limitations are not specified in Table 3.1-1, but still apply as long as the agreements are in effect. See Section 2.4 of the EIS for a description of projects that have limitations on uses beyond that listed in the Zoning Code. These projects all received some type of approval prior to the time the current City of Everett Zoning Code was in place.

Developments within the subarea must comply with the Zoning Code requirements in effect at time of application.

Unlisted Uses. When a use is proposed that is not listed anywhere in the City of Everett Zoning Code, the Unlisted Use section of the Code allows the Planning Director to allow the use in zones where it is similar to other permitted uses. (Public notice to contiguous property owners is required, and an opportunity to appeal the decision is provided.) Unlisted uses are covered in this Subarea Plan/DEIS if the nature of the unlisted use is sufficiently similar to other

uses in that zone which are covered by this plan, the impacts of the use fall within the range of impacts analyzed in this EIS, and the use complies with applicable mitigation measures and other requirements of City codes and ordinances.

Future Changes to Zoning Codes. We anticipate that future Zoning Code revisions will modify the list of permitted uses to add new uses (such as microbreweries), modify the range of zones some uses are permitted in, and clarify definitions of some uses. Separate environmental review will be completed for the Zoning Code revisions. The Subarea Plan/Planned Action Ordinance will be updated following adoption of the Zoning Code revisions to clarify the uses covered. Typically, new uses will have impacts that fall within the range identified in this EIS, and will therefore be covered by this EIS.

Accessory Uses, Activities and Structures. Many activities are associated with development and use of a site or sites that are accessory to the permitted uses, but are not generally called out in Zoning Codes as specific uses. Table 3.1-2 describes those activities/uses and defines the activities covered in the Subarea Plan and EIS analysis. Many of these activities will be permitted subject to standards contained in ordinances or mitigation measures identified in the adopted mitigation strategy.

**Table 3.1-1: Uses Permitted in the SW Everett/Paine Field Subarea  
by the City Zoning Code  
and Those Analyzed in the SW Everett/Paine Field EIS<sup>1</sup>**

(I: Use Permitted II: Planning Director Decision with Notice III: Hearing Examiner Decision)  
(blank means not specifically called out as a permitted use)

USE	ZONE	R-S	B-1	C-2	M-M	M-1	M-2	Uses Covered in This EIS Analysis? <sup>2</sup>
Above ground utility or communication facilities		III	III	II	II	II	II	Satellite dishes, monopole antennas, misc. small facilities, & communication towers are covered. See Sections 3.8.5 and 3.1.  Small facilities such as lift stations and telephone switching buildings covered.  Electrical transmission lines and substations covered. See Section 3.6.1
Accessory Dwelling Units		I						NA
Activities Requiring Large Land Areas		III	III		III			No
Adult family home		I	I					NA
Adult use businesses				I	I	I	I	Yes
Aggregates extraction and related manufacturing*						III		No
Aircraft components mfg.*					I	I	I	yes
Aircraft mfg., maintenance*							I	yes
Aircraft landing facilities						III	III	Only those facilities proposed in the Paine Field Master Plan
Appliance sales, service				I				yes
Bakery, retail*			I					yes
Bakery, wholesale*					I	I		yes
Barber shop, beauty salon			I	I	I			yes
Batch plant, asphalt or concrete*					III	III	III	no
Bed and breakfast house		III	II					yes
Billboards								no
Blast furnaces*							III	no
Boarding or rooming house		I						NA
Boat building, sales, service, storage*				I				yes
Boat manufacturing*						I		yes
Bottling plant				I	I		I	yes
Brewery or winery*				I	I		I	yes
Broadcast studio					I	I		yes

<sup>1</sup> Many of the uses are permitted subject to standards that can vary by zone.

<sup>2</sup> Some uses which are listed as permitted are not expected to locate in the Subarea, and are therefore not evaluated. For example, it is not anticipated that single family uses will locate in the Subarea, although they are permitted on the Sno Isle Skills Center site and in the B-1 zone. Therefore, this DEIS does not evaluate regulations and impacts related to single family uses. These uses were marked as "NA" in the right hand column of Table 3.1-1.

USE /	ZONE	R-S	B-1	C-2	M-M	M-1	M-2	Uses Covered In This EIS Analysis? <sup>2</sup>
Bulk fuel sales, storage*				I				yes
Business or vocational school*				I	I	I		yes
Business equipment manufacturing*					I	I	I	yes
Business equipment sales, service					I			yes
Business park					I	I		yes
Cabinet shop*				I	I		I	yes
Cement manufacturing*							III	no
Church		III	I	I	I	I	I	yes
Clinic			I	I	I		I	yes
Composting facilities*							III	no
Contractor's office, shop & storage				I	I			yes
Daycare, commercial		III	I	I	I	I	I	yes
Daycare, family home		I	I					NA
Daycare, mini-center		III	I					yes
Delivery and moving services				I				yes
Drop forge industries							III	no
Dry cleaning, retail			I	I				yes
Dry cleaning plant*				I	I			yes
Dwelling, single family detached		I	I					NA
Dwelling, single family attached			I					NA
Dwelling, two family			I					NA
Dwelling, multiple family			I					yes
Equipment, truck and trailer rental				I				yes
Fertilizer manufacture*							III	no
Financial institutions				I	I	I	I	yes
Food products processing					I			yes
Government Service Office Uses				II	II	II	II	yes
Greenhouse, wholesale					I	I		yes
Group homes, Class I.A		I	I					NA
Group homes, Class I.B			I					NA
Health, athletic, fitness clubs					I	I		yes
Heavy manufacturing activities*							I	yes
Home occupations		I	I					NA
Hospitals*		III						NA
Hotel or motel				I	I	I		yes
Industrial laundry plant*				I	I	I		yes
Laundromat			I	I				yes
Lumber and building materials sales, wholesale or retail				I	I		I	yes
Manufacturing Uses*					I	I		yes
Aircraft Components Manufacturing*					I	I		yes
Aircraft Manufacturing*							I	yes
Boat Manufacturing*				I		I		yes
Business Equipment Manufacturing*					I	I		yes
Cement Manufacturing*							III	no

USE P	ZONE	R-S	B-1	C-2	M-M	M-1	M-2	Uses Covered In This EIS Analysis?
Consumer Goods Manufacturing, such as food products, clothing, appliances, electronic equipment*				I				yes Except that dog and cat food manufacturing, fish processing and similar activities are not covered
Fabrication of Previously Prepared Materials*						I		yes
Fertilizer Manufacturing*							III	no
Heavy Manufacturing, such as plastics, chemicals, wood products, motor vehicles*							I	yes
Manufacturing Related to Aggregates Extraction*						III		Minor expansions of existing facilities are covered.
Mobilehome park		III						NA
Offices			I	I	I	I	I	yes
Outdoor commercial recreational activities				I	I	I	II	yes
Outdoor storage of bulk materials				I			I	yes
Parking facilities, commercial				I	I	I		yes
Parking facilities, commuter				I	II	I	I	yes
Parking, service, repair of trucks or other large vehicles, equip't				I	I		I	yes
Parks or playgrounds, public		III	III	II	II	II	III	yes
Passenger terminals for public or private transportation service				I			III	yes
Personal service uses			I	I	I	I	I	yes
Petroleum refining							III	no
Printing, publishing, duplication and blueprint services*				I	I	I		yes
Private clubs, lodges				I				yes
Public service buildings or uses		III			I	I		yes
Recycling or compost collection*, minimum risk waste collection, or recycling processing centers				III		II	II	no
Research and testing laboratories				I	I	I		yes
Restaurants			I	I	I	I	I	yes
Retail sales			I	I	I	I	I	yes
Sanitary Landfills*							III	no
Schools: public or private		III	III					yes Note that schools associated with churches are considered ancillary to the church functions and are permitted, except in the M-2 zone where schools are prohibited.  See Section 3.7.1.
Trade schools, vocational schools				I	I	I		yes
Business colleges					I	I		yes
Service Businesses				I	I	I		yes
Service Station, Automobile*			I	I	I	I	I	yes
Service Station, Vehicle*							I	yes
Sewage treatment facilities*							III	Only those pre-treatment facilities in

USE P	ZONE	R-S	B-1	C-2	M-M	M-1	M-2	Uses Covered In This EIS Analysis? <sup>2</sup>
								conformance with the City's Industrial Pretreatment Ordinance or Department of Ecology Standards:
Shopping centers			I	I				yes
Social Service Facilities			III	II				yes
Solid waste transfer station*				III			III	no
Studios for private instruction (art, music, dance, and similar uses)			I	I				yes
Tavern				I			I	yes
Trade Centers, Exhibition Halls				I	II	I		yes
Transportation Activities, including railroads, marine shipping, trade activities, excluding airports							I	no
Transportation Terminals (public) and accessory maintenance facilities					II			yes
Trucking and shipping terminals				I			I	yes
Vehicle fuel sales*			I	I			I	yes
Vehicle Sales, service, repair, painting*				I				yes
Vehicle towing and impound yards				I			I	yes
Vehicle washing facilities				I				yes
Warehouses, wholesale trade				I	I	I	I	yes
Waste to Energy Facilities*							III	no
Water dependent or water related heavy industrial uses							I	no
Welding, fabrication, machine shops				I	I	I	I	yes

\*Emissions from these uses are traditionally regulated by the Puget Sound Air Pollution Control Agency. See Section 3.5 Air Quality and Odors.

**Table 3.1-2: Accessory Activities and Structures  
Analyzed in the SW Everett/Paine Field DEIS**

Activity/Structures	Use/Activity Covered in this EIS?
Above ground fuel tanks, below ground fuel tanks of more than 10,000 gallons, including liquid chemical tanks, powder chemical tanks.	yes (See Sections 3.5 and 3.6 for additional information and potential mitigation measures.)
Binding Site Plans	yes
Clean-up of contaminated sites under MTCA	no, except that cleanup of petroleum contaminated sites from leaking underground fuel tanks is covered under some situations. See Section 3.7 for specific mitigation measures.
Clearing activity/forest practices conducted in conjunction with a building permit.	yes
Clearing not associated with a specific use or permit.	Yes (limited clearing) See Section 3.4.5 for specific limitations and mitigation measures.
Communication facilities, such as switching stations	yes
Communication lines:	Yes: These are categorically exempt from SEPA review.
Culverts in streams.	yes, when needed to provide access to parcels and approved by Fish and Wildlife. Must comply with Everett's Environmentally Sensitive Areas Ordinance, HPA must be obtained. (See Section 3.4 for additional information and mitigation measures.)
Demolition of existing structures.	yes (See Sections 3.5 and 3.6 for additional information and mitigation measures.)
Detention and water quality features, such as detention ponds, infiltration structures, biofiltration swales, wetponds.	yes (See Section 3.4 for additional information.)  Note that regional detention ponds discussed in the drainage basins plans are covered, except that ponds located in streams or wetlands are not covered.
Driveways, driving aisles, pedestrian improvements, including trails.	yes
Fences	yes
Fire hydrants	yes
Grading activity, including excavation and fill associated with a specific building, development or Public Works permit. Temporary stockpiling of earth on sites that have been legally cleared.	yes
Grading activity not associated with a specific development, such as stockpiling of earth on sites where clearing would be required, or preparing a site for development prior to having an approved	no, except that limited grading associated with clearing a site is permitted (see clearing)

Activity/Structures	Use/Activity Covered in this EIS?
site plan review and building permit application.	
Hazardous waste storage, handling and treatment.	yes. See section 3.7.2 of this DEIS
Jet engine run-up test stations	no See Section 3.7.1
Landscaping	yes
Loading areas.	yes
Natural gas distribution lines	exempt from SEPA
Outdoor display areas for retail use	yes
Outdoor Storage	yes
Parking lots (automobiles, trucks, airplanes), including surface parking, parking in structures, bicycle parking facilities.	yes
Recreational facilities constructed on-site for employees	yes
Refuse disposal and recycling areas.	yes
Repair/replacement of dams and reservoirs Facilities in the area that meet the definition of a dam: The Seaway Center detention pond, the Boeing detention pond, and the area where Merrill Creek Parkway crosses Merrill and Ring Creek, and a detention pond north of SR 526 in Merrill and Ring Creek.	no
Retaining walls, rockeries.	yes (See Section 3.3 for additional information.)
Sewer and water lines	yes, except water line across Japanese Gulch and sewer facilities for properties west of Japanese Gulch are not covered.  Sewer and water lines of 8" diameter and less are exempt (if consistent with Water System Plan). See BMPs in Sections 3.3 and 3.4 for construction in and adjacent to ESAs.
Signs	yes, except billboards.
Street frontage improvements and other minor improvements identified in this EIS analysis, including curb, gutter, sidewalks, medians, traffic signals, bicycle lanes, transit facilities (pullouts, shelters).	yes
Major street improvements such as the addition of lanes, construction of new roadways, freeway on-ramps, etc.	no
Temporary construction shacks.	yes
Use of groundwater through wells	no
Vehicle washing areas	yes (See Section 3.4 for additional information.)

## 3.1.2 Mitigation Required by Existing Regulations

### City of Everett

#### Zoning Code

All development must comply with the standards in the Zoning Code. The Zoning Code lists permitted uses, specific standards for setbacks, building height, lot coverage, building design (modulation and materials), parking, landscaping, buffers, open space, signs, screening, fences, outdoor storage, loading areas, refuse disposal and recycling areas, site design that provides pedestrian connections and is transit compatible, site access, and light and glare.

#### Drainage Ordinance and Stormwater Management Manual

Revisions to the City's drainage ordinance were passed on October 23, 1996. The revisions to the ordinance and a new Stormwater Management Manual will be effective February 1, 1997. All development and redevelopment submitting applications for Public Works permits on or after February 1, 1997 must comply with the standards and requirements of the revised drainage ordinance and the new Stormwater Management Manual.

#### Design and Construction Standards and Specifications for Development Manual

All development must comply with the standards in the edition of the City's Design and Construction Standards and Specifications for Development (DCSSD) Manual effective at the time of application for Public Works Permits, or with any document written to replace the DCSSD Manual. This manual includes standards for accessory uses/facilities such as detention and water quality treatment facilities, parking lots, and utilities.

#### Binding Site Plan and Subdivision Ordinances

The City's Binding Site Plan and Subdivision ordinances include standards for undergrounding of utilities.

#### Drainage Ordinance and Stormwater Management Manual

As of February 1, 1997, all development and redevelopment within the City of Everett must comply with the Drainage Ordinance and Stormwater Management Manual.

### **Federal Aviation Authority (FAA) Regulations**

FAA regulations affect height limits. FAA review is required for construction of projects exceeding certain thresholds that may affect navigable airspace. Federal Air Regulation Part 77 and FAA Advisory Circular AC 70/7460-21 (Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace) require developers to notify FAA before construction begins. Notification provides the FAA the opportunity to

- Recognize potential aeronautical hazards to discourage, prevent or minimize the adverse affects to aviation;
- Assure that pilots are alerted to airspace changes made as a result of the structure;
- Recommend appropriate marking and lighting to make such objects visible to pilots; and
- Depict obstructions on aeronautical charts for pilotage and safety.

Any facility greater than 200 feet in height above ground level must notify the FAA. In addition, notification is required for projects located within 20,000 feet of Paine Field, if the object

exceeds a slope of 100:1 horizontally (100 feet horizontally for each 1 foot vertically above the runway elevation) from the nearest point of the nearest runway. See Figure 3.1-3 of the EIS, the Airport Airspace Plan for the location of areas around Paine Field affected by Part 77. The original map is available at Paine Field Airport.

### 3.1.3 Recommended Mitigation Measures

1. **Height:** All development with structures more than 200 feet in height and those within 20,000 feet of Paine Field must check with the FAA to determine if notification is required. (SEPA Land and Shoreline Use Policies)
2. Section 2.4 of the DEIS contains a discussion of projects with previous approvals. The City should take steps to eliminate all of the contract rezones and those master plan approvals without detailed site plans (future phases of Seaway Center, Intermec, and Fluke Manufacturing). This would result in all projects complying with the latest adopted standards, except those projects on master plan sites that have completed SEPA review for detailed site plans. (SEPA Land and Shoreline Use Policies)

**This is a significant policy decision.**

3. Where buffers are required adjacent to residential areas, an analysis of hazardous trees in the buffer must be completed by a professional arborist. Any trees that are hazardous (i.e., are diseased, damaged or leaning and are likely to fall on development) must be removed prior to issuance of occupancy permits, and preferably, prior to construction of structures on the site. Where they would not create a hazard, the trunks of these trees must be left for snags. For each tree cut, three coniferous trees must be planted. However, for each tree left as a snag, one coniferous tree must be planted. The arborist must submit a tree removal and replacement plan to the Planning Department and mark in the field all trees to be removed. The Planning Department must approve the tree removal and replacement plan prior to any activity in the environmentally sensitive area. Large woody debris should be retained where it would not create a hazard, such as causing flooding due to alteration of the natural hydrology of a stream system. (SEPA Plant and Animal Policies and Land and Shoreline Use Policies)
3. Mukilteo School District Property. The City should revise the Zoning Code to eliminate requirements for Special Property Use hearings on the Mukilteo School District property for expansions or modifications to School District uses, since sensitive land uses are not located adjacent to the property. (SEPA Land and Shoreline Use Policies)
4. Development Adjacent to the Edge Shed  
The City should adopt new standards or confirm existing standards that apply to all developments adjacent to residential properties. (This is particularly important if contract rezones are eliminated.) Standards could be different for properties that are separated from residential areas by major roadways<sup>3</sup> or environmentally sensitive areas (where natural buffers

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<sup>3</sup> The Zoning Code could be revised to have the standards for industrial developments be based on distance from residential lots, rather than the zoning boundary.

occur), and projects that are substantially below or above the elevation of the residential areas (e.g., portions of the Associated Sand and Gravel and Bhend properties).

Currently, buffers for properties in similar zones vary from current zoning standards due to previous approvals. For example, the Bhend, Intermec and Seaway Center properties all abut the residential areas to the south of Mukilteo Blvd. Buffers required for the Bhend and Intermec properties in the M-M zone are up to 150' wide, while the Zoning Code requires a minimum of 25 feet of landscaping and a 50 foot building setback. The minimum 75 foot buffers required on the Seaway site in the M-1 zone are similar to that which would be required under the current Zoning Code. See EIS Figures 3.1-5a, b, and c for examples of landscape buffer standards.

Residential properties abutting the Subarea could be responsible for providing some of the buffer between uses. Either the residential property owners or the industrial property owners could be required to purchase landscaping and plant the buffer on the residential lots. Realistically, this could only be required in conjunction with new residential subdivisions, and the buffer conditions would have to be placed in the subdivision approval process. The subdivision conditions could require that a buffer be planted with evergreen trees and shrubs unless healthy non-hazardous evergreens can be preserved.

**This is a significant policy decision.**

5. Views

When approving buffers adjacent to residential areas that allow views through the buffers from the development, the Planning Director shall ensure that the development will be substantially obscured from the residential areas. The Planning Director shall require view analysis as necessary. (SEPA Land and Shoreline Use Policies)

6. Rockeries and retaining walls greater than 4 feet in height and 40 feet in length that are visible from adjacent properties or public right of way shall be substantially screened with landscaping or architecturally designed and landscaped to break up the appearance of length/height in a manner approved by the Planning Director. Rockeries and retaining walls within required landscape areas shall not be counted in the required landscaping width. (SEPA Land and Shoreline Use Policies)

7. Historic and Cultural Preservation

If any archaeological resources or human remains are found during construction, the project proponent shall contact the Tulalip Tribes, the City of Everett Planning and Community Development Department, and the State Office of Archaeology and Historic Preservation. This contact will initiate a consultation process for determining subsequent actions. (SEPA Land and Shoreline Use Policies)

### 3.1.4 Other Potential Mitigation Measures

1. The City could increase enforcement of Zoning Code violations. (This would require additional staff.) Frequent violations include storage of wooden pallets and other items in areas approved for parking lots or loading/maneuvering areas rather than in screened storage areas, and lack of maintenance of required landscaping. Since adoption of the 1990 Zoning Code, the City

has required 2-year maintenance bonds for landscaping. This has resulted in better maintenance and plant establishment, at least within the first 2 years of planting.

## **3.2 TRANSPORTATION**

### **3.2.1 Proposed Threshold**

Any development that exceeds 30 peak hour trips per net developable acre must complete additional traffic analysis. (This is 2 times the average PM peak hour trips per acre projected.) Net developable acres is the area of the site minus environmentally sensitive areas.

The EIS identifies 5 screenlines around the Subarea. Screenlines are lines drawn across several routes to measure the flow of trips crossing the line. The City shall monitor traffic at the 5 screenlines annually. If traffic at two or more screenlines exceeds capacity, the City shall halt the expedited permit process until additional traffic analysis is completed and the Subarea Plan or traffic mitigation program is confirmed or modified by City Council. (Note that capacity exceedances at screenlines may be due to unforeseen impacts generated outside the Subarea, and the review process for development proposals outside the Subarea may also be affected.)

State and Federal ambient air quality standards must be met.

Additional SEPA analysis will be required for construction of new transportation facilities and those that add new lanes. Frontage improvements may require additional SEPA analysis. System improvements other than planned system improvements may be substituted when environmental or financial restrictions are determined to make the planned improvements infeasible, and the substituted improvements are included in the City's Transportation Improvement Program (TIP). Proposed facilities may be conditioned, modified, or even rejected in the review process.

### **3.2.2 Mitigation Required by Existing Regulations**

1. All developments must comply with City of Everett Ordinances and Standards for transportation improvements, site design, and transportation impact mitigation, including, but not limited to the following:
  - All projects must comply with the City's Commute Trip Reduction Ordinance, which requires certain businesses to implement programs to reduce single occupancy vehicle commute trips and vehicle miles traveled per employee. The ordinance applies to those employers who employ 100 or more "affected" employees at a single worksite. An affected employee is a full-time employee who reports to the same worksite between 6:00 am and 9:00 am on two or more weekdays for at least 12 continuous months. These commute trip reduction programs would be aided by public transit capital investments such as park and ride lots.
  - Individual developments must be designed to accommodate alternative methods of commuting such as bicycles, walking and transit. Walkways should connect buildings with transit facilities and public sidewalks. Site design must be approved by the City Engineer. The Everett Planning and Community Development Director may also require or approve reductions in parking when a Transportation Management Plan is proposed

which would result in decreased usage of single occupant vehicles and increased use of alternative modes of travel.

- Location of transit stops and other related improvements such as shelters and benches must be approved by the City. Transit stops/pullouts must be constructed on site frontages as required by the City Engineer.

Existing regulations that will apply to some or all proposals include the following:

### **City of Everett**

Interim Traffic Mitigation Ordinance (ITMO). This ordinance was enacted in 1989 under SEPA and has been used by the City on an interim basis since that time. It is expected to be replaced by a permanent ordinance in 1996 or early 1997 upon completion of the SW Everett Subarea Plan. The ordinance now requires traffic analyses for development proposals which exceed specific thresholds. It also requires mitigation of impacts by constructing improvements and/or contributing a fair share of improvement costs. The areawide traffic analysis provided in the SW Everett EIS will replace individual ITMO traffic studies for most off-site traffic impacts related to this Subarea. However, studies relating to site access, specific level of trip making, and establishing the development's specific share of improvements may continue to be required under the revised ordinance. Other Subareas may continue to require areawide analyses until specific subarea plans are completed.

Commute Trip Reduction Ordinance (EMC 46.68). The Commute Trip Reduction (CTR) ordinance requires employers with 100 or more affected employees to develop and implement programs encouraging employees to reduce vehicle miles traveled and minimize their use of single occupant vehicles. Each program includes elements that are designed to help the employer achieve CTR goals. Employers submit their programs to the City for review and approval and then provide annual progress reports.

Driveways (EMC13.16) This ordinance provides the City Engineer with authority to review and approve driveway access to properties. Access standards are specified in the ordinance.

Street Construction and Private Construction (EMC 13.68) This ordinance requires developers to improve street frontage to City standards, including curbs, gutters and sidewalks. It is applied in conjunction with the issuance of building permits for new construction as well as additions, alterations or repairs which exceed half the value of the existing improvement.

Public Right-of-Way Design and Construction Standards (EMC 13.76). This authorizes the Mayor or Public Works Director to develop and issue a manual of standards and specifications on this subject. The manual establishes requirements for submittals, permits, guarantees and warranties. It covers roadway types, easements, fire access, parking, traffic control, traffic studies, utilities and other design details. Project approval by Engineering and Public Services is required in addition to other approvals by the Planning Department.

Parking Standards in the Zoning Code (EMC 19.34). Parking requirements are based on type and size of the use, with the Planning Director authorized to reduce them by up to 10% if certain criteria are met, or by more than 10% if a Transportation Management Plan for large

employers is submitted. The code includes standards for location, paving, layout and drainage following standards of the City Engineer. Access driveways and internal vehicle and pedestrian circulation must also be approved by both the Planning Director and Traffic Engineer. In addition, the Traffic Engineer may require joint use of driveways.

Off-Street Loading Standards in the Zoning Code (EMC 19.34). The Code requires off-street loading areas separate from parking areas for most non-residential uses. The Traffic Engineer may modify requirements for size and number of berths.

Transportation Compatibility Section of the Zoning Code (EMC 19.39.165). This requires that uses be designed so as to encourage the use of public transportation, pedestrian access and most efficient use of the existing transportation system. It references "A Guide to Land Use and Public Transportation" as a guide in planning and locating buildings, parking, landscaping, pedestrian circulation and other site improvements. Projects must provide pedestrian connections and protection from the weather.

### **3.2.3 Recommended Mitigation Measures**

1. All development must comply with the traffic mitigation program adopted in the Subarea Plan.

Figure 1.3-1 in the EIS shows the proposed mitigation improvements for all EIS alternatives. The City would commit to a full range of possible mitigation, including mitigation in Snohomish County. The program would be financed primarily by public funds, but supplemented by developer fees. City Council must decide the amount of the fee, and an ordinance must be adopted to implement the traffic fee. At the time a development is proposed, project proponents would no longer be required to complete traffic studies addressing system-wide impacts. Rather, they would pay a fee based on their project's share of the overall mitigation program. For purposes of the EIS, the fee is estimated to be \$1,000 per peak hour trip, but the fee could vary based upon the mitigation program adopted and City Council decisions regarding the percentage of financing that should be provided by developers.

The program includes the following mitigation measures:

- Proposed mitigation includes expansion of lane capacity within the impact shed, primarily through expansion of existing arterials. Six arterials would be widened, adding a total of 20 new lane-miles of capacity. Two new arterial sections would be added to the system, adding 6 new lane-miles. Studies to potentially add an additional 18 lane-miles are recommended. Revisions to 2 intersections are included, as well as an option to modify another and add a new interchange. Construction of these improvements will be spread out through the year 2012. The potential new interchange at Hardeson/SR526 could be vitally important to the Subarea, but requires additional analysis.
- Person capacity would be expanded primarily by adding transit capacity and high occupancy vehicle (HOV) lanes to arterials and freeways or HOV treatments to arterials

that make use of buses and carpools easier. Transit capacity investments would include additional coaches.

- Systems management (improvements that increase the effective capacity of facilities without adding lane capacity) would be promoted primarily by the signal program and minor revisions to arterials. Systems management improvements could include signal modifications (such as changing timing), channelization, protected turning movements, ramp metering on freeways, etc.
- Non-motorized facilities (sidewalks, bicycle storage areas, bicycle lanes, etc.) are assumed within the design of all route improvements. A separate annual program is identified as mitigation, as well as non-motorized projects that may be defined as part of the Neighborhood Traffic Mitigation program.
- A Neighborhood Traffic Improvement Program would be established. This fund would be equivalent to ten percent of the value of planned system improvements. An administrative policy and procedure would be established to determine priorities for specific neighborhood traffic projects, and an annual priority of neighborhood projects would be established. The procedure could include working with the Council of Neighborhoods and Snohomish County to create a list of potential projects, holding public meetings to take comment on the list, and having a committee and City Council determine the specific improvements to be made. Note that this measure includes a commitment to a program for mitigating impacts, and does not commit to construction of specific projects.

This annual program would permit each neighborhood to jointly (with the City) devise methods of abating impacts caused by increased traffic. Projects may include diverting trips back to primary routes, incorporation of various safety or buffering features along local routes, and improved pedestrian separation.

Diversion of trips is recommended where appropriate, from areas such as neighborhoods to areas with facilities designed to accommodate larger volumes, such as freeways and arterials. Specific measures for diversion will be developed as part of an annual Neighborhood Traffic Mitigation program. (SEPA Transportation and Land and Shoreline Use Policies)

**This is a significant policy decision.**

2. Unless otherwise approved by the City Traffic Engineer, each development must submit a design traffic study that analyzes access capacity, site-specific safety issues, and site-specific construction impacts. The Traffic Engineer will use this study to set the design criteria that will apply to development proposals. Improvements necessary for safe and adequate access to a site are the responsibility of the developer, including traffic signals and roadways installed to provide direct access to a site. Facilities such as bus stops and shelters may also be required. Decisions by the Traffic Engineer may be appealed to the Hearing Examiner. (SEPA Transportation and Land and Shoreline Use Policies)

**This is a significant policy decision.**

3. The City will monitor traffic counts at "hotspot" congested intersections to determine if ambient air quality standards are likely to be violated. Results will be forwarded annually to PSAPCA and the Department of Ecology, which could perform field monitoring if necessary. (SEPA Air Policies)
4. Transit routes/schedules and high occupancy vehicle information must be prominently displayed for employees at on-site commute information centers and near associated walkways. Preferential parking space locations for carpools and vanpools must be provided on all sites. Buildings must incorporate bicycle and pedestrian amenities such as lockers, shower rooms, and bicycle stands. (SEPA Transportation and Land and Shoreline Use Policies)

### **3.2.4 Assumptions Related to Recommended Mitigation Measures**

1. Improvements to some transportation facilities may present serious environmental challenges as identified in the DEIS. In some cases, such as Mukilteo Blvd., these areas are identified as constrained due to prior decisions related to environmental conditions. These corridors are not proposed for construction.
2. Some transportation facilities require further analysis. These include extensions to 112th St. and 4th Ave. The environmental issues related to such projects must be resolved in separate environmental analyses. Substitute projects for these planned system improvements may result from such environmental analyses.
3. Some corridor improvements are both deferred until after 2012 and flagged for considerably more intense study. (The analysis assumes these improvements will not exist.) An example is the extension of Paine Field Blvd. to the waterfront.
4. The mitigation strategy for transportation features projects that produce greater efficiency in the transportation system and result in reduced emissions from mobile sources. The expansion of person capacity (achieving greater numbers of persons per vehicle), the encouragement of demand management (reducing the demand for vehicles), and the promotion of non-motorized alternatives (such as walking or bicycling) are included in the strategy.
5. Improvements to vehicular circulation that reduce the amount of "stopped delay" -- the primary contributor to mobile pollution -- are promoted. These improvements have assumed continuation of existing federal, state, and City funding levels.
6. Expansion of the person-carrying capacity of the transportation system, promotion of demand management programs among employers, and the establishment of facilities that permit easier use of non-motorized alternatives all contribute toward lower consumption of energy resources.

### 3.2.5 Other Potential Mitigation Measures

1. Truck routes could be established to assure that these vehicles use facilities with adequate safety features. The establishment of truck routes may be employed to assure that these vehicles use roadways that are away from neighborhoods and are better designed to accommodate this type of traffic. If City Council determines that truck routes are appropriate, additional analysis would be completed before Council designates specific routes. Such a designation would be a separate action which could proceed outside this Subarea Plan.
2. At a minimum, the current proportion of transportation funding allocated to maintenance should continue.
3. The City, County and State could increase funding for transportation maintenance.
4. The City could seek to improve funding at the state level.
5. The City's Pavement Management System monitors system condition and schedules for the Subarea and adjacent areas within corporate boundaries. For facilities with higher ratios of truck traffic and heavy axle loads, the City could adjust maintenance schedules to reflect the greater impact on pavement life.

## **3.3 EARTH/GEOLOGICALLY HAZARDOUS AREAS**

### **3.3.1 Proposed Threshold**

All slopes that are not designated environmentally sensitive may be modified. Major cuts and fills will likely occur to make sites suitable for development.

Sites that are designated environmentally sensitive may be modified only in compliance with environmentally sensitive areas regulations. Disturbance of environmentally sensitive areas to construct necessary utilities will be limited to the minimum necessary for construction.

Sites designated as geologically hazardous areas may be modified if approved by the Planning Director based upon review of a geotechnical report that shows the proposal meets the criteria of Section 37 of the Zoning Code. The report must show that the modifications will not create a hazard to the subject property or surrounding properties.

The EIS does not evaluate the impacts of earth removed from the Subarea and placed on sites outside of the Subarea. Additional SEPA analysis will be required for placement of fill outside the Subarea.

The Subarea Plan and EIS do not evaluate the impacts of new mining activity. Additional SEPA review will be required for new mining activities.

### **3.3.2 Mitigation Required by Existing Regulations**

All development must comply with the state and local regulations in effect at time of application for permits, except that some Zoning Code standards may not apply to projects with previous approvals. All applicable permits must be obtained. These requirements include, but are not limited to the following:

#### **Department of Ecology**

The Department of Ecology issues Baseline General Permits for storm water discharges on sites where clearing and grading of more than five acres will occur and where storm water from a construction activity can reach surface water or storm sewers. This permit is required in addition to any other local or state government permits for erosion and sedimentation control.

More detailed information of exact requirements for both Baseline General Permits and NPDES permits is available through the Washington State Department of Ecology.

#### **City of Everett**

##### Zoning Code

Section 37 of the Zoning Code (EMC 19.37.040) designates the following as "geologically hazardous" areas:

- slopes of 40% or greater;
- landslide hazard areas;
- seismic hazard areas;
- erosion hazard areas which are associated with another environmentally sensitive area (ESAs); and
- other areas which the City has reason to believe are geologically hazardous.

Geologically hazardous areas must be protected with 25-foot buffers measured from the top, toe, and sides of such areas. Modifications to this requirement are allowed only if a geotechnical report is submitted which shows that the development would not create a hazard to the subject property and surrounding properties.

Certain activities that are exempt from the requirements of the Environmentally Sensitive Areas Ordinance and may occur on slopes designated environmentally sensitive include: emergencies; relocation of some utilities; and remodeling and maintenance of existing structures, roads, parks, and utilities. While exempt, these activities must still be completed per best management practices.

Site regrading often results in the need for construction of retaining walls and rockeries. Section 39 of the Zoning Code (EMC19.39.140) regulates when retaining walls and rockeries can be located in required building setback areas. In general, rockeries and retaining walls greater than 36 inches high cannot be located in required setback areas.

#### Uniform Building Code (UBC)

Structural design of buildings in landslide and seismic hazard areas is regulated by the Building Division through implementation of the Uniform Building Code standards for Seismic Risk Zone 3. This designation infers a seismic event with a magnitude of 7.5.

All rockeries and retaining walls greater than 8 feet high must be designed by a structural engineer.

#### Design and Construction Standards and Specifications Manual

The City's Engineering and Public Services Department permits and inspects land alteration activities through requirements of this Manual. The Manual contains many standards which mitigate the impacts to earth resources, including erosion/sedimentation control requirements for sites based upon the site size, location, and slopes; temporary construction entrances; seasonal limitations on land alteration activities; preservation and restoration of vegetation; and requirements for submittal of erosion control plans.

Erosion and sedimentation control plans must be reviewed and approved by the Engineering and Public Services Department. At a minimum, specific erosion control measures listed in the Manual must be provided. Additional measures may be required by Engineering and Public Services. Erosion control measures must be constructed and operational prior to initiation of clearing, grubbing, or grading operations.

City streets must be kept clear of dirt and debris at all times during construction. Dust suppression and street cleaning must occur as directed by the Public Works Inspector.

Measures should include

- Cleaning the tires of construction vehicles before they leave the site.
- Requiring that trucks carrying earth cover all loads.
- Implementing watering programs on all unsurfaced construction sites and soil stockpile areas during dry weather to reduce dust emissions.
- Minimizing open soil stockpiling. Hydroseeding or other soils stabilization methods approved by the City should be implemented for any soils storage or stockpiling.

Public Works requirements for stormwater control will also mitigate the impacts to earth. For example, discharge of stormwater is not permitted on steep slopes where it can cause erosion and slope failures.

#### Draft Stormwater Management Manual

The manual includes the following seven basic principles of erosion and sedimentation control, modeled after the Department of Ecology's Stormwater Manual:

1. Plan the development to fit the particular topography, soils, drainage patterns, and natural vegetation of the site.
2. Minimize the extent of the area exposed at one time and the duration of exposure.
3. Stabilize and protect disturbed areas as soon as possible.
4. Keep runoff velocities low.
5. Protect disturbed areas from storm water runoff.
6. Retain sediment within the corridor or site area.
7. Implement a thorough maintenance and follow-up program.

Also included within the Stormwater Manual are definitions for seasonal limitations, a soil categorization for the rating system, and best management practices for erosion and sedimentation control.

#### Subdivision and Binding Site Plan Ordinances (EMC Title 18)

These regulations require subdivisions and other developments to design projects which conform to existing topography to the maximum extent possible. The intent of these requirements is to preserve natural landforms and reduce impacts on surrounding properties and environmentally sensitive areas.

#### Projects with Previous Approvals

Different standards may apply to projects with previous approvals. For example, the Seaway Center Master Plan approval requires that areas with slopes of more than 25% be set aside as open space/native growth protection areas. However, development can occur up to the top of bank, rather than setting back 25 feet from the top of bank as required by existing codes.

(Note that the Land Use Section includes a recommendation that City Council consider eliminating previous contract rezones and master plan approvals. If that were to occur, Seaway

Center would be able to modify areas with slopes between 25% and 40% that are not associated with streams and wetlands.)

### 3.3.3 Recommended Mitigation Measures

#### Prior to Construction

1. Construction management plans must be reviewed and approved by the Directors of the Planning and Community Development Department and the Engineering and Public Services Department prior to the issuance of permits allowing construction of any facilities located within 50 feet of an environmentally sensitive area (steep slope, stream, wetland, landslide hazard area, etc.) and associated buffer. The construction management plan must include the following minimum measures:
  - a. Specific erosion controls to be implemented prior to authorizing any construction activities which will impact an environmentally sensitive area as defined by the City's environmentally sensitive area regulations.
  - b. For any facilities on or adjacent to erosion or landslide hazard areas, the construction management plan must address all mitigation measures identified in the geotechnical report approved by the Planning Director.
  - c. Implementation of best management practices to control erosion both during and after construction, including compliance with the City of Everett's Design and Construction Standards and Specifications Manual and the Stormwater Management Manual.
  - d. Construction schedule, status update reporting requirements, and contingency provisions to become effective if the schedule is not met. (SEPA Earth and Water Policies)
2. The City shall require submittal of a geotechnical report when facilities are proposed to be located in areas which contain potentially moisture sensitive soils. Moisture sensitive soils may include, but are not limited to, Tokul gravelly loam, McKenna gravelly silt loam, Teric Medisaprists, and Mukilteo muck. The following minimum mitigation requirements shall be met for all earthwork for facilities on moisture sensitive soils unless otherwise recommended in the geotechnical report:
  - Limit site disturbance by using tracked equipment, where possible, within the excavation area.
  - Remove standing water from the excavation area. Outfall water should be filtered or run through a sedimentation basin.
  - Use surface erosion measures in areas in which surface water is anticipated to drain from the excavation area. Require control measures to be designed by a professional civil or geotechnical engineer, to prevent offsite surface drainage of sediments. Methods may include, but are not limited to, use of silt fences and/or settlement ponds.
  - Implement a plan to minimize the extent to which these soils become disturbed. Soils which become disturbed, and which are above their optimum moisture content, should

either be allowed to dry to within their optimum moisture content and be re-compacted, or be removed from the construction site. (SEPA Earth and Water Policies)

3. Any water quality enhancement or detention facilities proposed near steep slopes will require detailed geotechnical analysis and design that documents and ensures their safety. (SEPA Earth and Water Policies)
4. Prior to issuance of grading permits for removing earth from a site, the applicant must demonstrate that permits have been obtained for placement of the earth off-site. (SEPA Earth and Water Policies)

#### During Construction/Earthwork

5. All earthwork within a geologically hazardous area or its required buffer must be performed under the supervision of a professional civil or geotechnical engineer. The engineer must provide certification to the City that all work was done in compliance with requirements set forth in the City approved geotechnical report. (SEPA Earth and Water Policies)
6. In order to minimize erosion during construction, all soil piles shall be covered with plastic sheeting or other impervious covering staked to the ground or anchored with rocks or sandbags. Berms, earthen or otherwise, must be constructed at the perimeter of excavated areas to prevent adjacent site runoff from entering the excavations. (SEPA Earth and Water Policies)
7. Mining sites must comply with the Department of Natural Resources reclamation requirements. On sites with existing mined slopes which are not subject to DNR regulations, slopes must be remediated to 1.5 horizontal : 1 vertical (1.5H:1V), except for glacial till slopes which can be remediated to 1H:1V slope if approved by a qualified geotechnical engineer. All remediated slopes must be covered with top soil material that will support vegetation, jute matting or equivalent; and be revegetated with hydroseed, groundcover and shrubs. (SEPA Earth and Water Policies)
8. Temporary slopes within native glacial soils shall be limited to a maximum angle of 1/2 foot horizontal (H) to 1 foot vertical (V). Temporary slopes within fill soils shall be limited to a maximum angle of 1H:1V. Temporary slopes must be covered with an impermeable membrane, such as visqueen or mulch, in order to prevent precipitation from coming in contact with the soils. (SEPA Earth and Water Policies)

Permanent slopes steeper than 25% shall be designed by a professional civil or geotechnical engineer. The design should present appropriate erosion control measures which may include: hydroseeding, erosion control blankets, rip-rap, jute matting, and visqueen. (SEPA Earth and Water Policies)

9. Grading/filling must not adversely affect the hydrology of streams and existing or created wetlands. (SEPA Earth and Water Policies)
10. Grading/filling on-site shall not adversely affect adjoining sites. (SEPA Earth and Water Policies)

11. Clearing limits shall be staked, flagged, and/or fenced off prior to initiation of any clearing or land alteration activities as approved by the Engineering and Public Services Inspector. Where the clearing limit is the edge of a geologically hazardous area or its buffer, the clearing limit shall be fenced during construction with a chain link or solid wooden fence a minimum of 4 feet high.

Following completion of construction and prior to issuance of occupancy permits, a permanent fence must be provided along the edge of the buffer. The fence must be split rail or an alternative design approved by the Planning Director. Environmentally sensitive areas signs must be posted on the fence. (SEPA Earth and Water Policies)

11. Removal of native vegetation within the building setback and buffer areas must be avoided when possible. (SEPA Earth and Water Policies)
12. Project proponents should try to retain topsoil on sites to the maximum extent feasible. (SEPA Earth and Water Policies)

### **3.3.4 Other Potential Mitigation Measures**

1. The City could require that all earthwork be performed under the direct supervision of a professional civil or geotechnical engineer.
2. See the Land Use section (Section 3.1) for recommended standards to mitigate the visual impacts of large retaining walls and rockeries, such as landscape screening of walls visible from adjacent properties and height limitations.
3. The City could require that clearing and grading be limited to the minimum necessary for the development.

## 3.4 SURFACE/GROUNDWATER, PLANTS AND ANIMALS

### 3.4.1 Proposed Threshold

If a priority species is mapped on or within 300 feet of a site or documented on the site by a qualified individual, additional SEPA review may be required. This will require coordination with the Department of Fish and Wildlife to determine appropriate mitigation measures. These may include, but are not limited to, seasonal restriction on construction, provision of buffers, and preservation of existing vegetation.

Note: If an endangered plant or wildlife species is found on a site prior to or during development, the developer must comply with all applicable federal, state, and local regulations, including preparation of habitat management plans. (The Subarea Plan preserves priority habitats as defined by the Department of Fish and Wildlife - urban natural open space, riparian corridors, and wetlands.)

### 3.4.2 Mitigation Required by Existing Regulations

All development must comply with the federal, state, and local regulations in effect at the time of application for permits, except that some Zoning Code standards may not apply to vested projects (projects with previous approvals). All applicable permits must be obtained.

Existing regulations that will apply to some or all proposals are described below. Please note that permit regulations change. Contact the appropriate agency for specific proposals.

#### Groundwater Regulations

##### Department of Ecology

Requirements for Obtaining New Groundwater Rights. The Washington State Department of Ecology is responsible for the allocation of groundwater rights. The following procedures are required for all potential groundwater users:

- An application must be filed with the Ground and Surface Water Section of Ecology indicating a specific amount of water requested and specific purpose.
- A public notice and comment period must occur.
- Assuming no public opposition, Ecology will issue a preliminary permit for well drilling and testing.
- Ecology will then perform a review of the investigation along with an evaluation of the following:
  - Are adequate amounts of groundwater available?
  - Will it be put to a beneficial use?
  - Is the use in the public interest?
  - Will the use be in conflict with existing uses?
- Ecology performs a hydrologic review.

- Upon completion of a review of the hydrologic report, and a final check by Ecology, a Final Issue of Water Rights would be prepared, or the permit would be denied.

### **Stormwater, Surfacewater, Stream and Wetland Regulations**

#### **Federal Requirements: Environmental Protection Agency (EPA)**

Clean Water Act. A National Pollutant Discharge Elimination System (NPDES ) permit, administered by the US Environmental Protection Agency and/or Washington State Department of Ecology, will be required for clearing and grading activities if the site disturbed by land alteration activities is greater than or equal to 5 acres. The EPA issues National Pollutant Discharge Elimination System (NPDES) permits for federal facilities.

A permit for stormwater discharge to surface waters may or may not be required depending upon the future use of the site.

#### **Federal Requirements: U.S. Army Corps of Engineers**

Clean Water Act - Section 404. The U.S. Army Corps of Engineers (COE) regulates the excavation and discharge of fill materials into wetlands and other waters of the US. The Nationwide Permit Program was adopted by the Corps to expedite authorization of projects that are considered by the Corps to have minimal impacts on the environment. The Nationwide Permit Program covers 37 categories of minor activities, including road crossings, utility line bedding and backfill, headwaters discharges, some fill activities in isolated wetlands, and restoration of wetlands. The applicant is required to notify the Corps for some nationwide permits.

Individual permits are required for fill of wetlands not authorized under Nationwide Permits, including:

- fill in open water and wetlands adjacent to streams/rivers/lakes located below the headwaters (the point where the mean annual flow of the stream is greater than or equal to 5 cubic feet per second); and
- fill in tidal waters or adjacent wetlands.

An alternatives analysis is required for individual permits. This analysis must show that there is no less environmentally damaging practicable alternative to the proposed excavation or filling of the wetlands. The Corps can require mitigation for wetland excavation or fill.

A Water Quality Certification from the Department of Ecology is required for all Section 404 permit activities by the COE. Some certifications have been issued under nationwide permits.

Any project proposing fill or alteration of wetlands must contact the US Army Corps of Engineers to determine if a permit is required. All applicable permits must be obtained.

## **Washington State Requirements: Department of Ecology**

Clean Water Act: 401 Water Quality Certification. The Clean Water Act requires certification by states that projects will not adversely affect water quality or violate state aquatic protection laws. The Department of Ecology coordinates the comments of all state natural resource agencies for required permits.

The Department of Ecology reviews the Corps nationwide permits issued under Section 404 of the Clean Water Act and either approves the permits, denies water quality certification for permits that are determined to have the potential to cause more than minimal impact to the environment, or certifies the permits with additional State conditions. Projects that fall under nationwide permits that were approved/certified by the state do not have to obtain individual Water Quality Certifications. Individual Water Quality Certifications must be obtained for projects that fall under nationwide permits that were denied, projects that cannot meet State conditions for nationwide permits, and projects that must obtain individual Corps permits.

Federal Clean Water Act and State Water Pollution Control Act (RCW 90.48). The Department of Ecology is responsible for issuing National Pollution Discharge Elimination System (NPDES) permits for non-federal projects. Any project which disturbs five acres or more of total land area during construction, and/or which will discharge stormwater to surfacewater or to a storm sewer, must apply for coverage under Washington State Department of Ecology's Baseline General Permit for Stormwater Discharges Associated with Industrial Activities. The stormwater permit is meant to reduce the release of contaminants in stormwater discharges, and requires operators of industrial facilities to develop a stormwater pollution prevention plan. Constructed facilities which discharge stormwater may also have to obtain NPDES permits.

Industries required to obtain a stormwater permit include, but are not limited to:

- Heavy manufacturing facilities that fall under specific Standard Industrial Classification (SIC) codes, including lumber and wood products; paper and allied products; chemical and allied products; metal industries; and ship and boat building and repairing.
- Mining and oil and gas facilities.
- Hazardous waste treatment, storage or disposal facilities.
- Landfills, land application sites.
- Recycling facilities.
- Transportation facilities.
- Light manufacturing facilities that fall under specific SIC codes need a permit if they have industrial activity exposed to stormwater, including food products; textile products; apparel products; furniture and fixtures; paints, varnishes, lacquers, enamels, and allied products; drugs; measuring, analyzing, and controlling equipment, etc.

Water Quality Standards for Surfacewaters of the State of Washington (WAC 173-201A). The State Water Quality Standards include criteria for surfacewater characteristics such as temperature, pH, turbidity, dissolved oxygen, and fecal coliforms levels. These criteria vary based upon the classification of the surfacewaters. All of the streams in the Subarea except Swamp Creek are classified as Class A (excellent) surfacewaters. Swamp Creek and its tributaries are Class AA (extraordinary) surfacewaters. WAC 173-201A also establishes criteria for toxic substances such as ammonia, arsenic, cadmium, chromium, copper, lead, nickel and zinc. These standards are the same for all classes of surfacewaters.

The Department of Ecology is responsible for implementation and enforcement of Water Quality Standards. WAC 173-201A requires that waste discharge permits, whether NPDES permits or otherwise, shall be conditioned so the discharges authorized will meet the water quality standards. However, the Department of Ecology can issue Short Term Water Quality Modification permits which allow the criteria to be modified on a short-term basis under specific conditions.

Sediment Management Standards, WAC 173-204. Washington state sediment quality standards provide a regulatory and management goal for the quality of sediments throughout the state. The standards provide chemical concentration criteria, biological effects criteria, human health criteria, and other toxic, radioactive, biological, or deleterious substances criteria which identify surface sediments that have no adverse effects, including no acute or chronic adverse effects on biological resources, and no significant health risk to humans.

Sediment source control standards are used as a basis for controlling the effects of point and nonpoint source discharges to sediments through the National Pollutant Discharge Elimination System (NPDES) federal permit program and state water quality management permit programs.

#### **Washington State Requirements: Department of Fish and Wildlife (DFW)**

Hydraulic Project Approvals. An Hydraulic Project Approval (HPA) may be required from the State Department of Fish and Wildlife for work in streams or for discharge of stormwater to wetlands or streams. An HPA will be required for work in stream systems. An HPA is required for any activity within the ordinary high water line of state waters. Work occurring in wetlands that are located adjacent to marine bodies, streams, or lakes typically require an HPA. In addition, isolated wetlands with an open water component may also require an HPA in order for activities to occur within the ordinary high water mark. Any work that affects the waters or the aquatic beds will need an HPA. Many types of construction activities occurring in freshwater will require an HPA including the following:

- streambank protection
- pile driving
- conduit crossing
- dredging
- pond construction
- log, log jam, or debris removal
- installation or maintenance (of equipment) of water diversions
- construction of bridges
- channel change or realignment
- culvert installation
- gravel removal
- placement of outfall structures
- mineral prospecting

An HPA may also be required for discharge of stormwater to wetlands or streams.

#### **Local Requirements: City of Everett**

Storm and Surface Water Management Regulations - General. All projects within the City of Everett must comply with the Stormwater Standards in effect at time of application for permits

including the Design and Construction Standards and Specifications, the Drainage Basin Plans, Surfacewater System Ordinance, Drainage Ordinance, and Stormwater Management Manual.

Detailed drawings in accordance with City Drainage Ordinances and City Design and Construction Standards must be submitted to the Engineering and Public Services Department showing storm drainage and temporary construction erosion control. Engineering and Public Services Department approval of these drawings is required prior to any permits being issued. All improvements shall be completed, approved, and warranted before Occupancy Permits are issued. Stormwater detention/retention, quality protection, and treatment requirements for any project shall be those requirements in effect at the time of application for Public Works permits.

The City of Everett has recently revised the Public Works regulations related to storm and surface water management. Both the existing and revised regulations are discussed below. Existing regulations include the Design and Construction Standards and Specifications Manual, Drainage Basins Plans, Surfacewater System Ordinance, and Drainage Ordinance. The City recently amended the City's Drainage Ordinance and is finalizing a Stormwater Management Manual to comply with Puget Sound Water Quality Management Plan (PSWQMP). The amended Ordinance was adopted on October 23, 1996, and the new manual will take effect on February 1, 1997.

In addition to these ordinances, the City has an Environmentally Sensitive Areas Ordinance which is contained in Chapter 37 of the Zoning Code.

Design and Construction Standards and Specifications (Existing). The current City of Everett Design and Construction Standards and Specifications Manual provides requirements for land alterations, including erosion and sediment control, and also for storm and surfacewater management.

The *Land Alteration* chapter provides general protections and specific methods of control. This chapter also includes seasonal limitations on land alteration activities, criteria for development of temporary erosion and sediment control plans, and provisions for preservation of existing vegetation and for vegetation restoration.

Seasonal limitations are placed on land alteration activities on sites containing or in proximity to sediment or erosion sensitive areas. Land alteration activities are defined as clearing, grubbing, excavation, filling, grading and stockpiling. The City has developed a rating system which allows objective evaluation of a particular construction site's potential to discharge large quantities of sediment to the environment. Factors such as the slope of the site, site area, quantity of cut and fill, and soil characteristics are considered. Land alteration "windows" of varying restrictiveness result depending upon the site's total score from a rating sheet. Land alteration activities are limited to the period of time between June 15 and September 15 on sites with the greatest potential for sediment problems. The majority of sites rate a land alteration window of April 1 and October 1.

The *Storm and Surface Water* section provides requirements for the submittal of drainage plans; specific requirements for areas containing environmentally sensitive areas; special requirements for high risk land uses such as fueling sites, auto repair and maintenance shops,

car washes, etc.; and specific criteria for the selection, design, and maintenance of drainage facilities.

All collected surfacewater exiting the subject property must be conveyed to the nearest established, stable drainage course by pipe or by an approved swale in a manner that will not result in erosion or flooding. Sufficient downstream information and analysis must be provided to enable the City to determine that this requirement is being met. Private easements are required if conveyance must occur across private property. Any proposed encroachment into environmentally sensitive areas will require submittal of additional information and a restoration plan.

The options for stormwater treatment presented in the Design and Construction Standards and Specifications are, in order of preference:

- 1) An infiltration basin designed and constructed in accordance with City standards.
- 2) A wetpond designed and constructed in accordance with City standards.
- 3) A baffle-type oil/water separator followed by a vegetated swale, both designed and constructed in accordance with City standards.

The least preferred option is allowed only if the first two options are infeasible in the opinion of the Public Works Department.

**Infiltration:** The Design and Construction Standards and Specifications states the following with respect to infiltration of stormwater:

Infiltration shall be provided for stormwater runoff quantity and/or quality control per the recommendations of drainage basin plans and/or SEPA conditions. Generally infiltration is not acceptable as the sole method of disposing of stormwater. It is an acceptable means of providing water quality enhancement [stormwater treatment] when specific soil and site criteria are met.

Infiltration shall only be allowed as the major or sole method of stormwater disposal in areas of significant natural infiltration with soils classified as hydrologic Group A soils by the Soil Conservation Service. Many of these areas within the City of Everett are identified in the City's drainage basin plans.

Even when soil conditions are not conducive to large-scale infiltration of paved areas, infiltration of roof-top runoff (through the use of small, underground infiltration systems) is strongly encouraged. These smaller, more widely dispersed systems more closely approximate natural infiltration patterns. In addition, roof-top runoff is currently considered "clean" and does not require treatment prior to discharge to an infiltration system.

Drainage Basins Plans (Existing). The City of Everett drainage basin plans provide information and goals specific to each drainage basin within the City of Everett. In particular, goals for stream flow are developed, which in turn set specific stormwater detention standards for each drainage basin. Capital improvements needed to achieve the goals are also identified.

The following are the current goals for stormwater quantity control identified in the most recent City of Everett Drainage Basin Plans:

<u>Drainage Basin</u>	<u>Design Storm</u>	
	<u>Predevelopment</u>	<u>Post Development</u>
Powder Mill	2	25
Pigeon Creek #2	2	25
Edgewater Creek	2	25
Glenwood Creek	2	25
Merrill and Ring	5	25
Narbeck Creek	5	25
Japanese Creek	10	25

Using the Powder Mill basin as an example, this means that when the precipitation from a 25 year storm falls on the developed site, sufficient detention must be provided so that the peak stormwater release rate does not exceed the current (undeveloped conditions) release rate from a 2 year storm.

The City does not have an adopted drainage basin plan for Swamp Creek.

Surfacewater System Ordinance, EMC 14.56 (Existing). This Ordinance prohibits the discharge of polluting matter into the surfacewater system. Violation of the Ordinance is a misdemeanor punishable by a fine not to exceed five thousand dollars per day or per occurrence.

In addition to fines, the Ordinance also gives the City the ability to require correction of an "unsafe condition" - which is defined as any condition "on public or private premises which may cause pollution or does or may impede the operation or functioning of the surfacewater system or which may cause damage thereto."

Polluting matter includes, but is not limited to: petroleum products including but not limited to oil, gasoline, grease, fuel oil, and heating oil; chemicals; paints; steam cleaning wastes; fresh concrete; washing of fresh concrete for cleaning and/or finishing purposes to expose aggregates; laundry wastes; soaps; pesticides, herbicides, or fertilizers within 25 feet of a surfacewater system; sanitary sewage including septic tank fluids; degreasers and/or solvents; antifreeze, transmission fluid or other automotive products; animal carcasses; acids or alkalis; recreational vehicle wastes; dyes; any fluid with a pH less than 6.0 or greater than 8.5; and cooking wastes.

The surfacewater system is defined as the receiving bodies of water and the facilities within the City, both public and private, naturally existing and artificial, for storm and surfacewater drainage, conveyance, detention and storage, and any facilities or processes therein, both public and private, natural or artificial, which control the quantity or maintain or improve the quality of storm and surfacewaters or deter pollution. The surfacewater system includes, but is not limited to, streets, sidewalks and all public right-of-ways.

Water Quality Management Program. The City of Everett monitors water quality in most streams in the City. The monitoring, which is one component of the Surfacewater Management

Program, is funded through a surfacewater assessment on utility bills, with a total city-wide budget of about \$1 million. Within the Subarea, dry weather baseflow water quality data is collected for Japanese, Edgewater, Narbeck, Merrill and Ring, and Swamp Creeks. Both dry weather baseflow and storm flow water quality data is collected for Powder Mill, Glenwood and Pigeon Creek #2. The stormflow data is collected with automatic water sampling equipment. Samples are collected near the outflows of all streams within the study area into Port Gardner Bay, except that samples for Swamp Creek are collected at the outflow of a regional detention pond at 108th and Evergreen Way. Staff collects and preserves samples, and analysis of the samples is completed in a City lab. Data from the Fall of 1990 to Spring of 1992 was used for this document to summarize existing water quality in the Subarea. This data is available for review in the Planning Department.

In addition to water quality monitoring, the City has begun to sample benthic invertebrates (primarily fly larvae attached to rocks on the stream bottom) in the streams. The quantity and type (pollution tolerant or not) of benthic invertebrates living in a stream is a good indicator of the water quality in the stream. Data on these sampling efforts will be available in the future.

Drainage Ordinance, EMC 14.28 (Existing). The stated purpose of this Ordinance is "to promote sound development guidelines and construction procedures which respect and preserve the City's watercourses; to minimize water quality degradation and control sedimentation of creeks, streams, ponds, lakes, and other water bodies; to protect property owners adjacent to developing and developed land from increased runoff rates which could cause erosion of abutting property; to protect downstream owners; to preserve and enhance the suitability of waters for contact recreation and fishing; to preserve and enhance the aesthetic quality of the waters; to maintain and protect valuable groundwater resources; to minimize adverse effects of alterations in groundwater quantities, locations, and flow patterns; to ensure safety of City roads and right-of-way; and to decrease drainage related damage to public and private property."

The Drainage Ordinance applies to any developers performing clearing or logging operations in excess of five thousand square feet of area, developing on slopes in excess of 15%, or obtaining a Public Works permit. A Public Works permit is required for all work within the public right-of-way and City utility easements, and for all sewer, water, and drainage improvements, including fill and excavation, parking lot construction and/or paving on private property.

The Ordinance requires:

- The development of drainage plans and the submittal of drainage calculations.
- Receiving and discharging surfacewater at the natural locations. Natural drainage patterns regarding proportion of stormwater runoff to sub-basins must be maintained.
- Restriction of stormwater discharges to levels specified in the drainage plans.
- Provision of adequate measures for control of stormwater per the procedures manual (Design and Construction Standards and Specifications).

The City also inspects private stormwater systems on developments with on-site detention and runoff treatment facilities, including detention ponds, swales, and underground vaults through authority provided in the Drainage Ordinance. City staff can require property owners to correct violations, and property owners can be fined up to \$5,000 per occurrence for clean-up costs per EMC 14.56.

Revised Drainage Ordinance and Stormwater Management Manual. The Puget Sound Water Quality Management Plan (PSWQMP) requires the City to adopt certain minimum technical requirements for development and redevelopment and a Stormwater Management Manual that is technically equivalent to the Department of Ecology's Stormwater Management Manual for the Puget Sound. The City's Drainage Ordinance has been revised to include these minimum technical requirements. The revised ordinance and the new Stormwater Management Manual will take effect on February 1, 1997.

The City of Everett's new Stormwater Management Manual, when used in conjunction with the Design and Construction Standards and Specifications Manual, will implement the revised Drainage Ordinance and will provide criteria for the selection, design, and construction of Best Management Practices (BMPs) for stormwater management, pollutant source control, and erosion and sediment control.

*General Proposed Requirements.* The requirements of the revised Ordinance are summarized in Table 3.4-3. The plans and requirements referenced in the table will be described in detail in the Stormwater Management Manual. Specific BMPs and their design standards will also be contained in the manual. At this time, a final Stormwater Manual is being developed. Information from the manual regarding required plans and types of BMPs has been included in this section for reference.

Stormwater Site Plans are comprehensive reports which contain all technical information and analysis necessary to evaluate the temporary erosion and sediment control facilities, source control BMPs, and runoff control facilities required or proposed for a site. The Stormwater Site Plan must be stamped and dated by a professional civil engineer licensed in the State of Washington.

A Stormwater Site Plan will generally include the following sections:

- Project Overview
- Preliminary Conditions Summary
- Off-Site Analysis
- Proposed Erosion and Sediment Control Plan
- Proposed Drainage Plan
- Proposed Source Control Plan
- Analysis and design of all BMPs proposed and/or required.
- Special Reports and Studies
- Basin and Community Planning Areas
- Other Permits
- Miscellaneous Forms and Worksheets
- Maintenance and Operations Requirements

A Small Parcel Erosion and Sediment Control Plan will illustrate the BMPs and strategies for controlling erosion and sediment on a small project site during construction.

A Large Parcel Erosion and Sediment Control Plan will illustrate the BMPs and strategies for controlling erosion and sediment on construction sites larger than an acre. It will be a

**Table 3.4-3  
Requirements in Revised Drainage Ordinance**

Type of Development	SPESCP	SSP W/SPESCP AND DP	SSP W/LPESCP AND DP	SOURCE CONTROL	RUNOFF TREATMENT	STREAMBANK EROSION CONTROL
Individual, detached, single family residences and duplexes	X					
Creation or addition of less than 5,000 square feet of impervious surface	X					
Land disturbing activities of less than one acre	X					
Land disturbing activities of one acre or greater			X	X		X
Creation or addition of 5,000 square feet or more of impervious surface along with land disturbing activities of less than one acre		X		X		X
Creation or addition of 5,000 square feet or more of impervious surface along with land disturbing activities of one acre or greater			X	X		X
Creation or addition of 5,000 square feet or more of paved surface				X	X	X

Note:

SPESCP = Small Parcel Erosion and Sediment Control Plan

LPESCP = Large Parcel Erosion and Sediment Control Plan

SSP = Stormwater Site Plan

DP = Drainage Plan

component of the Stormwater Site Plan, which will include the design and analysis of the erosion and sediment control BMPs.

A Drainage Plan will illustrate the BMPs and strategies for controlling runoff on a development or redevelopment site. It will be a component of the Stormwater Site Plan, which will include the design and analysis of the runoff control BMPs.

*Requirements for Runoff Control BMPs.* Runoff control BMPs include infiltration, runoff treatment, streambank erosion control, and streambank stabilization BMPs.

- *Infiltration BMPs:* In the Stormwater Manual, infiltration BMPs will have the highest priority for both runoff treatment and streambank erosion control, provided proper conditions exist for their use.

Sufficient organic content to remove pollutants must be present for soils to provide runoff treatment. These soils have fairly low percolation rates that generally make them infeasible for infiltrating the large volumes of runoff required for streambank erosion control. Coarser soils can provide streambank erosion control, but generally do not provide adequate treatment of runoff.

The use of coarser soils for infiltrating runoff is allowable to meet streambank erosion control objectives, but runoff treatment must precede discharge to these soils in order to protect groundwater quality.

- *Runoff Treatment BMPs:* Per the City's revised Drainage Ordinance, all projects that create 5,000 square feet or more of new pavement must provide treatment of stormwater runoff. Additional criteria apply to redevelopment projects.

Runoff treatment BMPs are designed to reduce the concentration of pollutants in stormwater runoff. The design goal is to provide effective treatment of at least 90 percent of the runoff generated by development. To achieve this goal, runoff treatment BMPs are sized to treat the 6-month, 24-hour design storm (also referred to as the water quality design storm, or the runoff treatment design storm).

Categories of runoff treatment BMPs include primary treatment, pretreatment, and oil/water separation. Primary treatment BMPs provide the majority of treatment. Pretreatment BMPs are used to protect certain primary treatment BMPs from suspended solids. Oil/water separation BMPs remove heavier concentrations of oil found in runoff from certain land uses. See the following page for a listing of runoff treatment BMPs.

In general, the following land uses must provide baffle-type (API) or coalescing plate (CP) oil/water separators in addition to other runoff treatment facilities:

- Industrial machinery and equipment
- Trucks and trailer, aircraft parts and aerospace, and railroad equipment
- Log storage and sorting yards
- Airfields and aircraft maintenance
- Fleet vehicle yards

Railroads  
Gas stations  
Retail/wholesale vehicle and equipment dealers  
Vehicle maintenance and repair  
Construction businesses (paving, heavy equipment storage and maintenance, storage of petroleum products)

- **Streambank Erosion Control BMPs:** Streambank erosion control (SBEC) BMPs are designed to prevent or control the excessive erosion that typically occurs due to increases in peak flow rates and increases in the frequency and duration of high flow conditions from urbanizing watersheds. Streambank erosion control requires attenuation of stormwater flows through the use of stormwater infiltration and/or stormwater detention.

Streambank erosion control will most likely be required for attenuation of runoff flows when stormwater discharges are made either directly or indirectly (through a conveyance system) into a stream. Requirement of streambank erosion control will not be required when there is a direct discharge to the Snohomish River, Silver Lake, or Port Gardner Bay.

Streambank Erosion Control BMPs must be designed to meet the following requirements:

- The peak discharge rate for the 2-year, 24-hour storm shall not exceed 50% of the peak runoff rate for the same storm and existing site conditions, and
- The peak stormwater discharge rates for the 10-year and 100-year, 24-hour storms shall not exceed the peak runoff rate for the same storm and existing site conditions.

(See the impact section of this DEIS for an analysis of how the new standards will affect stream flows.)

- **Streambank Stabilization Measures:** In cases where a streambank erosion problem already exists, streambank stabilization measures may be required. The selection and design of these BMPs will be made on a case-by-case basis.
- **Selection of Runoff Treatment and Streambank Erosion Control BMPs:** The order of preference for runoff treatment and streambank erosion control is shown below. A lower preference BMP may only be used if all higher preference BMPs are infeasible in the opinion of the Public Works Department.

#### *Runoff Treatment BMPs*

1. Infiltration Basin - where certain soils and site conditions exist
  - Wetpond
  - Constructed Wetland
2. Emergent Swale
  - Grass Swale

### *Streambank Erosion Control BMPs*

1. Infiltration Basin - where certain soils and site conditions exist
2. Wetpond
  - Constructed Wetland
  - Extended Detention Dry Pond
  - Wetvault/Tank
  - Extended Detention Dry Vault/Tank

Infiltration BMPs are preferred for both runoff treatment and streambank erosion control. Before any other BMPs may be selected, infiltration must be considered. The Stormwater Manual will provide detailed information regarding the feasibility of infiltration systems.

In general, where soil conditions are suitable, required setbacks can be met, and slope stability is not an issue, roof downspout infiltration systems will be required for disposal of roof-top runoff.

In general, a wetpond or constructed wetland will be required for runoff treatment if infiltration is not feasible. In some limited cases, a wetpond or constructed wetland will not be feasible. This situation is most common on redevelopment sites with existing storm systems and extensive impervious surfaces. In these cases, a biofiltration swale may be utilized to treat stormwater runoff.

If infiltration BMPs are not feasible for streambank erosion control, any of the other detention-type BMPs listed in the table may be used instead.

Any number of factors may make one BMP preferable over another on any given site. In cases where both runoff treatment and streambank erosion control are required, a BMP that meets both objectives may be most cost-effective.

Different BMPs have different recommended drainage areas, which may affect their suitability for a particular site. On large sites, multiple facilities may be designed and constructed to avoid exceeding maximum recommended drainage areas for specific BMPs.

### *Miscellaneous Standards*

The Stormwater Management Manual will also include standards for specific discharges/activities, including the following:

**Vehicle/Equipment Washing Areas:** A specially designated area will be required for washing of cars, fleet vehicles, or equipment. The washing area must be hydrologically isolated from the rest of the site, be covered, and wash water from the area must drain to the sanitary sewer after being routed through a baffle-type oil/water separator designed to City standards. Signs must be posted on the site limiting car and fleet vehicle washing to the designated area only. A note stating that car and fleet washing is only permissible in the designated area must be included on the storm drainage plans.

Stormwater drainage systems shall be maintained to ensure proper functioning, including vegetation harvesting and cleaning of sumps, to avoid infiltration of contaminants to subsurface water. Maintenance must occur per the standards in Stormwater Management Manual.

### Environmentally Sensitive Areas (ESA) Ordinance, Chapter 37 of the Zoning Code

This Ordinance was adopted by the City per Growth Management Act requirements. It establishes regulations for the protection of environmentally sensitive areas. No development permit may be issued, no subdivision of land may be approved, nor may any use be established on any lot which contains, adjoins, or is in close proximity to an environmentally sensitive area until approvals required by this Ordinance have been granted by the City. This Ordinance applies to the following environmentally sensitive features: areas of flood hazard<sup>4</sup>; wetlands; streams; geologically hazardous areas; seismic hazard areas; fish and wildlife conservation areas; slopes of 25% or greater associated or in conjunction with one or more of the previously listed sensitive areas; and groundwater discharge areas.

Generally, the Ordinance requires that streams, wetlands, and their buffers be preserved/protected. When a wetland, stream or other environmentally sensitive area is known to be on-site, or may be on a site, the applicant is required to hire a qualified expert to complete a study, which includes the delineation/survey of environmentally sensitive area and categorization of the stream/wetland per Chapter 37 standards. For wetlands and streams, the required buffer width is based upon the category of wetland/stream and ranges from 25 to 100 feet for wetlands and 10 to 100 feet for streams. Where steep slopes are adjacent to streams and wetlands, the required buffer extends 25 feet beyond the top of slope.

Some wetlands are exempt from regulation and may be altered or eliminated without mitigation. These include:

- Category III wetlands less than 500 square feet having only one wetland class, which is not forested and which is hydrologically isolated.
- Category IV wetlands less than 8,000 square feet in area.

The Ordinance allows the modification of regulated wetlands, streams, and their buffers in some instances, provided that mitigation is provided. Chapter 37 includes wetland and stream impact mitigation goals and preservation/alteration thresholds, and mitigation replacement ratios for wetlands that are altered. If modification of wetlands, streams or buffers are proposed, additional studies and detailed mitigation plans must be submitted by the wetland/stream experts. The detailed mitigation plans must meet the requirements of Chapter 37 and must be approved by the Planning and Community Development Director prior to the issuance of any permits or initiating any clearing activity which may impact an environmentally sensitive area or its required buffer.

A geotechnical report is required prior to any construction in a geologically-hazardous area or within its required buffer.

Monitoring of stream and wetland mitigation, preparation of contingency plans, and performance bonding is also required. Wetland monitoring is required per the standards in the City's Administrative Guidelines for the Identification and Evaluation of Wetlands and Streams. Permanent protection of ESAs is required with permanent fencing required along the edge of the ESA, signs posted on the fence, and recording ESA covenants for wetlands. Additional conditions may be placed on projects by the Planning Director when the proposal includes modification of wetlands, streams, or their buffers.

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<sup>4</sup> There are no areas of flood hazard in the study area.

Streams: Along with stormwater regulations and spill response planning, the Chapter 37 requirements for protection of riparian buffers and erosion and landslide hazard areas have generally been sufficient to protect stream corridors. The riparian habitats associated with study area streams are generally in good condition, although the proportion of conifers is low. Riparian corridors have been an important factor in maintaining the ecological values of these streams in the face of large hydrologic changes from development. The riparian corridors currently include the entire inner gorges of many streams. Because most activities within most areas of the gorges are prohibited by the landslide and erosion hazard requirements of the Environmentally Sensitive Areas Ordinance (the side slopes are in excess of 25 percent), the resulting riparian buffer is beyond the buffer requirement for the streams.

Wetlands: With respect to wetlands, the goals of the GMA are to have no net loss of wetland resources or wetland functions in the short-term and to have a net gain of wetland resources and functions in the long-term. In order to achieve these goals, the City has defined the following hierarchy with respect to wetland impacts:

- (1) Avoid impacts by not taking the destructive action.
- (2) Minimize impacts by limiting the magnitude of the disturbance to wetland habitats by utilizing appropriate technology.
- (3) Rectify the impact by rehabilitating or restoring the affected areas.
- (4) Reduce or eliminate the impact over time by prevention and maintenance during the life of the disturbing activity.
- (5) Compensate the impact by replacing, enhancing, or creating wetland areas.
- (6) Monitor impacts and take corrective measures.

When filling or alteration of wetlands is permitted, mitigation for impacts to wetlands usually requires more area than the original wetland. This is due to the time it takes for the mitigation area to provide the same functions as the impacted wetland, and the historical failure of mitigation wetlands to provide the same functions as the impacted wetland. The City's Environmentally Sensitive Areas regulations require replacement ratios ranging from 6:1 for Category 1 wetlands to 1.25: 1 for Category 4 wetlands.

### **Plants and Animals Regulations**

Special status species are native species that have been accorded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

#### **Federal Regulations: US Fish and Wildlife Service (USFWS)**

Endangered Species Act. The USFWS administers the federal Endangered Species Act (ESA). The ESA was passed in 1973 and has since been amended and reauthorized. The ESA provides a process for listing species as either threatened or endangered and methods for protecting listed species.

The ESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is a species that is likely to become endangered in the foreseeable future. Additional species of concern are divided into four categories: 1) proposed for listing as endangered or threatened, 2) Candidate Category 1 (enough data are on file to support a listing), 3) Candidate Category 2 (information indicates proposal to list is appropriate, but current data are insufficient to support a listing), and 4) Candidate Category 3 (species that were once considered for listing but are no longer under consideration).

### **Washington State Regulations: Department of Natural Resources (DNR)**

Natural Heritage Program. Through the Natural Heritage Program, the DNR lists native plants whose further existence in the State is of concern. Plants are listed as endangered, threatened, or sensitive<sup>5</sup>. DNR does not have specific regulations that apply to listed plants. Rather DNR reviews and comments on projects that may impact any listed plant under the State Environmental Policy Act (SEPA). The DNR also has developed the Natural Heritage Plan, which establishes methods of protection and priorities for listed species.

The Natural Heritage Program maintains a database of known occurrences of special status plants in Washington. The database information is not derived from systematic surveys of all areas for special status plants; rather the data are from small surveys and data collected incidental to other field work. Thus, not all existing locations of special status plants are in the database.

No threatened, endangered, or other special status plant species are known to occur in the SW Everett/Paine Field Subarea (DNR, 1994).

### **Washington State Regulations: Department of Fish and Wildlife**

The Washington Department of Fish and Wildlife publishes a list of wildlife Species of Special Concern (SSC) annually. This list includes native Washington species considered Endangered, Threatened, Sensitive, Candidate and Monitor<sup>6</sup>. Endangered, Threatened, and Sensitive species are legally established in Washington Administrative Codes. Candidate and Monitor species are established by WDFW policy. There are currently 24 Endangered, 8 Threatened, 1 Sensitive, 56 Candidate and 149 Monitor species on the SSC list.

The WDFW also publishes a Priority Habitats and Species (PHS) list. The PHS list is a catalog of habitats and species considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status,

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<sup>5</sup> "Endangered" plants are in danger of becoming extinct or extirpated in Washington within the near future if causes of decline continue. "Threatened" plants are likely to become endangered in the near future if causes of decline continue. "Sensitive" plants are declining or vulnerable and could become endangered or threatened without active management or removal of threats.

<sup>6</sup> "Endangered" species are in danger of extinction throughout all or a significant portion of their range in Washington. "Threatened" species are those that are likely to become endangered in Washington in the foreseeable future. "Sensitive" species are those that are vulnerable or declining and may become endangered or threatened in Washington. "Candidate" species are being reviewed for listing as endangered, threatened, or sensitive. "Monitor" species are those about which the WDFW is concerned, for a variety of reasons; therefore, the WDFW monitors their status.

sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority species include all State Endangered, Threatened, Sensitive, and Candidate species; animal aggregations considered vulnerable; and those species of recreational, commercial, or tribal importance that are also vulnerable. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species.

The PHS program maintains a database of priority species and habitats in Washington. The database contains both location and use information. The PHS database information is not derived from systematic surveys of all areas for special status wildlife; rather the data are from small surveys and data collected incidental to other field work. Thus, not all existing locations of special status animals are in the database.

The only endangered species protected by State law is the Bald Eagle. If human activities threaten to alter eagle habitat near a nest or communal roosting site, a cooperative site management plan must be developed under the Washington State Bald Eagle Protection Rules (WAC 232-12-292). The management plans are prepared by the Department of Fish and Wildlife. For all species other than eagles, the Department of Fish and Wildlife comments on SEPA reviews for individual projects to recommend appropriate protection mechanisms.

Deleterious Exotic Wildlife (WAC 232-12-017). The WDFW also regulates deleterious exotic wildlife. In most cases, it is unlawful to import into the State, hold, possess, propagate, offer for sale, sell, transfer, or release live specimens of deleterious exotic wildlife. Species that are designated as deleterious exotic wildlife include walking catfish, piranha, African clawed frogs, and mute swans.

#### **Local Regulations: City of Everett**

Environmentally Sensitive Areas Ordinance (Chapter 37 of the Zoning Code). The City's Environmentally Sensitive Areas Ordinance defines fish and wildlife conservation areas and requires that Habitat Management Plans be prepared for developments that may affect these areas. The required content of habitat management plans varies, depending upon the resource involved, but in general must include actions necessary to maintain and enhance the resource present. Fish and Wildlife conservation areas include:

- **Habitats of Primary Association:** A critical component(s) of the habitats of federally or state listed endangered, threatened, candidate, sensitive, priority and monitored wildlife or plant species, which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. These include winter ranges, migration ranges, breeding sites, nesting sites, regular large concentrations, communal roosts, roosting sites, staging areas, and priority habitats listed by the Washington State Department of Wildlife.
- **Riparian Corridors**
- **Continuous Vegetative Corridors Linking Watersheds** (also described as wildlife corridors in the EIS)
- **Significant Biological Areas:** Those within the study area include plant associations of infrequent occurrence, Bomarc Bog (Kasch Park bog), yew groves, Narbeck Swamp.

## **Miscellaneous Regulations**

### **Washington State Regulations: Department of Natural Resources (DNR)**

#### **Forest Practices (RCW 76.09 and WAC 173-202, WAC 222)**

The Forest Practices Act authorized the adoption of regulations establishing standards for forest practices. Forest practices regulations pertaining to water quality protection were adopted individually by the Forest Practices Board and the Department of Ecology after the two State agencies reached agreement thereon. All other forest practices regulations were adopted by the Forest Practices Board. Generally, a permit is required from DNR for cutting trees on all sites with environmentally sensitive areas, on sites within 200 feet of a shoreline, and on sites 2 acres or more in size. Exemptions are provided for cutting hazardous trees (those within 1-1/2 tree lengths of a permanent structure) and for cutting up to 5,000 board feet per year for personal use. Among other things, the permits address soils stability and water quality impacts.

### **3.4.3 Recommended Mitigation Measures**

#### **3.4.3.1 General Mitigation Measures**

1. The following Best Management Practices (BMPs) must be followed for all construction work through and immediately adjacent to environmentally sensitive areas and their buffers, unless otherwise required by a permit issued by a federal or state agency.
  - Work should be done in the dry season whenever possible (June 15 to September 15).
  - The width of the corridor through the wetland or stream should be minimized.
  - Construction staging areas must be located outside of environmentally sensitive areas and their buffers, unless determined by the Planning Director to be infeasible. Streams, wetlands, buffers, staging areas and construction limits shall be clearly shown on construction plans. Construction limits shall be clearly marked in the field with orange construction fencing.
  - Work shall be done so as to minimize turbidity, erosion, and other water quality impacts.
  - Proper erosion and sediment control measures shall be followed to prevent sediments from entering creeks or wetlands. Erosion control measures shall be approved by the Department of Engineering and Public Services and/or agencies with jurisdiction. Measures may include, but not be limited to, placing plywood across the area where equipment will operate; mulching the wetland areas where equipment will operate; placing wood chips atop a flexible mat to help prevent compaction (the wood chips and mat must be removed following construction); placing silt fences and hay bales between construction areas and all adjacent wetlands and streams; and placing ecology blocks

between construction areas and streams or wetlands when a temporary fill is used for roads, etc.

- Erosion control measures shall be in place and inspected prior to commencement of work. All erosion control structures shall be inspected regularly to ensure they are maintained in working order.
- If the corridor needs to be dewatered to do the work, the water should be pumped to a sedimentation pond where all solids can settle or an area where it can sheet flow before being discharged back to the stream or wetland. Turbidity levels in associated wetlands and streams shall not exceed the standards in WAC 173-201A.
- Any excavation materials must be placed in an upland area during construction. Wetland soils must be in separate piles from upland soils. After construction, wetland soils should be returned to the wetland and upland soils placed in upland areas. At a minimum, the top 18 inches of topsoils from wetland areas shall be stored separately from the rest of the soils and replaced as the top layer of fill in the wetlands following construction. Care must be taken not to make "dams" from compacted fill that would alter any subsurface flow.
- If a pipe is being trenched through the area, measures shall be taken to prevent the dewatering of the wetland (e.g. cut off collars, etc.).
- When operating machinery in or near water, extreme care shall be taken to prevent any petroleum products, cement, chemicals, or other toxic or deleterious materials from entering the water. If a spill does occur, work shall be stopped immediately and Ecology's Spill Response Section contacted.
- Equipment maintenance shall not occur in or adjacent to wetlands and streams.
- After construction, the site must be returned to its original grades. Care must be taken to not drain wetlands or alter water flows or patterns.
- Whenever feasible, if wetland plant species are not invasive, they should be removed prior to construction and placed aside in a shady damp location, such as under wet burlap sacks. Following construction, they should be replaced in the wetland area.
- Revegetation: At a minimum, erosion control revegetation is required in all cleared areas and should include herbaceous ground cover that does not interfere with establishment of native vegetation. If long-term revegetation is required, it should be accomplished during the next most favorable time of year for the particular vegetation to ensure the highest level of success. (Note: If revegetation does not occur immediately following recontouring of the site, adequate erosion control measures must be taken.) Native species compatible with preconstruction vegetation patterns shall be used for revegetation. Degraded emergent sites, such as Reed canary grass fields, shall be replanted with species that are representative of a higher quality emergent, scrub-shrub or forested wetland. If revegetation is required, monitoring should occur once a year for a minimum of two years. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)

2. Pre-construction conferences must be held with the Planning Department, Public Works Inspector and site development manager on sites containing environmentally sensitive areas in order to ensure that all development standards are understood. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
3. On sites where environmentally sensitive area and/or buffer mitigation is required, a report must be submitted by the wetland/stream/wildlife expert stating that the construction was completed per plans prior to issuance of occupancy permits. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)
4. All mitigation plans shall include the provision of adequate topsoils in areas where plantings will occur. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)
5. Temporary (2-year minimum) irrigation systems are required for all plantings in buffers, unless waived by the Planning Director. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
6. In conjunction with issuance of development permits for a site, a permanent fence must be constructed along the entire edge of any environmentally sensitive area buffer. The design of the fence must be split rail, or an alternative approved by the Planning Department prior to issuance of permits. ESA signs should be placed at approximately 50 foot intervals along the fence. Signs are available from the Planning and Community Development Department. The City may require that environmentally sensitive areas be placed in separate tracts and designated as sensitive habitat with listed restrictions on the approval/final plans. (Chapter 37 of the Zoning Code and SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
7. Prior to initiation of construction, a biologist or wetland/stream expert must inspect construction fencing along environmentally sensitive areas buffers/construction limits to ensure that fencing is located properly. The biologist/expert should inspect the site occasionally during construction, and shall have authority to impose a stop work order immediately if the biologist/expert determines that work activities violate buffer and setback requirements. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)

#### 3.4.3.2 Mitigating Impacts of Development on Vegetation and Wildlife

1. Wildlife Corridors<sup>7</sup>: Because the area is generally built out, few opportunities exist to establish east-west wildlife corridors between basins in the residential areas to the north of the Subarea. Thus the remaining corridors are important for wildlife movement. Several wildlife corridors were required on the Boeing property. In addition, the City owns a parcel between Narbeck Creek and Merrill and Ring Creek that will function as a wildlife corridor.

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<sup>7</sup> Defined as "continuous vegetative corridors linking watersheds" in the City's Environmentally Sensitive Areas Ordinance

The City shall designate the buffers between industrial developments and the residential areas and buffers separating residential areas (see Figure 3.4-40) as wildlife corridors as well as buffers. Additional plantings shall be required in these corridors/buffers in conjunction with issuance of permits on these sites when the Planning Director determines that the corridor can be enhanced. An enhancement plan must be reviewed and approved by the Planning Department prior to the issuance of any permits. The City encourages enhancement in all corridors. Enhancement should provide additional cover and food sources for wildlife, as well as coniferous vegetation. (SEPA Plant and Animal and Land and Shoreline Use Policies)

2. No removal of vegetation is permitted in environmentally sensitive areas and their buffers, including wildlife corridors, except as approved by the Planning Director to eliminate hazardous trees, allow construction and maintenance of utilities, and/or provide access to properties. Any cleared areas shall be replanted with native vegetation. In wildlife corridors, the intent of plantings shall be to establish coniferous forest where feasible, except that utility corridors shall be established with native shrubs and groundcover. (SEPA Plant and Animal and Land and Shoreline Use Policies)
3. Where development occurs adjacent to environmentally sensitive areas, an analysis of hazardous trees in the environmentally sensitive area must be completed by a professional arborist. Any trees that are hazardous (i.e., are diseased, damaged or leaning and are likely to fall on development) must be removed prior to issuance of occupancy permits, and preferably, prior to construction of structures on the site. Where they would not create a hazard, the trunks of these trees must be left for snags. For each tree cut, three coniferous trees must be planted. However, for each tree left as a snag, one coniferous tree must be planted. The arborist must submit a tree removal and replacement plan to the Planning Department and mark in the field all trees to be removed. The Planning Department must approve the tree removal and replacement plan prior to any activity in the environmentally sensitive area. Large woody debris should be retained where it would not create a hazard, such as causing flooding due to alteration of the natural hydrology of a stream system. (SEPA Plant and Animal Policies)
4. A variety of native species can be planted to increase local diversity and provide attractive wildlife habitat while countering erosion. The use of native plants can also improve water quality by minimizing the use of fertilizers, herbicides, and pesticides. Water use efficiency is another advantage of landscaping with native plants. Reduced irrigation means reduced likelihood of erosion, siltation, and landsliding resulting from the development, reduced impacts to local hydrology, reduced maintenance costs, and enhanced water availability for other consumptive uses.

All plantings in environmentally sensitive areas and their buffers and in transition areas in SW Everett shall be native species and hybrid natives, including landscaping required by Chapter 35 of the Zoning Code (perimeter landscaping, landscaping of the parking lot, and interior landscaping). The City has a goal that 75% of new landscaping in the Subarea be native, hybrid natives, or drought-tolerant. Landscape plans should show an attempt to reach this goal unless landscaping with these species will not meet the objective of the proposal (e.g., golf driving range, ball fields, etc.).

Plants with noted habitat or food value for wildlife should be selected wherever possible. Invasive species shall not be planted. A list of native recommended species is included in Appendix 3.4.6 of the SW Everett/Paine Field Subarea Plan EIS.

Where native, hybrid natives and/or drought-tolerant species are planted, permanent irrigation systems shall not be required. Temporary irrigation must be provided for two years after planting. (SEPA Plant and Animal, Water and Public Services Policies)

**This is a significant policy decision.**

5. Plantings in environmentally sensitive areas and their buffers must be designed to simulate Pacific NW native plant communities in terms of composition, cover-abundance, and structure. All mitigation plans shall include herbs in the planting plan. Diversity of environmentally sensitive area buffer habitat must also be ensured through the planting of later successional forested stages of vegetation (e.g. Western red cedar, Douglas fir, and Western hemlock) where needed and appropriate. (SEPA Plant and Animal Policies)
6. The provision of thin-stemmed emergents in the northwest portion of wetlands for amphibian breeding habitat must be considered when designing wetland mitigation. (SEPA Plant and Animal Policies)
7. Exotic invasive species must be controlled. English ivy (*Hedera helix*) shall not be planted in the Subarea. Properties must be maintained to eliminate Scot's broom and other invasive species. (SEPA Plant and Animal and Land and Shoreline Use Policies)
8. The provision of large woody debris must be considered when designing mitigation for impacts to environmentally sensitive areas and their buffers. Sufficient shrub or woody debris cover must be maintained and planted in and adjacent to environmentally sensitive areas to conceal nests from terrestrial predators and thereby insure the survival of ground nesting bird species. For example, downed logs which provide quality nesting habitat for winter wrens should be maintained and fast growing shrubs (i.e. red-osier dogwood) should be planted to provide added concealment of ground nests from predators. In addition, to minimize entrance of predators and humans into wetlands, "barrier" species such as native roses (*Rosa sp.*) could be planted in buffers. (SEPA Plant and Animal and Land and Shoreline Use Policies)
9. Whenever feasible, wetland creation projects should occur adjacent to existing wetlands or be connected by natural corridors to neighboring habitat in order to maintain population stability and enhance species richness. (SEPA Plant and Animal and Land and Shoreline Use Policies)
10. At this time, development is not permitted on the portion of the Boeing site with major yew groves per the Boeing expansion decision document. Any future development of the area is subject to additional SEPA analysis of impacts on yew trees and groves.

Additionally, the environmentally sensitive areas as identified in the master development site plan must be protected in compliance with requirements contained in the Boeing

Expansion Decision Document (September 18, 1991). (SEPA Plant and Animal and Land and Shoreline Use Policies)

11. Although eagles are not currently known to be nesting in the Subarea, they do nest in the study area. Eagles sometimes move nest locations within their territories, and more eagles are nesting in urban areas, often at sites that appear to be extremely marginal (Milner, 1996). Potential nesting sites do occur and will continue to occur within the ravines and in other forested areas within the Subarea. The City's Environmentally Sensitive Areas Ordinance requires that trees within the ravines and other environmentally sensitive areas be protected in most cases. (Trees in environmentally sensitive areas may be cut in emergency situations, such as where they pose a hazard to structures, and for construction of required utilities.) If a nest does occur on or adjacent to a development proposal, the owner currently must obtain approvals from the Washington Department of Fish and Wildlife before he/she can obtain a permit from the City.

The City staff is directed to work with the Department of Fish and Wildlife to incorporate an eagle management plan in the adopted Subarea Plan. This would expedite permitting if an eagle's nest is found near a proposed development. (Failure to reach agreement on a plan would not affect the implementation of the Subarea Plan, but would require individual property owners to reach agreement with the Department of Fish and Wildlife if an eagle's nest is found on or adjacent to a proposed development.) (SEPA Plant and Animal and Land and Shoreline Use Policies)

12. Only limited clearing of undeveloped sites for marketing purposes will be permitted prior to application for development permits. Clearing shall be primarily for access roads. Clearing must be limited to areas outside of environmentally sensitive areas, and buffers for these areas shall be doubled until such time as a development is proposed on the site. Clearing is not permitted in any area designated as buffer and/or wildlife corridors, and must not occur within 300 feet of a residential area. Clearing should not remove coniferous trees. Erosion control measures must be installed to prevent sediment and erosion impacts to adjacent properties and environmentally sensitive areas and their buffers. A clearing plan must be submitted to the City Planning and Engineering and Public Services Departments for their approval, and temporary detention ponds must be provided for any clearing as required by the Public Works Department. (SEPA Plant and Animal, Land and Shoreline Use, Earth and Water Policies)

**Note: This is a significant policy decision.**

13. Fences shall not be permitted where they would restrict wildlife movement through environmentally sensitive areas/wildlife corridors. (SEPA Plant and Animal and Land and Shoreline Use Policies)

#### **3.4.3.3 Mitigating Impacts on Streams, Fish, and Fish Habitat**

1. Areas with soils suitable for large scale infiltration should be protected. Due to the construction of new impervious surfaces, stormwater volumes will increase significantly. Base flow reductions can only be mitigated by the use of infiltration systems for collected

stormwater. Infiltration systems will be required whenever feasible, as determined by the Public Works Department, particularly for rooftop runoff. This study area, however, has few areas of soils suitable for large scale infiltration. The Associated Sand and Gravel property located south of Sievers-Duecy Blvd. is one area where stormwater is currently being infiltrated. Infiltration must continue to occur on that site. (SEPA Water, Plant and Animal, and Land and Shoreline Use Policies)

2. Assisting the conversion of riparian zones from deciduous to coniferous or mixed forest will improve the long-term fish and terrestrial habitat of these streams. While riparian corridors are currently providing needed ecological functions, most of these stands are dominated by red alder. Red alder is a relatively short-lived species, and alder snags and logs decay relatively rapidly. A forest stand including conifers would have a longer lived canopy and would provide longer-lasting woody debris to the channels. Natural regeneration of conifers within the riparian corridors is slow, and silvicultural treatments designed to encourage forest succession to conifers would eventually enhance wildlife habitat and stream conditions. Additional coniferous tree plantings shall be required in riparian corridors in conjunction with issuance of permits for development on sites containing these corridors when the Planning Director determines that the corridor can be enhanced, particularly on sites with solid stands of alder without any conifer seedlings. An enhancement plan must be reviewed and approved by the Planning Department prior to the issuance of any permits. The City encourages the voluntary enhancement of all sites. (SEPA Water, Plant and Animal, and Land and Shoreline Use Policies)
3. Where mitigation for impacts to streams is required, the applicant shall consider the following potential mitigation measures:
  - Evaluate fish access to the Puget Sound streams bearing or potentially bearing anadromous fish, including Japanese Gulch, Merrill and Ring Creek, Glenwood Creek, Powder Mill Gulch, and Pigeon Creek #2, and improve where appropriate. (SEPA Water, Plant and Animal, and Land and Shoreline Use Policies)
  - Restore the riparian vegetation immediately adjacent to Japanese Gulch stream north of Mukilteo Blvd.
  - Peak flow rates from the Boeing complex are partly mitigated by a series of detention ponds and biofiltration systems above Seaway Boulevard. Nevertheless, high flow rates have accelerated channel and bank erosion in Powder Mill Gulch stream. In the event that Boeing requests a permit for additional impervious surface, the City may require better regulation of outflow from the Boeing detention facility to reduce channel erosion rates in Powder Mill Gulch.
  - Improve the habitat within the lower section of Merrill and Ring Creek by the addition of woody debris to the channel to create large pools and by importing scarce spawning gravels to this reach. In addition, evaluate anadromous fish access and improve, if appropriate.
  - Provide mitigation credit for the purchase and long term protection of headwater areas that would otherwise be developed. If the headwaters continue to be protected, Glenwood Creek is likely to maintain its trout population.

- Implement KCM's recommendations for habitat improvement for Pigeon Creek #2 within Howarth Park. These recommendations call for stream restoration, including creating a more sinuous channel and more pool habitat within the park as well as bank revegetation in specific locations. These improvements, along with initial stocking of salmonids and improvement of access, could create a small salmonid fishery in this stream. (SEPA Plant and Animal and Land and Shoreline Use Policies)

#### 3.4.3.4 Mitigating Impacts of Development on Wetlands

1. The wetland mapping completed for the Subarea Plan is not sufficient for purposes of project review (since boundaries were estimated and not delineated). At the time development is proposed on a site containing wetlands, a wetland delineation and study must be completed by a biologist with expertise in wetlands in compliance with Chapter 37 of the Zoning Code. Wetlands can change over time and incomplete wetland assessment data is available on some wetlands. When a project is proposed on a specific site, the wetland assessment(s) for the site must be updated/completed as part of the wetland delineation/study, using the Wetland and Buffer Functions Semi-Quantitative Assessment Methodology. (SEPA Land and Shoreline Use, Water, and Plant and Animal Policies)
2. Wetlands must be retained and buffers must be provided per the requirements of Chapter 37, or mitigation must occur. Where the applicant proposes alteration of the wetland or buffer, additional studies must be completed and the alterations must be approved by the Planning Director. The following wetland mitigation strategy will supersede the requirements of the Zoning Code:
  - a. Wetlands that should be preserved and protected include:
    - Habitat Function Group 1 wetlands larger than 1 acre.
    - Wetlands located in a riparian corridor or wildlife corridor.
    - Wetlands that drain into an adjacent Habitat Function Group 1 wetland (such as Narbeck or Kasch Swamps) or regionally rare wetland types such as Kasch Bog.
    - Wetlands with unique plant or animal species present.
    - Wetlands located in significant groundwater recharge areas.

If fill/alteration of these wetlands is proposed, the mitigation sequencing preference order found in Section 37.110 of the Zoning Code shall be followed. Avoiding impacts is preferred, especially in areas where habitats are rare, sensitive, or critical for key species of wildlife and where wetlands perform functions that are needed or limited in a drainage basin. Avoidance is perhaps most important in bogs and in forested wetlands. Surfacewater storage is a function that is limited in the southern half of the SW Everett/Paine Field Subarea. Preservation of wetlands with good storage capacity (such as Narbeck Swamp) is therefore a priority. Preservation or enhancement of the stormwater control and water quality improvement functions for wetlands is important in the industrial areas where pollution and large amounts of impervious surface are a problem. This is especially true because of normally limited on-site stormwater storage, flood attenuation, and water quality improvement in industrial areas.

- b. The City shall allow all other wetlands to be altered or filled without following the standard b mitigation preference order, provided that compensation/mitigation occurs as approved by the Planning Director. Figure M-1 shows the approximately 8 acres of wetlands that can potentially be filled under this policy, provided that unique plant and animal species are not present on these sites (see Condition 2.a. above). Mitigation shall include protection and maintenance of the flood/storm water control and water quality improvement function on or immediately offsite in the same drainage basin. The habitat functions for these wetlands can be mitigated off-site.

The basis for these recommendations is that the maintenance of stormwater/floodwater control and water quality control functions, especially in upper watershed wetlands within developed areas, is critical to the maintenance of the habitat functions of downstream wetlands. Many of the upper watershed wetlands will have over 20% of their contiguous basin developed in impervious surfaces. In fact some drainage basins are anticipated to have 60 - 80% of the portion of the basin in the Subarea in impervious surfaces. Therefore, it is likely that these wetlands will have water level fluctuations that significantly reduce species richness for plants and amphibians. Additionally, these wetlands are isolated and located several thousands of feet from adjoining wetlands, wildlife corridors and riparian corridors and have, therefore, limited importance to wildlife and low performance of habitat functions. In these circumstances, it may be acceptable to move the habitat function to a larger offsite or out of basin wetland ecosystem that has a higher potential to provide significant gains in the habitat function.

When the water quality improvement and stormwater control functions of a wetland are required to be maintained on or immediately adjacent to the site, they can be incorporated into wetpond design for a proposed development. These existing functions, however, must be provided in addition to what is required to treat and detain stormwater per City standards for a new development or redevelopment. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)

3. When an applicant proposes to fill or alter all or a portion of a wetland, the wetland replacement ratios shall be per the requirements of Chapter 37 of the Zoning Code unless otherwise described below. Conceptual and detailed mitigation plans must be approved by the Planning Director per the requirements of Chapter 37 of the Zoning Code. The following potential mitigation sites/activities shall be considered:
  - Creation or enhancement of wetlands and buffers where the mitigation would result in connection of isolated habitat or widening narrow riparian or wildlife corridors. Where significant additional upland buffers/wildlife corridors and connections are created and the overall habitat function is increased beyond what would have occurred with the creation and enhancement by itself using Zoning Code replacement ratios, the Planning Director shall have the discretion to reduce wetland replacement ratios down to a minimum of 1:1.

# Habitat Function

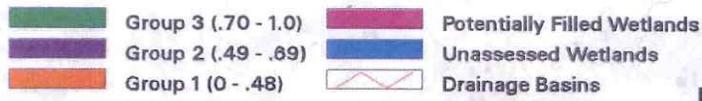
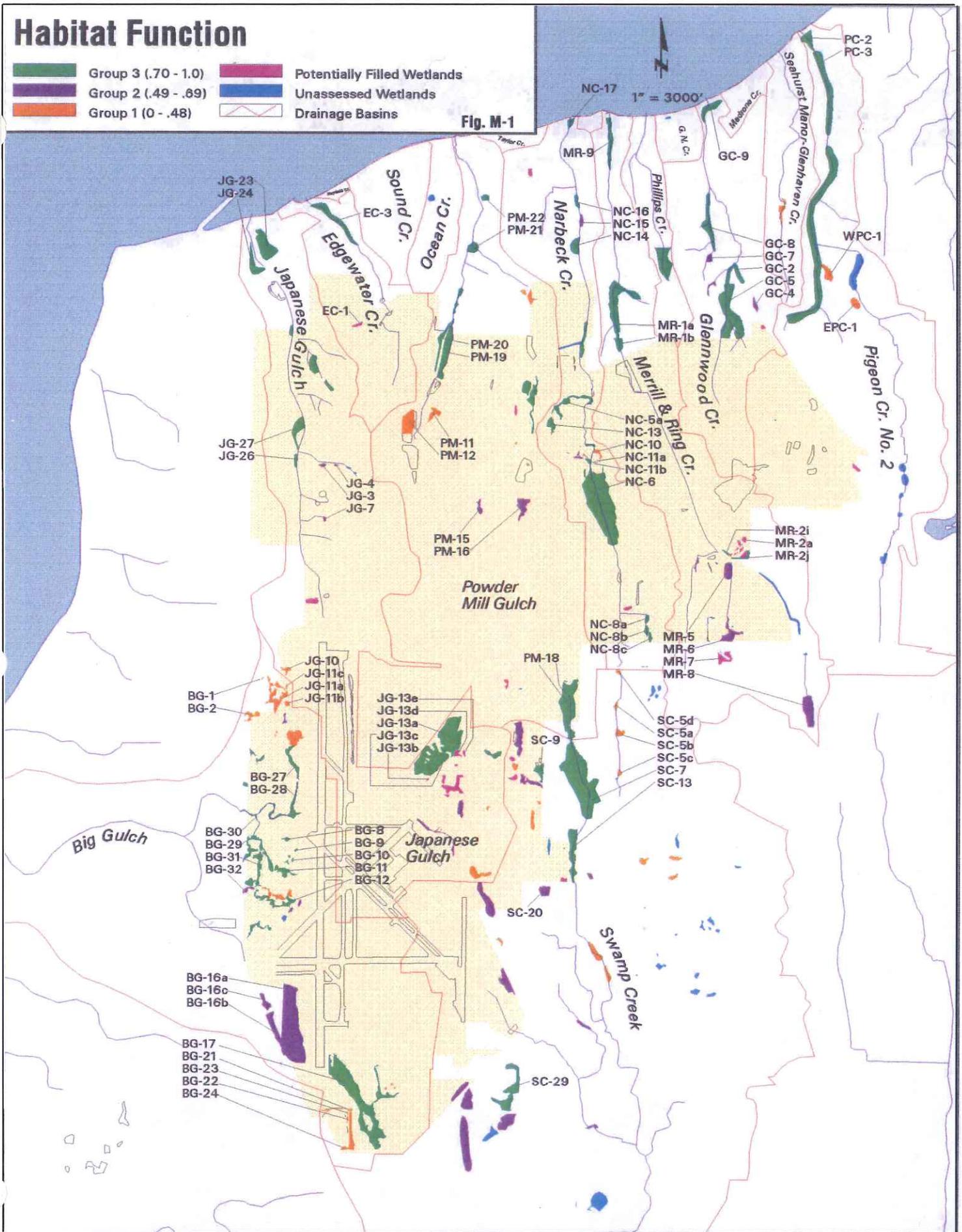


Fig. M-1



- Table 3.4-6 provides a summary of potential wetland mitigations by basin.

Note that where mitigation measures include raising the elevation of outlets in flow through riparian systems, the mitigation will be subject to site-specific analysis addressing the feasibility of the mitigation. The mitigation shall not be used for meeting on-site stormwater detention requirements. The intent is to create additional wetland and increase the range of water depths to approximately .5 to 2 feet so that a mosaic of emergent, scrub shrub and open water habitat would be created. The intent is to significantly improve the habitat functions.<sup>8</sup> The detailed wetland mitigation plan/report must demonstrate that wildlife habitat will be significantly improved by the proposed mitigation and that raising the outlet elevation will not result in degradation of the existing wetland. Mitigation must also be designed to ensure that stability of adjacent slopes is not impacted and that the mitigation will not adversely impact adjacent or downstream properties.

- Acquisition of properties containing wetlands that would otherwise be filled in order to permit reasonable use of the property, rather than constructing compensation/mitigation. The Planning Director must approve the specific wetland site to be acquired. These properties must be permanently protected by deed restrictions, dedication to the City, or other means approved by the Planning Director. If the City establishes a fund to purchase "reasonable use" properties, the applicant may be permitted to contribute to such a fund. The amount of the contribution will be determined per an administrative manual developed at time of creation of the fund.
- Mitigation in drainage basins outside of the Study Area may also be approved by the Planning Director, subject to a case-by-case analysis. For example, mitigation may be proposed in the North Creek or Swamp Creek drainage basins, or in the Snohomish River estuary. At this time, there is no scientific basis for trading off wetland functions for "out-of-kind" mitigation (such as creating estuarine wetland to compensate for palustrine or riparian wetlands). Therefore, when out-of-kind mitigation is proposed, mitigation ratios found in Chapter 37 of the Zoning Code shall be doubled at a minimum, with the actual mitigation ratio to be determined by the Planning Director.
- If the City or other agency establishes a functioning mitigation bank that is performing wetland functions satisfactorily, the applicant may, subject to a case-by-case approval by the City, be allowed to purchase credits rather than constructing compensation/mitigation. For a City bank, mitigation shall be provided per an administrative manual developed at time of creation of the mitigation bank. If the mitigation bank is established by another agency, mitigation ratios shall be per the City Zoning Code or the agency banking agreement, whichever is greater. (SEPA Land and Shoreline Use, Water, and Plant and Animal Policies)

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<sup>8</sup> Restricting the outlet can also significantly improve the water quality improvement functions, while also providing some stormwater detention function (see the Wetland and Buffer Functions Semi-Quantitative Assessment Methodology). However, the mitigation cannot be used to meet required stormwater treatment and detention requirements.

**Table 3.4-6  
Summary of Potential Wetland Mitigations by Basin**

<b>Basin</b>	<b>Potential for Enhancement of Hydrological Support, Flood/Storm Water Control Functions</b>	<b>Potential for Enhancement of Water Quality Control Functions</b>	<b>Potential for Enhancement of Habitat Functions</b>
<b>Big Gulch Basin</b>	Yes - Create check dams to pond water for B27-30 and BG16a,b,c	Yes - Measures recommended for previous function should be implemented	Yes but limited - Scrub/Shrub enhancement on BG 16a,b,c (also buffer plantings) and BG28,30 and coniferous plantings on BG28, 30
<b>Japanese Gulch Basin</b>	Little potential on existing wetlands - already performing at high level	Little potential - Raise the outlet elevation for JG 7 and 10	Yes but limited mainly to replanting the riparian buffer along the middle and lower reaches of Japanese Gulch Creek.
<b>Edgewater Creek</b>	Yes - enhancement and creation of this function in the upper watershed	Yes - raise the outlet elevation of EC3	Yes - habitat structure for EC3 would be improved through additional flooding recommended under water quality control function.
<b>Powder Mill Gulch</b>	Limited because of extent of development in upper basin. Increase height of outlet on PM18 to increase flood and stormwater control	Limited because of extent of development. Increase height of outlet on PM18	Limited - enhance habitat in PM 11, 15, and 16 through coniferous and scrub/shrub plantings and additional buffer plantings.
<b>Narbeck Creek</b>	Yes - Create and enhance wetland north of Narbeck Swamp (NC6)	Yes - Create and enhance wetland north of Narbeck Swamp (NC6)	Yes - Create and enhance wetland north of Narbeck Swamp (NC6). Control cutting of forested slopes in Narbeck Creek and replant with more diverse coniferous species. Other wetlands in the upper watershed such as 7 and 8a,b,c have limited biological significance.
<b>Merrill and Ring Creek</b>	Yes - raise the outlet elevation or berm the outlets of MR5 to 8. Create wetland within ravine north of Upper Ridge Road and adjacent to Hardeson Road by raising the outlet elevation. Create additional wetland at MR6.	Yes - Same recommendations as for the Flood/Storm water control function. Also consider raising the outlet elevation of MR9 (without affecting fish passage).	Limited - most of the degraded wetlands in the upper watershed (MR2 to 8) are isolated, near major roadways, and have limited biological significance. MR6 can be expanded/enhanced to create much more diverse habitat.
<b>Phillips Creek Basin</b>	Yes - create additional wetland by raising the outlet elevation of PHC1	Yes - raise the outlet elevation of PHC1	None identified
<b>Glenwood Creek Basin</b>	Yes - Infiltration function presently occurring in Associated Sand and Gravel operation must be maintained when operation closes in future.	Yes - Water quality treatment function provided by infiltration at sand and gravel operation must be maintained in order to protect high performing downstream wetland functions. Increase flooding in GC9 (without affecting fish passage).	Yes - Enhance GC2,4,5, and 7 with scrub/shrub, forested and buffer plantings. Create more diverse wetland habitat structure in GC9 by removing fill.
<b>Glenhaven Creek Basin</b>	Little Potential	Little Potential	Little Potential

Pigeon Creek #2	Yes - Maintain infiltration function provided by Associated Sand and Gravel operation in upper watershed. Remove sediment from PC2 and raise the outlet elevation without affecting fish passage. Expand and enhance wetland along east fork between 74th and Madison.	Yes - Maintain infiltration function provided by Associated Sand and Gravel in upper watershed. Remove sediment from PC2 and raise the outlet elevation. Raise the outlet elevation on WPC1 and EPC1. Expand and enhance wetland along east fork between 74th and Madison.	Yes - Create more diverse emergent, scrub/shrub and forested wetland by restoring PC2 (remove sediment, create open water). Create more diverse habitat by expanding and enhancing wetland along east fork between 74th and Madison.
Swamp Creek	Yes - Create and enhance wetland on Walter Hall Golf Course including wetlands SC5a,b,c,d and raise the outlet elevation of SC13.	Yes - Implement previous recommendations for Flood/Storm Water Control Functions.	Limited Potential - The wetlands that are not directly on Swamp Creek and less than 1 acre are isolated wetlands with limited biological significance.

4. Development of a project site must not result in significant adverse effects to the hydrology of wetlands on or adjacent to the site. Prior to application for Public Works permits and plan review by the Engineering and Public Services Department, a characterization of the hydrology of the wetland(s) on or adjacent to this project that may be affected by the development of this site must be submitted to and approved by the Planning and Public Works Departments. The information submitted for approval must also make recommendations regarding the rate and/or volume of stormwater which could be discharged to the wetland after development without adversely impacting the wetland. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)
5. Natural wetlands and wetlands created for wetland mitigation may not be used to meet stormwater detention requirements. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)
6. Discharge of water to wetlands must mimic natural discharges as much as is feasible. Point source discharges shall not be created where they do not naturally occur. Techniques that result in dispersed discharge, such as dispersion trenches or buried perforated pipe located at wetland buffer edges, can be used to mimic naturally occurring sheet flow into wetlands. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)
7. The large bog/shrub/forested wetland in east Kasch Park must be protected from stormwater inputs, which will degrade the bog by raising pH and the nutrient level. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)
8. All trash located in the preserved wetlands, streams, and their associated buffers must be removed. Trash removal should occur on at least a semi-annual basis following completion of construction. (SEPA Plant and Animal, Water, and Land and Shoreline Use Policies)

#### 3.4.3.5 Mitigating Impacts of Development on Water Quality and Groundwater

1. Developments with hazardous materials on-site, including fuel tanks, must comply with all applicable local, state and federal requirements. All developments using toxic or hazardous materials must incorporate facilities and procedures for the safe handling and effective

monitoring of toxic or hazardous materials, which include spill entrapment, training, and special handling, thus reducing the potential for release of hazardous or toxic materials to the groundwater system. (See Section 3.6 of this DEIS) (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)

2. Staging areas for vehicle maintenance activities during construction must be specified. These areas must be well away from all drainage courses. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
3. Application of fungicides, herbicides, insecticides, and fertilizers is prohibited on all sites from January through April when soils are frequently saturated and storm events generate substantial runoff. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
4. All storm drains must be stenciled with language similar to the following: "Dump No Waste, Drains to (Stream/Wetland/Groundwater)." This reminder is typically spray-painted on to the ground adjacent to the catch basin with the use of a stencil. The treatment needs to be repeated, approximately annually, when the paint wears off. The developer/owner may either perform the stenciling, or give permission for volunteer groups to enter onto the property and perform the stenciling. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
5. During construction activities, all spills must be contained and removed in such manner as to prevent their entering the waters and soils of the state. Cleanup of spills shall take precedence over other work on-site. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
6. Any new airplane fueling stations shall:
  - Minimize the potential for aviation fuel spills to enter the stormwater drainage system, by implementing source control options such as the following. The detailed design shall be reviewed and approved by the Responsible Official and Engineering and Public Services Director.
  - install new coalescing plate separator to serve surface runoff from new fueling stalls;
  - install a stormwater cut-off trench by the airplane wing fueling ports for new fueling stalls; and
  - install piping valving and an automated control system to divert dry weather runoff to a holding tank for periodic pump-out.Alternatively undertake a technical analysis and develop a plan that provides equal or better protection of the surfacewaters. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
7. For any new airplane fueling stations, the following measures shall be implemented after review by the Responsible Official and Engineering and Public Services Director.
  - Provide an ongoing employee training program to minimize the number of accidental fuel spill incidences.
  - Provide a spill control plan to control spills when they occur.(SEPA Water, Plant and Animal and Land and Shoreline Use Policies)

8. Airplane Washing Areas: Any new airplane washing or de-icing areas shall be hydrologically isolated from the rest of the site and wash water from the area must drain to the sanitary sewer after being routed through a baffle-type oil/water separator designed to City standards. When not being used for washing or de-icing, the stormwater from these areas is discharged into the storm water system. An industrial pretreatment permit from the City's Public Works Department will be required for connection to the sanitary sewer. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
9. Sites that use firefighting foam (AFFF) must construct containment systems for an acceptable ratio of potentially released foam and solution. The acceptable ratio shall be determined by the Responsible Official in consultation with the Department of Ecology and Public Works Department. The solution can then be metered out at a rate that would not impact wastewater treatment plants or aquatic insects. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)
10. On sites with a previous history of water quality violations, an analysis of water quality impacts will be required at time of application for any expansions. The City may require additional measures more stringent than contained in the City's Stormwater Management Manual and Design and Construction Standards and Specifications or measures specifically tailored to address the particular site's impacts. (SEPA Water, Plant and Animal and Land and Shoreline Use Policies)

### **3.4.4 Additional Recommended Actions that Would Improve Environmental Conditions in the Subarea**

The following measures are actions that can be taken by the City or other agencies to improve environmental conditions in the Subarea. These measures would not be required for development of specific project sites.

#### **General**

1. Retrofit stormwater runoff treatment facilities for road runoff when feasible. Many of the roads constructed in the Subarea in the past, as well as past developments, have not included water quality treatment of stormwater runoff such as wetponds or vegetated swales. All pollutants emitted in these areas wash directly into the stormwater system and streams. The City has standards for retrofitting stormwater treatment facilities on sites where expansion or renovation is occurring. As widening or other reconstruction of roads is proposed in the Subarea, the City and County should evaluate the possibility of adding stormwater treatment facilities to treat road runoff, and retrofit the systems when feasible. (This is often difficult since stormwater treatment was not considered in the design of existing facilities, and stormwater often discharges at many points along a roadway.) The City and County should also continue to monitor the feasibility of new technologies for underground water quality treatment. This design issue must be addressed in future SEPA reviews for transportation improvement projects.

### **Japanese Gulch Basin Mitigation**

1. Evaluate the feasibility of improving anadromous fish access. Measures could include retrofitting the Burlington Northern culvert in the lower reach, removing the concrete flume, and restoring the stream channel.
2. The City should complete the update of the City's Drainage Basin Plan for Japanese Gulch.

### **Edgewater Creek Basin Mitigation**

1. The April 1992 Port Gardner Bay Drainage Plan Update Report No. 5 calls for upgrading two undersized storm drains on Mukilteo Boulevard and modifying other drainage structures to provide peak flow mitigation. The City should pursue these facilities.

### **Powder Mill Gulch Basin Mitigation**

1. Pursue reintroduction of resident cutthroat trout in Powder Mill Gulch Creek. If the water quality of this stream remains stable, and if an adequate population of aquatic insects develops, the reach between Seaway Boulevard and Mukilteo Boulevard would be appropriate for the introduction of resident cutthroat trout. However, restoration or creation of salmonid habitat downstream of Mukilteo Boulevard would be difficult and is not recommended. The culvert under Mukilteo Boulevard acts as a physical barrier to migration; the stream below this culvert is quite steep. The culverts passing under the Burlington Northern Railroad tracks also bar upstream salmonid migration.
2. The City should work with residents to redesign problematic residential stormwater outfalls in order to improve channel conditions, reduce erosion, and reduce sediment loads.

### **Narbeck Creek Basin Mitigation**

1. Support Narbeck Swamp wetland restoration and creation. Paine Field and the Fluke Corporation are planning to make improvements to Narbeck Swamp as mitigation for other development projects.
2. Revegetate cleared hillsides and creek habitat in the lower third of the drainage (residential areas) in order to stop landslides.
3. The City should work with property owners to inventory problem stormwater outfalls, and implement a retrofit program. Narbeck is experiencing significant local erosion problems as a result of poorly designed stormwater outfalls from residential development. Identification and correction of these problem outfalls is an inexpensive means of significantly improving habitat in these streams. Some outfalls can be routed to dispersal pipes laid on contour with rip-rap to disperse energy. Others can be improved simply by taking the pipe all the way to the channel rather than discharging at the top of the steep erodible gorge.

### **Merrill and Ring Creek Basin Mitigation**

1. Enlarge regional detention facilities to provide additional control of high flows and improve the habitat potential of this stream.
2. The City should construct a regional detention facility south of Westridge Mobile Home Park as proposed in the April 1992 Port Gardner Bay Drainage Plan Update Report No. 5.

### **Phillips Creek Basin Mitigation**

No basin specific mitigation recommendations.

### **Glenwood Creek Basin Mitigation**

1. Glenwood Creek suffers from channel erosion due to increased flows from urbanization. Divert stormwater runoff from Glenwood Avenue out of the stream and directly to Puget Sound in order to improve the channel conditions of Glenwood Creek. The City of Everett has already expanded the bypass drain system, and further improvement may not be necessary.

### **Glenhaven Creek Basin Mitigation**

No basin specific mitigation recommendations.

### **Pigeon Creek #2 Basin Mitigation**

1. Create a regional detention pond on Associated Sand & Gravel property in order to reduce peak flow rates and channel erosion in Pigeon Creek #2.

### **Swamp Creek Basin Mitigation**

1. Implement the Swamp Creek Drainage Basin Plan recommendations for water quality improvement, stream channel and wetland enhancement and restoration projects. These actions would be implemented by Snohomish County and other governmental agencies, rather than developers. Implementing these recommendations would improve water quality, flooding and habitat conditions downstream. Following are some of the recommendations that assume participation or support by Everett:

#### *Administrative Actions*

- Increased construction inspection and plan review.
- Staff workshops.
- Formation of an emergency pollutant response network.

#### *Finance*

- Provide wetland retention incentives, such as property tax relief, increased densities for upland portions of site, acquisition of wetlands, etc.

#### *Interagency/Governmental Coordination*

- Support Snohomish County's efforts to implement a plan for deterrence of illegal waste disposal in the watershed.
- Superfund site coordination.

#### *Land Acquisition*

- Participate in the cost of an inventory of important riparian corridors/wetlands throughout the Swamp Creek watershed, and in the protection of identified parcels through acquisition or other means.

#### *Producing Alternative Analysis*

- Golf course drainage into the tributary from Walter E. Hall golf course may contain fertilizers, pesticide, and herbicides that can negatively impact water quality. The City should meet with golf course owners to discuss management plan and objectives, and conduct a field reconnaissance and monitoring effort to characterize golf course drainage.

### **3.4.5 Other Potential Mitigation Measures (Not Recommended)**

#### **3.4.5.1 Mitigating Impacts of Development on Vegetation and Wildlife**

1. Conduct vegetation surveys. Vegetation surveys can identify potentially valuable plant resources, from rare or uncommon species to communities of high local diversity and pockets of undisturbed native vegetation. The results of such a survey can be used to identify areas that may be better devoted to parks or conservation easements than to development. Because of the limited extent of coniferous and mixed forest habitat, upland habitats that include significant conifers are among priority areas identified for reduced impact.
2. Design projects to minimize impacts to existing established native vegetation and natural landforms. For example, laydown, staging, and parking areas may be located in existing disturbed areas rather than in adjacent established vegetation. Protection of existing vegetation on site will reduce erosion as well as protect plant and wildlife. Where protection is not practical, disturbed areas should be revegetated as soon after disturbance as possible.
3. Retain conifer trees whenever feasible, including conifers on portions of sites not designated environmentally sensitive. In addition, snags could be retained to support populations of cavity nesting species, such as woodpeckers.
4. Conduct wildlife surveys to help identify existing movement corridors as well as areas where new movement corridors, developed as part of mitigation activities, would be most effective.
5. On development sites that are eliminating existing wildlife habitat, particularly forested habitat, require mitigation of development impacts by enhancing remaining wildlife habitat in other portions of the study area. Mitigation could include contribution to a fund to purchase land to create wider wildlife corridors in the study area, or to secure the east-west

corridor across the Bhend property. Shade-tolerant conifers like Western hemlock, Western red cedar, and Sitka spruce could be planted in the understory of existing deciduous forests to augment the development of mixed and coniferous forest. Other off-site improvements could include removal of exotic vegetation (particularly Himalayan blackberry, Scot's broom, and English ivy) and replanting of native species. Reforestation in areas that can serve as wildlife movement corridors could improve wildlife populations as well as plant communities. In areas where significant improvements have been made, permanent protection from future development would be required by dedication of land, deed restrictions, or native growth protection easements.

6. The City could provide tax incentives for provision of wildlife habitat/corridors beyond that required by the City.
7. Other communities have provided corridors for wildlife under busy roadways to connect areas of wildlife habitat.

#### **3.4.5.2 Mitigating Impacts of Development on Streams, Fish and Fish Habitat**

1. Encourage developers to provide understructure parking or parking structures to reduce the amount of impervious surface and pollutants in stormwater runoff. (Under current market conditions, this isn't likely to occur.)

#### **3.4.5.3 Mitigating Impacts of Development on Water Quality**

1. Require developments to provide educational signs to communicate the importance of water quality, to benefit both the environment and the public when the site's water quality treatment facilities are visible to employees or the public.
2. Require turbidity sampling for all projects in the construction phase. Additional erosion control measures would be required by the City if State standards for turbidity were exceeded. (The City currently does turbidity testing on some City projects, but testing has generally not been required for private projects. Turbidity testing was required during construction of one residential plat. The equipment to do turbidity testing costs approximately \$1,000 - \$2,000. There is no additional cost to test samples.)
3. When proposed development includes substantial potential sources of surface or ground water pollution and the site contains wetlands, require monitoring of water quality of stormwater runoff to wetlands for 2 years after issuance of occupancy permits to ensure that pollutants are not entering wetlands. Any site design problems found as a result of monitoring must be corrected.

#### **3.4.5.4 Mitigating Impacts of Development on Groundwater**

1. Require hydrogeologic studies for any project that may impact groundwater aquifers. Recommendations of the studies must be implemented as part of the development.

## **3.5 AIR QUALITY AND ODOR**

### **3.5.1 Proposed Threshold**

All permitted future uses must obtain a Notice of Construction (NOC) as applicable and use best available control technology. As necessary, air quality studies may be required by PSAPCA in order to obtain permits.

Uses not being covered in this EIS are listed in Table 3.1-1 in the Land Use Section. Examples of uses that are not being covered because they may have significant air quality impacts are mining activities, cement and asphalt manufacturing, composting facilities, dog and cat food manufacturing, fish processing, and landfills. Additional SEPA analysis will be required for these uses.

### **3.5.2 Mitigation Required by Existing Regulations**

Existing regulations that will apply to some or all proposals are listed below. All development must comply with the regulations in effect at time of application.

#### **Puget Sound Air Pollution Control Agency and Department of Ecology**

##### **Criteria Air Pollutants**

Based upon the Federal Clean Air Act requirements, the Environmental Protection Agency (EPA) established national ambient air quality standards (NAAQS) for six common pollutants: carbon monoxide, particulate matter less than 10 micrometers in diameter, ozone, sulfur dioxide, lead and nitrogen dioxide. Federal law requires that these standards be met and establishes deadlines for states to develop and implement plans to achieve the air quality standards. Geographic areas in which a primary or secondary standard is violated are designated as "nonattainment areas" for the particular pollutant.

The Washington State Department of Ecology (DOE) and the Puget Sound Air Pollution Control Agency (PSAPCA) administer the provisions of the Clean Air Act and operate monitoring stations to evaluate conformance with the Act. DOE and PSAPCA have established state and local ambient air quality standards for the six criteria pollutants listed above that are at least as stringent as the national standards.

##### **Non-criteria Pollutants: Toxic Air Contaminants and Point Sources**

Toxic air contaminants (TACs) are non-criteria pollutants which include chemical emissions, some of which are highly carcinogenic even in minute quantities. Ecology and PSAPCA have established Acceptable Source Impact Levels (ASILs) for over 650 TACs. ASILs represent incremental ambient air impact concentrations for air emissions "point" sources, and are based on established workplace exposure standards and an added safety factor. Existing and future TAC emissions sources must meet the applicable ASIL. Sources of TACs include a variety of

manufacturing, industrial and commercial operations, such as dry cleaners, chrome plants, autobody shops, etc.

### **New and Modified Sources of Air Pollution - RCW 70.94, Chapter 173-400 WAC, and PSAPCA Regulations I, II, and III**

PSAPCA is responsible for permitting all new or modified sources of air pollution in Everett (except pulp mills and aluminum reduction plants, which are permitted by DOE). PSAPCA fulfills its responsibilities by implementing Regulations I, II, and III, which are based primarily on state and federal regulations.

#### **Regulation I**

Notice of Construction Permits: PSAPCA requires all proposed new air emission sources to submit a notice of construction (NOC) and application for approval, commonly called an NOC application. All new or modified sources within the region and state must apply best available control technology (BACT) and limit the impact of emissions on ambient air to levels below the ASIL. In addition, new air emission sources must not violate any federally established new source performance standard (NSPS), National Emission Standard for Hazardous Air Pollutants (NESHAP), national ambient air quality standard (NAAQS), and state and local ambient air quality standards.

Regulation I also includes emission standards for opacity, sulfur dioxide, odors, and fugitive dust.

In addition to an NOC permit application, major new sources of air contaminants may be required to submit a prevention of significant deterioration (PSD) permit application to Ecology. The decision to require a PSD permit depends on the type of source and the magnitude of the source's proposed potential emission increases. The PSD application must include a project description, a BACT analysis, an ambient air quality impact analysis, and an additional impacts analysis. Ecology and PSAPCA coordinate their efforts during the application review process when a source is required to submit both NOC and PSD applications.

PSAPCA has identified "insignificant sources," which are exclusions and do not require an NOC. These include uses such as:

- Insecticide, pesticide, or fertilizer spray equipment.
- Laboratory equipment used exclusively for chemical or physical analyses.
- Dryers or ovens used solely to accelerate evaporation.
- Welding, brazing, or soldering equipment.
- Asphalt roofing and laying equipment.
- Restaurants and other retail food-preparing establishments.
- Retail printing operation (not including web presses).
- Spray painting or blasting equipment used at a temporary location to clean or paint bridges, water towers, buildings or similar structures.

Registration and Inspection of Air Contaminating Operations and Equipment. Within the Subarea, many different kinds of air contaminating operations and equipment are registered with and regularly inspected by PSAPCA. Among the larger sources of significance to PSAPCA are those emitting five tons or more of volatile organic compounds or toxic air contaminants (TAC) per annum; and those emitting 25 tons or more of particulate matter, oxides of sulfur, oxides of nitrogen or carbon monoxide per annum.

Misc. Regulation I also includes sections on general provisions, civil penalties, enforcement, investigation; continuous emission monitoring and periodic source testing requirements; and outdoor fire and wood stove regulations. Outdoor burning is not permitted at any time in the Everett Planning Area.

## **Regulation II**

Regulation II deals with volatile organic compound emission standards and deals primarily with gas stations, petroleum refineries, gas terminals and bulk plants, graphic arts, surface coaters, and the aerospace industry.

## **Regulation III**

Regulation III regulates toxic air contaminants from specific sources (such as dry cleaners, vapor degreasers, and chrome-platers) and other new or existing sources that exceed the allowable source impact levels for over 650 toxic air contaminants.

Regulation III also regulates asbestos removal and demolitions. Prior to most renovation or demolition work, an asbestos survey must be completed. PSAPCA must be notified and acceptable work practices and disposal methods employed.

The rules are enforced via inspections and fines.

## **Odors**

PSAPCA is a local agency responsible for regulating odors and addressing odor complaints. PSAPCA's Regulation I, Section 9.11 regulates emissions that are public nuisances, specifically, those that are "injurious to human health, plant or animal life, or property, or which unreasonably interfere with enjoyment of life and property." Section 9.12 prohibits the emission of odor-bearing air contaminants unless best available control technology is used to control the emissions.

PSAPCA can still regulate non-permitted activities if complaints are filed and can require that improvements be made to reduce impacts. PSAPCA has adopted guidelines to prioritize response when complaints are filed, with the response based upon whether the source is identified and is in progress, the impact of the source on the complainant, and whether the impact is health related.

Odor issues are generally dealt with on a complaint basis, rather than in the permit process, since most sources of concern already exist. The Snohomish Health Department may also

become involved in dealing with odor complaints on permits that they have issued on landfills, composting operations, and restaurants.

### **City of Everett**

#### **City of Everett Commute Trip Reduction Ordinance (E.M.C. 46.68)**

The City's Commute Trip Reduction (CTR) Ordinance was established in 1993 per State requirements to reduce auto-related air pollution, traffic congestion and energy use. It requires that employers of 100 employees or more develop and implement a CTR program that will encourage its employees to reduce vehicle miles traveled (VMT) per employee and single occupancy vehicle (SOV) commute trips.

### **Zoning Code**

Section 39.140 of the City's Zoning Code states that "any odor which injures or endangers the health or safety of persons or interferes with the use of abutting properties or streets is a violation of this ordinance. Emissions to air shall comply with the standards of the State Department of Ecology and the Puget Sound Air Pollution Control Authority."

The M-1 Office and Industrial Park Zone and M-M Business Park Zone standards require that equipment or vents which generate air emissions shall be located on the opposite side of the building from adjoining residentially zoned properties.

### **Public Works Design and Construction Standards and Specifications Manual**

The City's Public Works Standards and Specifications Manual requires that rock stabilized temporary entrance pads be provided to construction sites. The construction entrances must be a minimum of 50 feet long and 15 feet wide and be constructed of large rock (quarry spalls) a minimum of 8 inches thick. (Oil treated accesses are not permitted.) Where the entrance is not sufficient, Engineering and Public Services requires that trucks exiting the site have their tires and wheels cleaned by sweeping, brushing, or washing prior to entering the public right-of-way.

City streets must be kept clear of dirt and debris at all times during construction. Dust suppression and street cleaning must occur as directed by the Public Works Inspector.

### **3.5.3 Recommended Mitigation Measures**

1. Regardless of their compliance with existing pollution control regulations, certain uses historically generate the majority of odor complaints received by PSAPCA. Those uses of greatest concern in this regard include industries that use fiberglass resin and varnish, spray painting (including paint hangers and outdoor spray painting), metal finishing, breweries and wineries, and loading areas (diesel emissions). The following restrictions shall be placed on these uses:

Truck loading and maneuvering areas. These uses are currently prohibited within 130 feet of residential areas in the M-1 zone and 100 feet of residential areas in the M-M zone. These zones cover the majority of the portion of the Subarea abutting residential properties. Exceptions include a small B-1 parcel and a small C-2 parcel along the eastern boundary of the Subarea. Requiring even a 100 foot setback from residential areas for loading could overly restrict development of these two sites. Development on these sites shall be designed to limit the impacts of loading areas on residentially zoned property.

Breweries and wineries shall be prohibited within 350 feet of residential areas and the Sno-Isle Skills Center unless an air quality study completed by a qualified expert shows the use will not result in odors in the residential/school area. Larger-sized breweries (e.g., Rainier Brewing) must have a minimum separation of 350 feet. When located between 350 and 1,000 feet of a residential/school area, a study must be completed to demonstrate that the brewery will not result in significant odor impacts on residential areas and the Sno-Isle Skills Center.

Metal finishing, fiberglass resins, varnish: Businesses that regularly finish metal and/or use fiberglass resin and varnish as a primary part of their manufacturing activities shall be prohibited within 300 feet of residential areas and the Sno-Isle Skills Center, unless an air quality study completed by a qualified expert shows the use will not result in odors in the residential/school area.

Paint hangers, outdoor spray painting. Businesses that include paint hangers and outdoor spray painting (completed outdoor, because objects are too large to spray inside) shall be prohibited within 300 feet of residential areas and the Sno-Isle Skills Center, unless an air quality study completed by a qualified expert shows the use will not result in odors in the residential/school area. (SEPA Air Policies)

### **3.5.4 Other Potential Mitigation Measures**

1. The City could require that the uses listed in condition 1 above also be restricted within specified distances of other land uses characterized by odor-sensitive populations, e.g., offices, worksite day care centers, churches, and schools such as the Applied Technology Training Center.

The City could also require that land uses with odor-sensitive populations not locate within specified distances of existing uses such as breweries, wineries, paint hangers and businesses that finish metal, use fiberglass resins, varnishes, or outdoor spray painting.

2. PSAPCA commented that the 100 foot separation distance between residential areas and loading areas may be too stringent for material transfer/loading zones wherein the majority of vehicles are powered by natural gas or propane. The City could consider revising the Zoning Code to reduce the separation distance where businesses agree to place a permanent restriction on the use of diesel powered trucks.

3. The City could require paved construction entrances. In addition, the City could increase enforcement of dust suppression requirements during demolition, grading and construction activities. Dust suppression activities include watering sites, washing construction vehicles tires and frames prior to vehicles leaving the site, and covering trucks that carry soils.
4. Developers should ensure that appropriate emission control devices are installed on all construction equipment.
5. At time of permit issuance, the City should remind contractors that construction equipment should be turned off when not in use for long periods of time.
6. The City and the Economic Development Council could direct their economic development efforts towards attracting "clean" commercial, industrial, and manufacturing uses to the Subarea.
7. Buffers provided adjacent to residential areas will help minimize potential air quality impacts by increasing the distance between the source of pollution or odors and receivers. (See Section 3.1: Land Use)

## 3.6 ENERGY AND NATURAL RESOURCES

### 3.6.1 ELECTRIC ENERGY

#### 3.6.1.1 Proposed Threshold

The PUD No. 1 forecasts an adequate supply of electricity for the SW Everett/Paine Field Subarea. Special Property Use permits are required for aboveground utility facilities. These reviews will address landscaping and screening, view and compatibility issues.

#### 3.6.1.2 Mitigation Required by Existing Regulations

All utilities must comply with all applicable regulations in effect at time of application for permits. Existing regulations include the following.

##### **Snohomish County PUD No. 1**

The PUD is the lead agency for SEPA reviews of their facilities. The following electrical facilities are exempt from SEPA review (WAC 197-11-800):

- All electric facilities, lines or appurtenances, not including substations, with an associated voltage of 55,000 volts or less.
- The overbuilding of existing distribution lines (55,000 volts or less) with transmission lines (more than 55,000 volts).
- The undergrounding of all electric facilities, lines, equipment or appurtenances.

##### **City of Everett**

Public Works Design and Construction Standards and Specifications: Permits must be obtained from the Engineering and Public Services Department for all utilities constructed in the City right-of-way. The Public Works Standards Manual requires compliance with the WSDOT and APWA Standards and Specifications when locating underground utilities, in addition to the standards in the manual. The manual includes standards for trenching methods and patching, use of materials, equipment, timing and backfill.

Subdivision and Binding Site Plan Ordinances: The City's Subdivision and Binding Site Plan Ordinances (EMC Title 18) require that underground wiring be provided for all power lines carrying a voltage of less than 15 kV.

Zoning Code: The City's Zoning Code requires that aboveground utility facilities be approved by the Planning Director, with public notice provided to contiguous property owners in the C-2, M-M, M-1, and M-2 zones. A public hearing is required for facilities in the R-S and B-1 zones. The code establishes general criteria and specific criteria that must be met by aboveground utilities. These include requirements for landscaping or screening, compliance with the Comprehensive Plan, and a requirement that facilities be installed underground or in buildings

to the extent practical. View issues must be addressed in the Review Process II or III application for aboveground utilities.

GMA Comprehensive Plan: The Comprehensive Plan includes implementation measures under the Capital Facilities and Utilities sections which state: "The City shall minimize to the extent practical encroachment on view and solar access of existing residences by new utility facilities (capital facilities) or expansion of existing facilities or improvements."

### **3.6.1.3 Recommended Mitigation Measures**

1. All power lines carrying a voltage of less than 15 kV must be undergrounded. (SEPA Land and Shoreline Use Policies)
2. When maintaining corridors for aboveground lines near environmentally sensitive areas, to the extent feasible, the PUD shall leave cut tree stumps as snags for wildlife. The corridors must be replanted with native species that will not grow high enough to impact the lines. (SEPA Plant and Animal Policies)

### **3.6.1.4 Other Potential Mitigation Measures**

1. Conservation programs can reduce the existing or projected energy load on the electric system, thereby delaying the need for construction of new or expanded facilities to serve this load. The PUD plans to use a combination of conservation programs/techniques, system improvements, and resource options such as non-utility providers and independent power producers to assure adequate service to the growing Everett area. Power demand generated by development and growth could be altered slightly due to conservation efforts.
2. Demand side management programs are used by PUD No. 1 to change the customer's energy demand patterns. Large consumers, such as commercial and industrial businesses, are often the focus of demand side management programs. Usually, these programs encourage the customers to reduce usage during peak times and consume at off-peak times.
3. Changing from electricity to an alternative, less consumptive form of energy is another method of conservation referred to as fuel switching. The PUD also can partner with customers who have standby generation and/or co-generation potential.
4. Co-location of lines and facilities in existing utility corridors and rights-of-way can minimize construction impacts.
5. The energy requirements of the Uniform Building Code must be satisfied in the construction and renovation of new buildings. Energy conserving materials are encouraged in all new construction.
6. The PUD could purchase larger sites to improve aesthetics and other concerns in site development.

## 3.6.2 NATURAL GAS

### 3.6.2.1 Proposed Threshold

WNG forecasts an adequate supply of natural gas for the SW Everett/Paine Field Subarea.

### 3.6.2.2 Mitigation Required by Existing Regulations

All utilities must comply with all applicable regulations in effect at time of application for permits. Existing regulations include the following.

#### General

The Federal Energy Regulatory Commission, the National Office of Pipeline Safety and the City of Everett franchise agreement, which expires in April 23, 2001, regulate the delivery of natural gas. WNG is regulated by the Washington State Utilities and Transportation Commission.

#### City of Everett

Public Works Design and Construction Standards and Specifications: Permits must be obtained from the Engineering and Public Services Department for all utilities constructed in the City right-of-way. The Public Works Standards Manual requires compliance with the WSDOT and APWA Standards and Specifications when locating underground utilities, in addition to the standards in the manual. The manual includes standards for trenching methods and patching, use of materials, equipment, timing and backfill.

Zoning Code: The City's Zoning Code requires that aboveground utility facilities be approved by the Planning Director, with public notice provided to contiguous property owners in the C-2, M-M, M-1, and M-2 zones. A public hearing is required for facilities in the R-S and B-1 zones. The code establishes general criteria and specific criteria that must be met by aboveground utilities. These include requirements for landscaping or screening, compliance with the Comprehensive Plan, and a requirement that facilities be installed underground or in buildings to the extent practical. View issues must be addressed in the Review Process II or III application for aboveground utilities.

GMA Comprehensive Plan: The Comprehensive Plan includes an implementation measure under the Capital Facilities and Utilities section which states: "The City shall minimize to the extent practical encroachment on view and solar access of existing residences by new utility facilities (capital facilities) or expansion of existing facilities or improvements."

SEPA: All natural gas distribution (as opposed to transmission) lines and necessary appurtenant facilities and hookups are categorically exempt from SEPA review.

### **3.6.2.3 Recommended Mitigation Measures**

none

### **3.6.2.4 Other Potential Mitigation Measures**

1. Peak season and peak hour surcharges could be used to alter or reduce energy use.
2. Co-location of lines and facilities could be required to the extent feasible.
3. The energy requirements of the Uniform Building Code should be satisfied in the construction and renovation of new buildings. Energy conserving materials are encouraged in all new construction.

## **3.6.3 NON-RENEWABLE RESOURCES**

### **3.6.3.1 Proposed Threshold**

New mining activities are not addressed in this SEPA review.

### **3.6.3.2 Mitigation Required by Existing Regulations**

#### **Department of Natural Resources (DNR)**

Both Associated Sand and Gravel and Merrill Creek Associates operate under DNR mining permits. See Section 2.4 for additional information regarding the permits. The permits include requirements for reclamation of the sites following completion of mining activities.

#### **City of Everett**

Mining activity is not permitted on properties in the Subarea, except on the sites with existing permits.

### **3.6.3.3 Recommended Mitigation Measures**

1. Mining sites must comply with the Department of Natural Resources reclamation requirements. On sites with existing mined slopes which are not subject to DNR regulations, slopes must be remediated to 1.5 horizontal : 1 vertical (1.5H:1V), except for glacial till slopes which can be remediated to 1H:1V slope if approved by a qualified geotechnical engineer. All remediated slopes must be covered with top soil material that will support vegetation, jute matting or equivalent; and be revegetated with hydroseed, groundcover and shrubs. (SEPA Earth and Water Policies)

### **3.6.3.4 Other Potential Mitigation Measures**

1. During construction, clean construction debris should be sorted from other waste materials for recycling.
2. Manufacturing businesses could reduce use of packaging materials in their finished products and in their purchase of products.

## 3.7 ENVIRONMENTAL HEALTH

### 3.7.1 NOISE

#### 3.7.1.1 Proposed Threshold

All development in Everett must be in conformance with the requirements of EMC 20.08.

Additional analysis may be required for new jet engine run-up stations. (See Section 3.7.1.3, mitigation measure #1.)

#### 3.7.1.2 Mitigation Required by Existing Regulations

All development must comply with the noise regulations in effect at time of application for permits. Noise studies may be required at the time of application to confirm compliance with the ordinance. The applicant must incorporate into the development all recommendations of the study necessary to bring the development into conformance with adopted standards.

Existing regulations that will apply to development in the Subarea are described below.

##### City of Everett

Noise Control Ordinance (EMC 20.08). The City's Noise Control Ordinance is based upon State noise control regulations (Chapter 173-60 WAC), and sets limits for allowable noise within the City. Section 20.08.010A states:

*It is hereby declared to be the policy of the City to minimize the exposure of citizens to the harmful physiological and psychological effects of excessive noise. It is the express intent of the City Council to control the level of noise in a manner which promotes commerce; the use, value, and enjoyment of property; sleep and repose; and the quality of the environment.*

Noise control districts have been established based on land use zones. District I includes all residentially zoned districts; District II includes business and commercially zoned areas; and District III includes agricultural and manufacturing uses as well as other non-residential, non-business and non-commercially zoned areas. Maximum permissible noise levels by District (source and receiver) are listed in Table 3.7-3 below. Noise levels are measured in dBA.

**Table 3.7-3  
Maximum Permissible Noise Levels**

Sound Source	Receiving Property:		
	I	II	III
I	55	57	60
II	57	60	65
III	60	65	70

(Ord. 534-78 3(b), 1978)

Modifications apply to permissible noise levels under the following circumstances:

- Between 10 p.m. and 7 a.m. on weekdays, and between 10 p.m. and 9 a.m. on weekends, the maximum allowable noise levels are reduced by 10 dBA where the receiving property lies within District I (residential).
- For any sound which is of short duration, the maximum dBA is increased by 5 dBA for 15 minutes per hour, 10 dBA for five minutes per hour; or 15 dBA for 1.5 minutes per hour. This provision applies any time, day or night.

The following noises are exempt or partially exempt from the provisions of the Noise Ordinance:

exempt at all times:

- airport noise - including aircraft in flight and airport/flight operations;
- safety and protective noise devices;
- fire alarms;
- emergency equipment;
- auxiliary equipment on motor vehicles used for highway maintenance;
- officially sanctioned parades, sporting events, or other public events;
- warning devices not operated continuously for more than 30 minutes per incident;
- motor vehicles when regulated by Sections 20.08.060 - 20.08.080;
- natural phenomena;
- motor vehicles operated off-road (except within District I); and
- natural gas transmission facilities.

exempt/partially exempt:

- operation of railroad equipment or facilities;
- temporary construction sites - except between 10 p.m. and 7 a.m. weekdays and 6 p.m. and 8 a.m. on weekends;
- marine-oriented construction sites - except between 10 p.m. and 7 a.m. in District I;
- aircraft-engine testing and maintenance not related to flight operations - except between 10 p.m. and 7 a.m.; and
- motor vehicle racing events at authorized facilities.

exempt during daytime hours (20.08.110):

- powered equipment used in periodic or temporary repair of residential property (i.e. lawnmowers, power hand tools, composters, etc.);
- discharge of firearms on authorized shooting ranges;
- installation or repair of utilities;
- blasting;

- bells, chimes, or carillons not operating more than five minutes in any one hour; and
- noise originating from forestry or silvicultural activity.

noise exempt from nighttime reduction (20.08.120):

- stationery equipment used for conveyance of water by a utility and electrical substations; and
- noise from industrial districts which exceed the standards, and over the past three years have operated over 15 hours per day as a routine or as a processing necessity - no changes in these noise levels can occur without prior approval from DOE.

City of Everett Zoning Code. The M-1 Office and Industrial Park Zone and M-M Business Park Zone standards require that equipment or vents which generate noise be located on the opposite side of the building from adjoining residentially zoned properties.

The M-1 zone also requires that parking areas and truck loading and maneuvering areas be set back at least 75 feet from residential areas.

### 3.7.1.3 Recommended Mitigation Measures

1. Engine run-up noise is exempt during daytime hours from the City and County noise regulations, but can result in significant short-term noise levels in residential areas. Boeing is permitted to add additional engine run-up stations provided a noise study is completed which documents that noise levels will not exceed those established in the 1991 EIS for the Boeing Expansion. In order to reduce impacts on residential areas from engine run-up activities that exceed noise levels established in the 1991 EIS, one of the following options should be adopted as part of the mitigation strategy.
  - EMC 20.08 could be revised to require additional analysis for activities that are exempt from the ordinance, but are expected to exceed standard noise levels. These activities could be required to implement "reasonable" measures to reduce exceedances of standard noise levels as approved by the Administrator as established in EMC 20.08.
  - The threshold for the analysis of impacts in this Subarea Plan could be set to require any use that exceeds the standards in EMC 20.08 to submit additional SEPA analysis of noise impacts, even if exempt from the standards of EMC 20.08. This would allow the City's Responsible Official to require additional noise analysis and impose conditions to mitigate impacts beyond that required in the noise ordinance. (This was the process used to require additional mitigation for Boeing's engine run-up stations.) (SEPA Environmental Health Policies)

**This is a significant policy issue.**

2. Warning devices on vehicles (back up beepers) are exempt from the City's noise ordinance, but are perceived as irritating by most people. Developments that abut residential zones must be designed to shield vehicle maneuvering and loading areas from residential areas by placement of buildings, berms, etc. (SEPA Environmental Health Policies)

### 3.7.1.4 Other Potential Mitigation Measures

1. In 1995, the Everett City Council adopted a resolution supporting Paine Field's proposal to require that a formal Buyer Notification/Disclosure Statement be required prior to closing real estate transactions in an area identified by Paine Field as the "Airport Influence Area." The resolution recommended that Paine Field Airport provide information to all residents and property owners in the "Airport Influence Area," at least on an annual basis. This information should include at a minimum a discussion of the following: where its noise impacts are in the community, ongoing studies, and the airport's community outreach programs. This information should also be given to local Realtors, local Chamber of Commerces, and visitor centers for distribution to new residents and citizens in the area.
2. The City of Everett, Snohomish County and City of Mukilteo should ensure that zoning and land use designations around the airport do not allow uses that would be incompatible with airport operations.
3. Preservation of buffers between uses can minimize noise in abutting residential areas by increasing distance between the noise source and receivers. Dense vegetation composed of a mix of trees and shrubs and fencing can also reduce noise levels. Note that buffers are currently required by the Zoning Code and contract rezone conditions. See Section 3.1.
4. Measures to reduce the impacts of traffic include the following: (These are discussed in more detail in Section 3.2 Transportation)
  - Design transportation facilities to reduce noise impacts through measures such as depressed roadways and noise barriers.
  - Provide and encourage use of public transit, vanpools, carpools, telecommuting, and flextime.
  - Reduce and enforce neighborhood street and arterial speed limits.
5. Reduction in construction noise could be achieved by the following practices:
  - Requiring heavy equipment to have exhaust mufflers.
  - Minimizing outdoor construction during evening and nighttime hours beyond that required by noise regulations.
  - Turning off unused or idle equipment.
  - Minimizing metallic impacts.
6. Encourage development of low noise vehicles and equipment by making that a criteria for City purchases.
7. Through the use of new technologies, the amount of noise generated from manufacturing and processing could be reduced as manufacturers voluntarily install new equipment.

## 3.7.2 TOXIC/HAZARDOUS MATERIALS AND EXPLOSIVES

### 3.7.2.1 Proposed Threshold

This DEIS does not address the impacts associated with clean-up of contaminated sites.

### 3.7.2.2 Mitigation Required by Existing Regulations

All development must comply with the federal, state and local regulations in effect at time of application for permits regarding storage, handling and disposal of hazardous materials and hazardous wastes. All applicable permits must be obtained. Current requirements include, but are not limited to, the following:

1. If the future use of the site will result in the potential for accidental spills of chemicals, including oils or fuels, to the City's sanitary sewer, an Accidental Spill Prevention Plan will need to be prepared per the direction of the City of Everett's Industrial Pretreatment Program.
2. The storage handling and use of flammable or combustible liquids shall comply with Article 79 of the Uniform Fire Code, 1991 Edition, and subsequent amendments.
3. Secondary containment must be provided for storage of fuel and hazardous chemicals.

Single wall aboveground storage tanks shall be placed in a bermed, impervious area. The bermed area shall be paved with Portland cement concrete for permanent installations. The bermed area shall be large enough, and the berms high enough, to contain 110% of the largest tank's total volume or 10% of the total tank volume, whichever is largest. (City's Design and Construction Standards)

Hazardous waste generators regulated by WAC 173-303 must provide secondary containment in accumulation or storage areas. This containment must have sufficient capacity to contain ten percent of the volume of all containers or the volume of the largest container, whichever is greater (WAC 173-303-630(7)).

4. The following requirements apply to the installation or removal of underground and/or aboveground fuel storage tanks and fueling activities.

#### *Tank Installation:*

- a. Permits are required from the Fire Department for removal and installation of underground fuel tanks. The Fire Department has underground tank installation standards which require that specific information be provided to the Fire Department prior to the issuance of any permit to install tanks and the related dispensing equipment. The contractor must provide the Fire Marshal with specifications for tanks, piping, dispensers and leak detection equipment, or any other special equipment prior to installation.

- b. Installation of new underground storage tanks must meet the requirements of the new State Underground Storage Tank regulations (173-360 WAC). (Copies of these regulations and required forms are available from the Department of Ecology by calling (206) 407-7202, or toll-free in state 1-800-826-7716.)
- c. A notice of intent to install tanks must be filed with the Department of Ecology at least 30 days prior to installation. Within 30 days after coming into service, the tanks must be registered with the Department of Ecology on a state notification form.
- d. The supervisor on site during installation must be licensed by passing an exam administered by the International Fire Code Institute, or by another state with which Washington has a reciprocity agreement.
- e. A certified Stage II vapor recovery system is required on all new gasoline dispensing facilities with a total gasoline nominal storage capacity greater than 10,000 gallons.
- f. New tanks and any connected piping must be protected from corrosion by either a cathodic protection system, or by being constructed or coated with a non-corrosive material such as fiberglass. An acceptable method of leak detection must be employed, and the tanks must be equipped with spill prevention and overfill protection equipment.
- g. Either a spill containment system or an underground storage tank overfill prevention system shall be provided for areas where tanker transport to underground storage tanks occurs as detailed in the City's Design and Construction Standards and Specifications Manual and/or the City's Stormwater Management Manual.

*Fueling Activities:*

Installation and operation of fueling sites must be in accordance with the standards found in the Design and Construction Standards and Specifications Manual and/or the Stormwater Management Manual. The current standards require the following:

- h. A 55-gallon drum full of absorbent material shall be kept in a location convenient to the fueling island and tanker transfer areas. The absorbent material shall be used in the clean-up of any spills of gasoline or oil. In addition, an empty 55-gallon drum shall also be kept on the site for disposal of used absorbent. Instructions on responding to an accidental spill shall be made available to all employees and shall be posted in visible locations. (Design and Construction Standards and Specifications Manual)
- i. Signs must be posted noting the location(s) of the pump shut-off switch(es). (Design and Construction Standards and Specifications Manual)
- j. Fueling areas shall be covered to prevent the direct entry of precipitation and shall be graded or bermed to prevent the run-on of stormwater from adjacent areas. (Design and Construction Standards and Specifications Manual)
- k. Fueling areas shall be paved using Portland cement concrete. (Design and Construction Standards and Specifications Manual)

- l. The pavement under covered areas shall be graded, or "trench" or "valley" drains shall be located at the covered area perimeter along the downhill sides to collect runoff or washwater from the fueling areas. All collected runoff shall be rerouted through a spill containment vault with a 50-gallon (minimum) live capacity prior to discharge to the sanitary sewer. (Design and Construction Standards and Specifications Manual)
- m. An isolation valve shall be installed in the outlet piping from the spill containment vault. Whenever site configuration allows, the valve control shall be an aboveground hand-wheel. If only a below-ground valve control is feasible, the valve shall still be hand-operable and the lid of the valve control box shall be brightly colored to allow for easy identification. Signs indicating the location and purpose of the valve shall be posted at the fueling islands and at the attendant's station. (Design and Construction Standards and Specifications Manual)
- n. The vault lid shall be designed to vent vapors to the atmosphere and shall be constructed of non-sparking material. The pavement around the vault lid shall be graded or bermed to prevent the run-on of stormwater from adjacent areas. (Design and Construction Standards and Specifications Manual)
- o. Concrete-filled, steel pipe posts (see City Standard #510) shall be constructed and located where necessary to prevent vehicles entering the fueling area from striking the gasoline pumps. (Design and Construction Standards and Specifications Manual)

*Tank Closure/Removal:*

- p. A notice of intent to permanently close tanks must be filed with the Department of Ecology at least 30 days prior to closure. The closure must be completed within 60 days after expiration of the 30-day notice, unless a written request for an extension is approved (Chapter 173-360 WAC).
- q. The on-site supervisor, providing tank-closing services, must be licensed by passing an exam administered by the International Fire Code Institute, or by another state with which Washington has a reciprocity agreement. Within 30 days after closing, a permanent closure checklist form must be provided to the Department of Ecology by the owner. The checklist must be signed by the certified supervisor who was on-site during the closure.
- r. When closing tanks, a site assessment to determine whether contamination has occurred must be completed by a professionally qualified person certified by the International Fire Code Institute, effective January 1, 1995. The Department of Ecology's minimum requirements for sampling for contamination in the excavation area are outlined in a published guidance document. This document, forms and regulations are available from the Department of Ecology by calling 1-800-826-7716. Within 30 days after completion, the person who performed the site assessment must provide Ecology a site assessment checklist and results of the testing.
- s. If contamination of soil or groundwater is readily visible, or is revealed by sampling, the Department of Ecology must be notified within 24 hours by the owner and within 72 hours by the service providing supervisor. Call the regional office for assistance and

information about subsequent cleanup and to identify the type of testing that will be required. Contact the Environmental Report Tracking System Coordinator at the Northwest Regional Office at (206) 649-7148.

- t. The Department of Ecology requires the results of the site assessment be maintained for five years after completion of permanent closure or change-in-service. Ecology recommends that the records be kept in the property file indefinitely for any future property owners to fulfill liability requirements under the Washington Model Toxics Control Act.
- u. If contamination of the surrounding soils is discovered, and remediation will take place, an erosion control plan must be submitted for approval by the Engineering and Public Services Department.
- v. Prior to removal, the old tanks must be pumped out and the fuel properly disposed of. No product or rinse water may be disposed of in such a way that it could enter the storm drains system.
- w. If storage tanks contain dangerous or hazardous wastes as defined in Chapter 173-303 WAC, the applicant should contact the Northwest Regional Office, Hazardous Waste and Toxics Reduction Section for tank closure requirements.
- x. Based upon the lists of permitted uses in the Zoning Code, the City has determined that the land farming of petroleum contaminated soils is most similar to "Composting or recycling" activities. These uses are listed as permitted uses in the C-2 (Heavy Commercial - Light Industrial) and M-M (Heavy Manufacturing) zones through a public hearing process before the City's Land Use Hearing Examiner (Review Process IIIB).

The City will also allow the land farming of petroleum contaminated soils as an accessory use on the site where the contamination occurred.

- y. Tank removal should be performed during a period of expected dry weather to minimize potential erosion problems and contamination of runoff waters.

Additional existing regulations that will apply to some or all proposals are described below. Please note that regulations change. Contact the appropriate agency for specific proposals.

### **Federal Regulations**

The Resource Conservation and Recovery Act of 1976 (RCRA), 40 CFR 262-264. This establishes operating, maintenance and safety standards applicable to generators of hazardous wastes and to owners and operators of hazardous waste treatment, storage and disposal facilities.

The Hazardous Materials Transportation Act, 40 CFR 171-177, Subchapter C. This Act governs the transportation of hazardous materials. The Act lists and classifies hazardous materials for purposes of transportation; provides requirements for labeling and otherwise identifying transported materials; and provides parking requirements.

The Occupational Safety & Health Act (OSHA), 29 CFR 1910. OSHA establishes safety and health standards for the workplace.

The Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III, 40 CFR 355-372. SARA establishes procedures whereby communities (a) receive information on hazardous materials used in those communities to minimize danger of major releases that might be caused in the event of an emergency and (b) receive information about chemical releases into the environment.

Facilities storing or disposing of hazardous materials are required to maintain Hazardous Materials Incident "on-site" Spill Response Plans which must be periodically reviewed and updated, and copies made available to all first responder agencies (i.e., fire departments). The plans must include the following items:

- Designated facility coordinator.
- Alternative 24-hour emergency facility contact (with decision-making authority).
- Site plans, including locations of hazardous materials.
- Methods for determining the occurrence of a release.
- Notification procedures.
- Description and location of available emergency equipment.
- Site evacuation plans.

Under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), municipalities are required to develop operational plans for responding to hazardous materials incidents. Both the City of Everett and Snohomish County have developed Emergency Operations Plans:

City of Everett Emergency Operations Plan. Annex O, Appendix 1 of Everett's Emergency Plan identifies local responsibilities for hazardous material incident response and management to include preparation for and response to any incident involving hazardous substances or materials, which, when uncontrolled, can be harmful to persons or the environment of Everett. The plan also outlines vulnerability to hazardous materials and waste, hazardous materials incident response levels and action classification, personal protection of citizens and responses, training and exercises, facility notification and response planning.

Snohomish County Emergency Operations Plan (SCEOP). Appendix 1 to Annex O of the SCEOP pertains specifically to hazardous materials and covers notification and response, emergency planning, and notification procedures adopted by the County. Responsible agencies include Snohomish Department of Emergency Management, Snohomish County Sheriff's Office, Fire Districts/Department/Agencies, and the Local Emergency Planning Committee.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). Superfund is the nation's hazardous waste cleanup program.

The Toxic Substances Control Act, 40 CFR 763. This Act regulates the use and exposure to raw industrial chemicals (such as asbestos) that fall outside the jurisdiction of other environmental laws.

The Clean Water Act, 40 CFR 100-143. The Clean Water Act establishes health-based standards for protection of aquatic life and establishes acceptance methods and materials for sampling and testing waters.

Underground Storage Tanks, 40 CFR Part 280. This regulates underground storage tanks containing petroleum or substances defined as hazardous under CERCLA. It establishes requirements for leak detection, leak prevention, financial responsibility and corrective action for all underground tanks containing regulated substances.

### **State Regulations**

The Hazardous Waste Management Act, 70.95 RCW, and Dangerous Waste Regulations, Chapter 173-303 WAC. These laws implement the federal RCRA, and in some respects are more stringent than the federal regulations.

The Model Toxics Control Act (MTCA), 70.105 RCW, and regulations in Chapter 173-340 WAC. These laws establish the State's authority to direct or perform cleanup of hazardous waste sites. The laws apply to contaminated sites or to spills or releases of hazardous substances which result in contamination of the environment.

The Underground Storage Tank Regulations, Chapter 173-360. This directs the Department of Ecology to establish an underground storage tank program that at a minimum meets the requirements for delegation of the Federal Underground Storage Tank Program of RCRA. It includes notification, reporting and recordkeeping requirements; performance standards and operating and closure requirements; financial responsibility requirements; local programs; and registration and licensing requirements for underground storage tank service providers and service supervisors.

The Washington Industrial Safety and Health Act (WISHA), Chapter 49.17 RCW. WISHA implements the federal OSHA, and is in some respects more stringent than the federal regulations.

Washington State Water Pollution Control Law, 90.48 RCW. This law establishes the authority for the Department of Ecology to issue wastewater discharge permits and to pursue formal enforcement actions in order to protect surface and groundwater quality of the state.

Chapter 173-201A and 173-200 WAC. These establish Water Quality Standards for Surfacewaters and Groundwaters of the State, respectively.

NPDES and Stormwater Permits. Under RCW 90.48 and Chapter 173-200 WAC, the Department of Ecology implemented a National Pollutant Discharge Elimination System and State Waste Discharge Baseline General Permit for Stormwater Discharges Associated With Industrial Activities (Stormwater Permit). This general permit was issued on November 18,

1993, and is required for a variety of industrial categories which discharge stormwater from their facility to surfacewaters of the State.

Sediment Management Standards, WAC 173-204. Washington state sediment quality standards provide a regulatory and management goal for the quality of sediments throughout the state. The standards provide chemical concentration criteria, biological effects criteria, human health criteria, and other toxic, radioactive, biological or deleterious substances criteria which identify surface sediments that have no adverse effects, including no acute or chronic adverse effects on biological resources and no significant health risk to humans below which no adverse effects on biological resources are predicted.

Sediment source control standards are used as a basis for controlling the effects of point and nonpoint source discharges to sediments through the National Pollutant Discharge Elimination System (NPDES) federal permit program, and state water quality management permit programs. (i.e. When a discharge to surfacewater occurs, the impacts to sediment quality, as well as water quality, are addressed.)

The Waste Reduction Act, Chapter 70.95C RCW. The Waste Reduction Act requires companies that generate over 2,640 pounds of hazardous waste per year and companies that use hazardous substances to prepare hazardous substance and waste reduction plans.

Washington State Explosives Act, Chapter 70.74 RCW and Safety Standards for Possession and Handling of Explosives, Chapter 296-52 WAC. This regulates the manufacture, possession, storage, selling, transportation, and the use of explosives or blasting agents.

### **City of Everett**

Zoning Code. Section 39.090(B) of the Everett Zoning Code outlines the requirements for hazardous waste treatment and storage facilities. In industrial zones, on-site and off-site hazardous waste treatment and storage facilities are permitted, provided that these facilities meet the State siting criteria requirements of RCW 70.105.210.

Uniform Building Code and Uniform Fire Code. The City of Everett Building Department and Fire Department regulate hazardous materials through the Uniform Building Code and the Uniform Fire Code. The Uniform Building Code regulates the storage, containment, and type of buildings for hazardous materials storage. At time of application for building permits, the applicant must submit sheets showing the class of chemicals to be used on the site and the quantity of the chemicals. The Building Department and Fire Department inspect the site to ensure compliance with the permit. A certificate of occupancy is issued after the final inspection when the project has met all requirements of the construction permits.

Following issuance of the certificate of occupancy, the applicant can move into the building and apply for process permits from the Fire Department per Uniform Fire Code requirements. These permits must be issued prior to starting operation of the facility. The permits constitute permission to maintain, store, use or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities. Permits are required for activities such as aircraft repair hangars; asbestos removal; combustible materials storage; dry cleaning plants; flammable or combustible fluids; hazardous

materials storage, transportation, dispensing, use or handling; hazardous materials production; installation and removal of fuel tanks; magnesium working; malls; operating industrial baking or drying ovens; radioactive materials; repair garages; tire storage; and welding and cutting operations.

Some facilities are required to submit Hazardous Materials Inventories and Hazardous Materials Management Plans to the Fire Department for review and approval.

The Fire Department also conducts annual or biennial site inspections of facilities for compliance with permits and Uniform Fire Code requirements.

The Fire Department also issues permits for installation and removal of above and below ground fuel storage tanks.

Public Works Design and Construction Standards and Specifications Manual/Stormwater Management Manual. Compliance with this manual, including site management standards, is required for "High Risk Land Uses" including fueling sites, auto repair and maintenance shops, retail auto parts stores, car washes, new and used auto dealerships, and businesses that generate soapy or contaminated wash water. The purpose of the standards is to prevent the contamination of stormwater. As of February 1, 1997, these standards will be incorporated into the source control section of the new Stormwater Management Manual.

Industrial Pretreatment Ordinance. The City of Everett Public Works Department administers the wastewater pretreatment program within the city of Everett. The program implements provisions of state and federal laws, including the federal Clean Water Act (33 USC 1251 et seq.) and General Pretreatment Regulations (40 CFR Part 403).

The City's Pretreatment Ordinance generally requires that non-sanitary domestic discharge be separated from sanitary sewage discharge and be treated prior to discharge into the City's sewer system. The Ordinance provides for the issuance of wastewater discharge permits and discharge authorizations; requires use of all known, available, and reasonable methods of prevention, control, and treatment of wastewater; requires preparation of spill control plans; authorizes monitoring, compliance, and enforcement activities; and requires user reporting. The main objectives of the requirements is to eliminate or reduce the introduction of pollutants into the City's Water Pollution Control Facility (wastewater treatment plant) in order to protect the quality of the receiving waters, maintain the operations of the wastewater treatment plant, maintain the quality of biosolids, and protect the health of employees and the public.

Any development with non-domestic discharge; storage of chemicals or materials; floor drains other than required for restrooms or hot water heaters; or food preparation areas must contact the Public Works Industrial Pretreatment section to determine if a permit is required. Most industrial uses will require a permit. Examples of non-industrial uses that will require permits include coin operated laundries, car washes, filling stations, any business with vehicle washing areas, food preparation businesses, and warehouses with floor drains.

### **3.7.2.3 Recommended Mitigation Measures**

#### Construction Phase

1. Construction equipment and vehicles must be maintained so they do not leak fuels or lubricants. During construction, a staging area must be specified for all vehicle maintenance activities. The staging area must be located well away from all drainage courses. Where possible, all stormwater from related maintenance areas must be directed to the sanitary sewer, rather than the stormwater system. (SEPA Earth, Water and Environmental Health Policies)
2. During construction activities, all spills of fuel and hazardous materials must be contained and removed in such a manner as to prevent their entering the waters and soils of the State. Cleanup of spills must take precedence over other work on site. (SEPA Earth, Water and Environmental Health Policies)
3. During construction, all petroleum products, chemicals, and building materials that could contaminate runoff must be stored in a lined covered area. An impervious berm must be constructed around the perimeter of the storage area. The storage area must be located away from environmentally sensitive areas. (SEPA Earth, Water and Environmental Health Policies)
4. In order to expedite plan review, a hazardous materials inventory list shall be provided as a part of the submittal for building permits. The storage, handling and use of hazardous materials must be in compliance with Article 80 of the Uniform Fire Code, 1991 Edition. (SEPA Earth, Water and Environmental Health Policies)

#### Operation Phase

5. Dumpsters must be covered and maintained, so that stormwater runoff from refuse does not enter storm drains or infiltrate into soil. (SEPA Earth, Water and Environmental Health Policies)
6. On sites containing hazardous materials, procedures to use in case of spills must be posted. (SEPA Earth, Water and Environmental Health Policies)
7. All chemicals or products of a hazardous or toxic nature that may be used or stored on the site must be stored under cover and isolated from the storm drainage system. (SEPA Earth, Water and Environmental Health Policies)

### **3.7.2.4 Other Potential Mitigation Measures**

1. Implementation of chemical and hazardous waste reduction programs should be encouraged through modified manufacturing processes, improved management practices, and product substitution.

2. The following landscape practices could minimize contamination of surface and ground waters:
  - Properly maintain landscaped areas while minimizing amount of pesticides, herbicides, fertilizers, and other chemicals.
  - Application of fungicides, herbicides, insecticides, and fertilizers should be minimized or avoided January through April when soils are frequently saturated and storm events generate substantial runoff.
  - Use of phosphorous-containing fertilizers should not be permitted.

It would be the responsibility of the property owner/tenant to implement these landscape practices. The City could not enforce implementation of this mitigation measure. (Note: Section 3.4: Surfacewater, Plants and Animals recommends that native plants be used for landscaping purposes. The use of native plants will greatly reduce the need for pesticides, herbicides, fertilizers and other chemicals.)

3. The City, Snohomish County and Economic Development Council could direct economic development efforts towards attracting "clean" commercial, industrial, and manufacturing uses.
4. Businesses should provide appropriate training to new employees who will be handling hazardous materials as well as providing frequent refresher meetings to increase awareness and the importance of safety procedures.
5. Businesses should minimize overtime hours for employees who handle hazardous materials as part of their job duties.
6. Businesses should not schedule off-site hazardous materials shipment during major shift changes or during rush hour times.

## **3.8 PUBLIC SERVICES AND UTILITIES**

### **3.8.1 FIRE**

#### **3.8.1.1 Proposed Threshold**

None

#### **3.8.1.2 Mitigation Required by Existing Regulations**

##### **City of Everett**

The City of Everett has established standards for new construction to reduce potential fire damage. All development must comply with the requirements in effect at time of application for building permits. Uniform Fire Code (UFC) standards are revised every three years. City regulations may change more frequently. The nature of requirements for specific projects will vary depending upon the nature of the proposed construction, including building size, construction type, and proposed use. Existing regulations include:

- EMC 16.03 adopts portions of the Uniform Fire Code (UFC), with modifications, and includes requirements for fire vehicle access to sites. Adopted portions of the Uniform Fire Code provide standards for fire hydrant spacing, number and location; minimum main size; fire flow determination procedures; building and site identification (addressing) requirements; fire safety practices during construction; trash collection and storage; hazardous materials storage, standpipe requirements; etc.
- EMC 16.76 regulates automatic fire detection and fire suppression systems. This requires that sprinkler systems and fire alarm systems be provided with the type based on building use, size, and construction type.
- EMC 46.44 regulates fire lanes and access roadways. This requires developments to provide unobstructed access for fire department apparatus and other emergency equipment and personnel, and provides standards for such access.
- EMC 14.16 regulates the number and location of fire hydrants and standpipes and fire flow requirements. It requires that hydrants be available to all buildings and requires that adequate fire flow be provided as established in the "Guide for Determination of Required Fire Flow" published by the Insurance Service Office of the Municipal Survey Service, and the standards of the American Water Works Association.
- The Uniform Building Code (UBC), adopted in EMC 16.01, also includes requirements for fire safety, such as standpipe requirements.

### **3.8.1.3 Recommended Mitigation Measures**

1. Water main extensions will be required to serve specific sites. (See Section 3.8.6: Public Water)

### **3.8.1.4 Other Potential Mitigation Measures**

1. The City could increase fire prevention construction standards and specifications to reduce the risk of fires and the amount of damage. This could occur by adopting more stringent standards than those in the Uniform Building Code. Note: The City has already adopted more stringent sprinkler system requirements than those in the Uniform Building Code.
2. On-site fire services may be provided by large or specialized businesses, such as Paine Field and Boeing.

## **3.8.2 POLICE**

### **3.8.2.1 Proposed Threshold**

none

### **3.8.2.2 Mitigation Required by Existing Regulations**

none

### **3.8.2.3 Recommended Mitigation Measures**

1. All developments must provide adequate lighting of parking lots and others areas which have an increased risk for crime. Illumination should be a minimum of 3-4 foot candles. (The City of Everett Zoning Code requires that all parking lots with more than 10 spaces provide security lighting. Lighting must be shielded in a manner that does not disturb residential uses.) (SEPA Public Services and Land and Shoreline Use Policies)

### **3.8.2.4 Other Potential Mitigation Measures**

1. Businesses within the Subarea could voluntarily participate in crime watch programs. The Everett Police Department currently has very limited crime watch programs for business and commercial properties, and does not currently have the resources to provide these programs on a larger scale. An increase in the extent of crime watch programs could result in less crime, but would require additional police resources.
2. Large business complexes could be required to provide on-site security personnel.
3. Security should be considered in site and building design. The following measures will enhance site security:

- The more large non-opening business windows that are visible to parking areas, the safer the area is from assaults and thefts.
- Metal security bay doors should be secured with 3/8" case-hardened steel hasps or chain and padlocks with 1/2" case-hardened steel shackles.
- The perimeter doors should be solid core or metal with double cylinder dead-bolts installed. If doors open to the outside, or hinges are exposed, pin hinges should be provided.
- If store-front glass doors are part of the project, they should have locking case bolts top and bottom. The door should have a maximum security dead-bolt with 1-3/4' throw and 3/4" laminated steel.
- If offices will be handling cash, an actual money safe should be installed (for next day receipts only). Seismic detectors and passive infrared alarm sensors should also be installed in the room.
- A monitored fire and intrusion alarm system zoned for each entity should be provided. To provide protection in case of armed robbery, include remote panic buttons and/or foot trips if using a customer counter.

### **3.8.3 SCHOOLS**

#### **3.8.3.1 Proposed Threshold**

none

#### **3.8.3.2 Mitigation Required by Existing Regulations**

none

#### **3.8.3.3 Recommended Mitigation Measures**

1. If the B-1 zoned property at the corner of Glenwood and Merrill Creek Parkway develops with residential uses, the applicant must voluntarily mitigate impacts to the Mukilteo School District in a manner acceptable to the District. A written letter or agreement must be provided to the City by the School District or applicant prior to issuance of permits for the property. If an agreement is not provided, additional SEPA review will be required. (SEPA Public Services Policies).

#### **3.8.3.4 Other Potential Mitigation Measures**

none

## **3.8.4 PARKS AND RECREATION**

### **3.8.4.1 Proposed Threshold**

none

### **3.8.4.2 Mitigation Required by Existing Regulations**

1. If the B-1 zoned property at the corner of Glenwood and Merrill Creek Parkway develops with residential uses, the applicant must provide on-site recreation facilities and open space per the requirements of Section 15 of the Zoning Code.

### **3.8.4.3 Recommended Mitigation Measures**

1. When a trail system plan is adopted as part of the City's Comprehensive Plan, and when development is proposed on a parcel on or adjacent to a proposed trail per the adopted plan, there must be compliance with the trail system plan. (SEPA Land and Shoreline Use and Transportation Policies)

### **3.8.4.4 Other Potential Mitigation Measures**

1. The City could require the development of park facilities within both private and public developments, reducing the demand on public recreation sites.
2. The City could encourage the development of park facilities within both private and public developments.

## **3.8.5 COMMUNICATIONS**

### **3.8.5.1 Proposed Threshold**

Most communication facilities are exempt from SEPA review. This SEPA analysis covers all aboveground communication facilities provided that view analysis is completed in the Special Property Use permit process.

This analysis does not cover any structure that the FAA determines may have a significant adverse affect on navigable airspace around Paine Field Airport.

### 3.8.5.2 Mitigation Required by Existing Regulations

#### SEPA

Most communication facilities are exempt from SEPA review. Exemptions include: "All communication lines, including cable TV, but not including communication towers or relay stations." In addition, buildings necessary to serve communications systems, such as switching stations, are often too small<sup>9</sup> to require SEPA review.

A new State law which became effective June 6, 1996 (ESHB 2828) requires the Department of Ecology to create a categorical exemption from SEPA for the siting of personal wireless service facilities meeting specified conditions. These include:

- Microcells attached to existing structures that are not schools or residences.
- Antennas attached to existing structures that are not schools or residences, where the existing structure is in a commercial, industrial, manufacturing, forest or agricultural zone.
- Personal wireless service towers less than 60 feet in height located in commercial, industrial, manufacturing, forest, or agricultural zones.

The categorical exemption would not apply to a project in an environmentally sensitive area.

Microcells are defined as antennas that are either 4 feet in height with an area of not more than 580 square inches, or if a tubular antenna, not more than 4 inches in diameter and 6 feet in length.

#### City of Everett

Engineering and Public Services Requirements. The City of Everett issues permits to franchises to install underground utilities in the public right-of-way. These franchises must obtain Utility Permits from the Engineering and Public Services Department. Construction work must comply with all applicable standards in the City's Design and Construction Standards and Specifications, including Section 3-9, *Underground Utilities*.

Subdivision and Binding Site Plan Ordinances. The City's Subdivision and Binding Site Plan Ordinances (EMC Title 18) require that underground wiring be provided for all communication facilities. These requirements apply to all lots in the Subarea that have been created through these ordinances.

Zoning Code. The City's Zoning Code regulates "above ground utility and communication facilities." These uses are permitted in the C-2, M-1, M-2, and M-M zones through Review Process II (Planning Director determination with notice to property owners within 300 feet), and in the R-S zone through Review Process III (Hearing Examiner determination). Review Processes II and III require the applicant to show how the project meets general and specific criteria (Section 41.150.C and D of the Zoning Code).

The Zoning Code also includes standards for antennae:

- The height of antennae (including dish antennae) shall not exceed 5 feet above the maximum permitted building height above the base elevation of the principal building, and

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<sup>9</sup> less than 4,000 sf

shall not exceed the horizontal distance between the base of the antenna and the nearest property line.

- Any freestanding dish antenna shall be considered to be an accessory structure and shall be subject to the setback requirements pertaining thereto.

GMA Comprehensive Plan. The Capital Facilities and Utilities Element of the Everett Comprehensive Plan includes goals and implementation measures related to communication facility siting and construction. Goals include:

- To ensure the delivery of appropriate and adequate utilities to accommodate the demand associated with projected population growth in Everett over the next twenty years.
- To facilitate the provision of utilities while ensuring environmentally sensitive, safe and reliable service that is visually compatible with the surrounding land uses and results in reasonable economic costs.

Implementation measures include:

- When possible, the City shall minimize encroachment on view and solar access of existing residences by new utility facility construction or improvements.
- Compliance with Section 37, the Environmentally Sensitive Areas section, of the City Zoning Code.

#### **Federal Aviation Authority (FAA)**

FAA review is required for construction of projects exceeding certain thresholds that may affect navigable airspace. Federal Air Regulation Part 77 and FAA Advisory Circular AC 70/7460-21 (Proposed Construction or Alteration of Objects that may Affect the Navigable Airspace) require developers to notify FAA before construction begins. Notification provides the FAA the opportunity to:

- recognize potential aeronautical hazards to discourage, prevent or minimize the adverse effects to aviation;
- assure that pilots are alerted to airspace changes made as a result of the structure;
- recommend appropriate marking and lighting to make such objects visible to pilots; and
- depict obstructions on aeronautical charts for pilotage and safety.

Any facility greater than 200 feet in height above ground level must notify the FAA. In addition, notification is required for projects located within 20,000 feet of Paine Field, if the object exceeds a slope of 100:1 horizontally (100 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway. See EIS Figure 3.1-3, the Airport Airspace Plan, for the location of areas around Paine Field affected by Part 77.

#### **Other**

Telephone service is regulated by the Washington Utilities and Transportation Commission (WUTC) and the Federal Communication Commission (FCC).

Cable services are regulated by the Nation Cable Television Association guidelines and the FCC.

### **3.8.5.3 Recommended Mitigation Measures**

1. All communication lines must be installed underground. (SEPA Public Services and Land and Shoreline Use Policies)
2. The Special Property Use permit process for aboveground utilities must include analysis of impacts to views from the proposed facilities. In addition, Special Property Use permits should only be approved when the design of the aboveground communication facilities are compatible with nearby structures and/or screened from view. (SEPA Public Services and Land and Shoreline Use Policies)
3. Antennae and tower proposals and all proposals for structures to be added to the top of existing buildings: The FAA must be notified prior to issuance of a determination of consistency to determine if the structure will affect navigable airspace. All recommendations of the FAA must be complied with. (SEPA Land and Shoreline Use Policies)

### **3.8.5.4 Other Potential Mitigation Measures**

1. The City could modify the Zoning Code to exempt communication facilities from SPU requirements if a) the antennas or dishes are less than 10 feet high and/or b) the facilities are added to sites with existing antennas or communication facilities. This would encourage the co-location of facilities.

## **3.8.6 PUBLIC WATER SUPPLIES**

### **3.8.6.1 Proposed Threshold**

The analysis in the *Water System Plan* projected the overall future peak-hour demand for the area at 2.7 gpm/acre (approximately 4,000 gpa/day peak flow), and assumed fire flow requirements of approximately 3,500 gpm for commercial and industrial/manufacturing uses. Based upon the proposed design of the water system, any development using more than 2.7 gpm/acre has the potential to affect water pressure on other sites. Additional analysis will be required for development proposals with a peak hour demand above 2.7 gpm/acre and/or a fire flow requirement of 3,500 gpm or greater. The additional analysis may be as simple as calculations completed by the Public Works Department prior to a pre-application meeting on a specific development proposal. The additional analysis must determine how the proposal's water demand will affect the entire water supply and distribution system. Projects with no additional major improvements needed and no adverse cumulative impacts on the water supply and distribution system are covered by this analysis.

The 2.7 gpm/acre is an overall average peak hour demand assumed for planning in large areas such as the study area. However, there will undoubtedly be site-specific proposals with larger demand. For example, large irrigation systems can exceed 50 gpm/acre demand. Other land uses with demands much lower than 2.7 gpm/acre, such as warehouses, are assumed to occur

to offset the higher demand land uses, resulting in an overall area wide average of 2.7 gpm/acre.

The impacts of construction of the new water line to service development west of Japanese Gulch is not covered in this EIS. Additional analysis is required to review alternative routes for the line which will minimize the impacts of the proposal.

### **3.8.6.2 Mitigation Required by Existing Regulations**

All developments must comply with the regulations in effect at time of application for permits. Existing regulations include the following:

#### **City of Everett**

##### Design and Construction Standards and Specification Manual, Section 5, Water Distribution.

The City's Standards Manual requires that water main extensions be provided when a property does not front on a water main or when the existing water main is not adequate for the increased use proposed. The manual includes standards for construction plans; submittal of as-builts; easements; pipe size and materials; joints, fittings and valves; backflow prevention; trench excavation, looped mains, and construction requirements such as dewatering of trenches, etc.

Fire Flow Requirements. The Everett Municipal Code has established specific standards for new construction that include fire hydrant spacing, minimum main size, fire flow determination procedures, and looping of water mains. All development must comply with the requirements in effect at time of application for building permits. Current requirements include the following:

- Fire hydrants must be installed within 200 driving feet of any commercial structure.
- The minimum size for a water main serving a fire hydrant is 6 inches. City policy increases the code requirement to a minimum of 8 inches for dead-end water mains. In addition, looped water mains are required for any new development with a fire flow requirement of 2,500 gallons per minute or more.
- The Everett Municipal Code requires the Fire Marshal to use Insurance Service Office (ISO) guidelines to determine the fire flow requirement for new construction. The Engineering and Public Services Department then determines the ability of the existing distribution system to meet the fire flow requirements with 20 psi residual pressure. If the system cannot provide the required fire flow, the developer is required to revise the building construction (e.g., specify a sprinklered building or fire-resistant construction - See Section 3.8.1 for sprinkler requirements) and/or make necessary improvements to the water distribution system to meet the required fire flow.

Note: A developer's own insurance requirements or building sprinkler design criteria often require higher pressure for lower flows and may be more difficult to meet than ISO guidelines.

Water Connection Fees. Developers are required to pay special charges to the City for connection to the water system per Ordinance 1171-85, as amended. These charges are based on projected water usage and can be substantial. Applicants are encouraged to obtain a copy of the ordinance and determine estimated charges prior to building permit application. The actual charges are computed by the Engineering and Public Services Department per the ordinance in effect at the time of building permit issuance.

Water Pressure: Conditions Placed Using SEPA Substantive Authority. In most cases, fire flow determines the requirements for provision of water lines to a site, since fire flow requirements are generally greater than demand for processed water and domestic water. However, water pressure is a major factor in determining design of water distribution systems. The City uses a guideline of 40 - 80 psi under normal operating conditions in designing a water system to a site.

Design of improvements on individual sites may be affected by this standard. If a site is required to reduce pressure below 80 psi, the cost is generally minor. However, if 40 psi cannot be achieved on a site, it can be very expensive to upgrade a system. The latter is generally not expected to be a problem in the Subarea.

In the past, the City has used its SEPA substantive authority to require improvements that enable developments to fall within the 40 - 80 psi pressure range, such as requirements for installation of pressure reducing valves.

### **Mukilteo Water District**

Mukilteo Water District provides standard specifications and requirements for extensions by developers. The standard specifications are approved by DSHS and are on file with that office. Professional engineers must submit plans for any modifications or extension to the system for review and approval by the District's manager and engineer.

In their 1990 Water System Comprehensive Plan, the District describes the minimum requirements for distribution system development in the Mukilteo Water District:

- All pipelines should be constructed of materials meeting the requirements of the American Water Works Association.
- Designs should be approved by the District engineer.
- In general, all water mains should be looped where feasible so dead end lines are minimized.
- In industrial districts, the minimum size of a water main should be 8" in diameter when arranged with regular intersection points. Larger mains may be required for high flow requirements or for mains with long distances between intersecting points. The water mains should be sized so the normal maximum velocity does not exceed 8 feet per second.
- Fire hydrants should be installed at all intersections. Hydrant spacing in industrial districts should not exceed 330 feet.

- Valves should be installed at intersections. In industrial areas, valve spacing should not exceed 500 feet.

Mukilteo Water District also uses the "Guide for Determination of Fire Flow" published by the Insurance Services Office. For planning purposes, the District's standard for fire flows is 4,000 gpm for institutional, industrial and large commercial facilities and 3,000 gpm for small commercial facilities.

### **3.8.6.3 Recommended Mitigation Measures**

1. Looped water mains may be required for some sites to meet fire flow requirements and to protect water quality. Pressure reducing valves may be required when looped systems are constructed. (SEPA Public Services and Utilities Policies)
2. Developments must construct improvements necessary to provide a water pressure of 40-80 psi under normal operating conditions as required by Public Works. (SEPA Public Services and Utilities Policies)
3. Recycling of runoff water from bus or truck washing facilities is required. (SEPA Public Services and Utilities Policies)
4. New water system facilities must avoid environmentally sensitive areas to the maximum extent possible. Where water lines must be constructed through environmentally sensitive areas, best management practices must be followed. (See the mitigation measures discussed in Section 3.4) (SEPA Earth, Water, and Plant and Animal Policies)

**Table 3.8-2  
Water System Capital Improvements Needed for the Portion of the  
SW Everett/Paine Field Subarea Served by the City of Everett**

<b>Capital Improvement Needed</b>	<b>Cost</b>	<b>Responsibility for Funding</b>	<b>Properties That May Be Required to Fund all or a portion of the Improvement</b>	<b>Estimated Timing of Improvement</b>
Evergreen Way pump station expansion.	\$700,000	City		1996
Connection between City's water line and the Mukilteo Water District; Reservoir No.4	unknown	City		2000
20-inch main on Glenwood Avenue	\$352,000	City and/or Developer	Associated Sand and Gravel*	2008
16-inch parallel main on Seaway Boulevard	\$396,000	City and/or Developer	Lots 1, 2a and 2b of Seaway Center, Intermec Bhend Boeing Fluke*	2008
16-inch main on Hardeson road	\$299,000	City and/or Developer	Merrill Creek Centre Merrill Creek Assoc. Associated Sand and Gravel*	After year 2020
8-inch main on Kasch Park to 100th Street SE or connect into MWDs line at the NE corner of the Bomarc property.	\$68,000	Developer	Puget Sound Industrial Associates**	At time of development
16-inch main from Seaway Boulevard and 36th Ave. W across Japanese Gulch to 40th Ave. W and south on 40th to 76th Ave SW	\$456,000	Developer and/or City	Properties west of Japanese Gulch (approximately 294 NDA) and properties that front on 40th Ave. W *	At time of development or 2000, whichever comes first

\* Participation in funding by specific properties is based upon the assumption that one or more of these parcels will not have adequate fire flow without the improvement. If the improvement is not needed to meet fire flow requirements or other site specific development requirements, participation in funding would not be required. If a smaller improvement is needed to meet fire flow requirements, the City will share in the cost of constructing the improvement.

\*\* This improvement is needed to improve water quality by avoiding deadend lines.

5. Where utility connections are required through adjacent properties or connecting into residential areas, easements must be located in such a manner as to minimize the visual impact on the adjoining properties to the greatest extent feasible and must be revegetated in accordance with a landscaping plan approved by the Planning Department. Landscaping must be consistent with Engineering and Public Services requirements for protection and maintenance of the utility easement and facilities and should consist of native shrubs and groundcover. (SEPA Land and Shoreline Use, Plant and Animal and Public Services and Utilities Policies)
6. See Condition 4 on pages M-46 and M-47. (SEPA Land and Shoreline Use, Plant and Animal and Public Services and Utilities Policies)

### **3.8.6.4 Other Potential Mitigation Measures**

1. The City's Water System Plan includes measures to reduce consumption of water, including requiring the use of water efficient plants and landscape design, commercial and industrial water audits, and installation of efficient plumbing fixtures.

## **3.8.7 SEWER**

### **3.8.7.1 Proposed Threshold**

Capacity of the system is 1,700 gallons per gross acre per day, and 4,000 gallons per gross acre per day of instantaneous peak flow.

Some sites may have capacity in excess of the threshold available to serve potential users. If a proposal would exceed 1,700 gallons per gross acre per day and/or 4,000 gallons per gross acre per day of instantaneous peak flow, additional analysis will be required. The additional analysis may be as simple as calculations completed by the Public Works Department prior to a pre-application meeting on a specific development proposal. The additional analysis must determine how the proposal's sewer demand will affect the sewer system. Projects with no additional major improvements needed and no adverse cumulative impacts on the sewer system are covered by this analysis. Additional SEPA analysis will be required for projects that may require major improvements not identified in this DEIS or that may have adverse cumulative impacts on the sewer system.

This DEIS analysis does not cover the impacts of construction of a new sewer main across Japanese Gulch. Additional analysis is required to review alternative routes for the line which will minimize the impacts of the proposal, or alternative means of providing sewers to that area.

### 3.8.7.2 Mitigation Required by Existing Regulations

All development must comply with regulations regarding provision of sewer facilities. Current requirements include the following:

#### City of Everett

Public Works Design and Construction Standards and Specifications Manual: This Manual requires that sanitary sewer main extensions be provided when the properties do not front on a sewer main or when the existing sewer main is not adequate for the increased use proposed, and provides standards for construction of sewer lines. The standards cover all areas of construction including alignment tolerance, construction plans, easements, lift stations, manholes, sewer mains materials and trenching, slopes, and side sewers.

The minimum pipe size for sanitary sewer mains is eight (8) inches in diameter. The Utility Superintendent shall determine the pipe size required to serve the surrounding area. Slopes shall be 1% between manholes. Side sewers (which connect the building and the public main) for commercial and industrial buildings shall be a minimum of six (6) inches in diameter. Actual sewer main and side sewer size shall be dependent on the needs of the proposed use and any additional area/uses to be served by the facility.

A Public Works permit is required for all work within the public right-of-way and city utility easements for all sewer improvements. All sewer plans must be approved by the City Engineer. Performance and warranty guarantees are required for all improvements in the public right-of-way.

EMC 14.04 (Ordinance 1171-85) as Amended. This ordinance requires developers to pay special charges for connection to City sewer systems. The charges are based on projected water usage and can be substantial. Applicants are encouraged to obtain a copy of the ordinance and determine estimated charges prior to building permit application. The actual charges will be computed by the Public Works Department per the ordinance in effect at the time of building permit issuance.

EMC 14.08. This requires developments to connect to sewer lines and includes standards for items such as permits, right of entry, inspection and approval of work, repair and maintenance of sewer lines, and limitations on the type of matter that cannot be discharged to sewers, etc.

Industrial Pretreatment Ordinance #2034-95. In 1977 the U.S. Congress passed the Clean Water Act. Subsequently, in 1978, EPA issued the "Pre-Treatment Regulations for Existing and New Sources of Pollution." Additional rules for control of all domestic pollutants discharged into public treatment plants were published in 1981. In 1986, pre-treatment programs in Washington State were placed under the jurisdiction of the State Department of Ecology. Pre-treatment authority for cities the size of Everett was transferred to the cities. As a result, the City of Everett adopted the Pre-Treatment Regulations Ordinance in 1986, with subsequent updates in 1988 and 1995. Everett's industrial pre-treatment program is intended to improve the quality of water discharged from the WPCF, and reduce the amount of heavy metals in the WPCF's sludge. Businesses exceeding discharge limits for specific constituents must treat their sewage prior to discharging into the City's sewer system.

The City of Everett Public Works Department administers the industrial pretreatment program within the city of Everett and within the sewer service area of the Mukilteo Water District. The program implements provisions of state and federal laws, including the federal Clean Water Act (33 USC 1251 et seq.) and General Pretreatment Regulations (40 CFR Part 403). Industrial pretreatment regulations for businesses on Paine Field Airport (served by Olympus Terrace Sewer District) are administered by the State Department of Ecology.

The City's Pretreatment Ordinance #2034-95 generally requires that non-sanitary domestic discharge be separated from sanitary sewage discharge and be treated prior to discharge into the city's sewer system. The ordinance provides for the issuance of sewer discharge permits and discharge authorizations; requires use of all known, available, and reasonable methods of prevention, control, and treatment of sewage; requires preparation of spill control plans; authorizes monitoring, compliance, and enforcement activities; and requires user reporting. The main objectives of the requirements are to eliminate or reduce the introduction of pollutants into the city's Water Pollution Control Facility (sewage treatment plant) in order to protect the quality of the receiving waters, maintain the operations of the sewage treatment plant, maintain the quality of biosolids, and protect the health of employees and the public.

All developments should contact the City of Everett Industrial Pretreatment section to determine if a permit is required including any development with non-domestic discharge; storage of chemicals or materials; floor drains other than required for restrooms or hot water heaters; or food preparation areas<sup>10</sup>. Most industrial uses will require a permit. Examples of non-industrial uses that will require permits include coin operated laundries, car washes, filling stations, any business with vehicle washing areas, food preparation businesses, and warehouses with floor drains.

Currently there are a number of businesses in Southwest Everett and Paine Field which are required to pre-treat their sewage discharge. Among those are Amtech, Boeing, Community Transit, Fluke, Intermec, Achilles, Overall Laundry, Tramco and Sunquest Aviation.

If the future use of the site will result in the potential for accidental spills of chemicals, including oils or fuels, to the city's sanitary sewer, an Accidental Spill Prevention Plan will need to be prepared per the direction of the City of Everett's Industrial Pretreatment Program.

Conditions on past projects. Conditions on SEPA #15-92 for the Bhend property included: A portion of the sewage can go to the Powder Mill Gulch sewer and a portion to the Sound Avenue sewer. If a sewer connection is made to the manhole at the end of Sound Avenue, the sewer design and installation must take into consideration the limitation of the pump station serving Lot 19 of the Plat of Bridle Park. An easement must be provided for the sanitary sewer connection to Sound Avenue. The amount of sewage discharged into the Sound Ave. system must not exceed the capacity of the local system.

SEPA #9-92 for Puget Sound Industrial Associates (100th St. SW) required that a sewer force main to Casino Road be provided. In lieu of the construction of upgrades to Lift Station #28, the applicant was required to pay a fee of \$20,000 to the City. An alternative sewer service

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<sup>10</sup> Grease removal and treatment systems must be provided.

arrangement has since been approved by the Everett Public Works Department. Sewage from this and adjoining properties will enter the Mukilteo Water District system and flow to their lift station on 108th SW, where it will be pumped to Everett's system in Evergreen Way via a new, developer funded force main in 108th Street SW.

Mukilteo Water District. For development of individual parcels, the cost of installing sewer mains is the responsibility of the developer. Sewer mains within the Mukilteo Water District service area are required to meet the District's standards.

### **3.8.7.3 Recommended Mitigation Measures**

1. Individual developments may be responsible for funding all or a portion of sewer system capital improvements as shown in Table 3.8-4. (SEPA Public Services and Utilities Policies)

### **3.8.7.4 Other Potential Mitigation Measures**

1. Water conservation devices, such as water-saving toilets and water restrictors in showers and sinks, should be used to minimize water use and amount of water entering sanitary sewer system.
2. Businesses could be provided with incentives and disincentives, such as water prices, to reduce water use, reuse waste water, and reduce sanitary waste volumes.
3. Individual businesses could provide peaking tanks to delay sewage flows to hours when system flows are normally low.
4. Wet industries could be directed to locate where excess capacity exists.

## **3.8.8 SOLID WASTE**

### **3.8.8.1 Proposed Threshold**

none

### **3.8.8.2 Mitigation Required by Existing Regulations**

#### **City of Everett Zoning Code**

Placement and screening of refuse disposal areas must be provided per Section 39.080 of the Zoning Code. Garbage receptacles, dumpsters and recycle bins must be provided in all commercial, industrial and institutional developments. These shall not be located in required front yard setback areas or street side setback areas for corner lots. All garbage dumpsters and recycle bins must be screened from view from streets and adjacent properties by

**Table 3.8-4  
Sewer System Capital Improvements Needed for the Portion of the  
SW Everett/Paine Field Subarea Served by the City of Everett**

<b>Capital Improvement Needed</b>	<b>Cost</b>	<b>Responsibility for Funding</b>	<b>Properties That May Be Required to Fund all or a Portion of the Improvement</b>	<b>Estimated Timing of Improvement</b>
2,950 Feet on Hardeson Road between Overall Laundry and Merrill Creek Pkwy.	\$735,000	City and Developer	Merrill Creek Associates, Associated Sand and Gravel, Overall Laundry	Before 2020
2,100 Feet of Merrill Creek Parkway between Hardeson Road and Glenwood	\$525,000	City and Developer	Merrill Creek Associates, Associated Sand and Gravel, and Overall Laundry	Before 2020
450 Feet of Third Avenue	\$113,000	City or other		Before 2020
600 Feet of Broadway	\$150,000	City or other		Before 2020
2,200 Feet of Third Avenue	\$550,000	City or other		Before Buildout <sup>1</sup>
1,800 Feet of Broadway	\$450,000	City or other		Before Buildout <sup>1</sup>
Water Pollution Control Facility Expansion	Unknown	City or other		Circa 2002 <sup>2</sup>
Lift Station No. 1 Upgrade	Unknown	City or other		Before 2020

<sup>1</sup> Some or all of this project may be included in "before 2020".

<sup>2</sup> Under the current NPDES permit.

landscaping or structural enclosures. Garbage receptacles, dumpsters and recycle bin locations must be shown on the site plans submitted for building permits.

For specifics on design of refuse and recycling facilities, contact Rubatino Refuse Removal, Inc. at 259-0044.

### **3.8.8.3 Recommended Mitigation Measures**

none

### **3.8.8.4 Other Potential Mitigation Measures**