

TABLE OF CONTENTS

CHAPTER 3 SHORELINE LAND USE ELEMENT 1

I INTRODUCTION 1

A. COMMUNITY VISION 1

B. SHORELINE MANAGEMENT ACT 2

Figure 1: Everett’s Shoreline Area 4

Figure 2: Everett’s Shorelines of Statewide Significance 5

C. PURPOSE OF SHORELINE MASTER PROGRAM UPDATE 6

D. MASTER PROGRAM UPDATE PROCESS AND CITIZEN INVOLVEMENT 6

E. RELATIONSHIP TO THE COMPREHENSIVE PLAN 7

F. SHORELINE INVENTORY 8

G. DESCRIPTION OF EVERETT’S SHORELINE RESOURCES 8

 1. Snohomish River and Port Gardner Bay 8

Figure 3: Snohomish Estuary and Nearshore areas 10

Figure 4: Ecological Management Units 11

Figure 5: Snohomish River Federal Navigation channel 19

 2. Silver Lake 20

Figure 6: Silver Lake Vicinity Map 21

 3. Lake Stickney 25

 4. Lake Chaplain Reservoir, Woods Creek and the Sultan River 28

Figure 7: Lake Chaplain Reservoir Vicinity Map 28

Figure 8: Lake Chaplain Reservoir 30

Figure 9: Lake Chaplain Tract Wildlife Habitat Management Plan 31

II. GENERAL GOALS, OBJECTIVES, AND POLICIES 32

A. INTRODUCTION: MASTER PROGRAM PLAN ELEMENTS 32

B. SHORELINE USE ELEMENT 32

C. ECONOMIC DEVELOPMENT ELEMENT 33

D. CIRCULATION ELEMENT 34

E. CULTURAL RESOURCES ELEMENT 36

F. FLOOD HAZARD REDUCTION ELEMENT 37

G. PUBLIC ACCESS ELEMENT 39

H. RECREATIONAL ELEMENT 42

I. CONSERVATION ELEMENT 43

J. IMPLEMENTATION ELEMENT 47

K. SHORELINE RESTORATION ELEMENT 48

 1. Introduction 48

 2. Prioritization of Potential Restoration Sites/Actions 49

Table 1: Restoration Priorities 51

Figure 3: Potential Tidal Restoration Sites 52

Figure 4: Potential Stressor Removal 53

 3. Approach to Private Properties 54

 4. Smith Island, North Spencer Island, and Ferry Baker Island 55

 b. Private Property 59

Figure 5: North Smith Island and North Spencer Island 62

Figure 6: South Smith and Ferry Baker Islands 63

 5. Nearshore / Port Area 64

Figure 15: Port Area 72

Figure 16: Jetty Island 73

 6. Maulsby Mudflats 74

 7. Maulsby Marsh 74

 8. Everett Mainland - Jeld-Wen to South Side of Highway 2 74

Figure 17: Everett Mainland - Jeld-Wen to South Side of Highway 2 76

9.	Highway 2 to South End of Simpson Site	77
	<i>Figure 18: Highway 2 to Simpson - Urban Multi-Use Shoreline Environment.....</i>	<i>79</i>
10.	Marshlands	80
	<i>Table 2: Summary of Subarea Plan Costs by Phase [1].....</i>	<i>82-b</i>
	<i>Figure 19: Marshland Subarea Habitat Plan.....</i>	<i>82-c</i>
	<i>Figure 20: Tidally Influenced Wetland Based on Existing Topography.....</i>	<i>82-d</i>
	<i>Figure 21: Habitat Restoration / Recreation Phasing Plan</i>	<i>82-e</i>
11.	Other On-Going Restoration Projects in the Snohomish Estuary	82-f
12.	Appendix - Complete Text of Applicable Regulations	82-h
III.	SHORELINE ENVIRONMENT DESIGNATIONS AND MANAGEMENT POLICIES.....	88
A.	AUTHORITY	88
B.	CLASSIFICATION METHODOLOGY	88
C.	URBAN DEEP WATER PORT	91
1.	Purpose	91
2.	Classification Criteria	91
3.	Area Designated	91
4.	Management Policies.....	91
D.	URBAN MARITIME.....	92
1.	Purpose	92
2.	Classification Criteria	92
3.	Area Designated	92
4.	Management Policies.....	93
E.	URBAN MARITIME INTERIM	93
1.	Purpose	93
2.	Area Designated – Urban Maritime Interim	93
3.	Management Policies.....	93
4.	Contents of Subarea Plan.....	94
5.	Integrated document	95
F.	URBAN INDUSTRIAL	95
1.	Purpose	95
2.	Classification Criteria	95
3.	Area Designated	95
4.	Management Policies.....	96
G.	URBAN MIXED-USE INDUSTRIAL	96
1.	Purpose	96
2.	Classification Criteria	96
3.	Area Designated	96
4.	Management Policies.....	97
H.	URBAN MULTI-USE.....	98
1.	Purpose	98
2.	Classification Criteria	98
3.	Area Designated	98
4.	Management Policies.....	100
I.	SHORELINE RESIDENTIAL.....	101
1.	Purpose	101
2.	Classification Criteria	101
3.	Area Designated	101
4.	Management Policies.....	102
J.	URBAN CONSERVANCY – RECREATION	102
1.	Purpose	102
2.	Criteria for Designation	102
3.	Areas Designated.....	102
4.	Management Policies.....	103
K.	URBAN CONSERVANCY	104
1.	Purpose	104
2.	Criteria for Designation	104

EVERETT COMPREHENSIVE PLAN

3.	Areas Designated.....	105
4.	Management Policies.....	106
L.	MUNICIPAL – WATER QUALITY.....	108
1.	Purpose	108
3.	Area Designated	108
4.	Management Policies.....	108
M.	MUNICIPAL - WATERSHED	108
1.	Purpose	108
2.	Classification Criteria.....	108
3.	Areas Designated.....	83
4.	Management Policies.....	83
N.	AQUATIC	109
1.	Purpose	109
2.	Classification Criteria.....	109
3.	Area Designated	109
4.	Management Policies.....	110
O.	AQUATIC CONSERVANCY	111
1.	Purpose	111
2.	Classification Criteria.....	111
3.	Area Designated	111
4.	Management Policies.....	112
P.	URBAN CONSERVANCY AGRICULTURE	113
1.	Purpose	113
2.	Area Designated – Urban Conservancy Agriculture	113
3.	Management Policies.....	113
IV.	SHORELINE USE POLICIES AND REGULATIONS.....	114
A.	AGRICULTURAL PRACTICES	114
B.	AQUACULTURE.....	116
C.	BOATING FACILITIES	117
D.	COMMERCIAL DEVELOPMENT	119
E.	FOREST PRACTICES	120
F.	INDUSTRY.....	121
G.	IN-STREAM STRUCTURES.....	123
H.	LOG STORAGE AND RAFTING	124
I.	MINING	125
J.	MUNICIPAL WATERSHED UTILITIES	125
K.	PARKING	127
L.	RECREATIONAL DEVELOPMENT	127
M.	RESIDENTIAL DEVELOPMENT.....	128
N.	SIGNS, OUTDOOR ADVERTISING.....	129
O.	SOLID WASTE DISPOSAL AND COLLECTION	130
P.	TRANSPORTATION FACILITIES	130
Q.	UTILITIES	132
V.	SHORELINE MODIFICATION ACTIVITIES POLICIES AND REGULATIONS.....	133
A.	GENERAL SHORELINE MODIFICATION	133
B.	SHORELINE STABILIZATION AND FLOOD CONTROL STRUCTURES	134
C.	BREAKWATERS.....	136
D.	DREDGING AND DREDGE MATERIAL DISPOSAL	137
E.	JETTIES AND GROINS	139
F.	LANDFILL	140
G.	PIERS, DOCKS AND FLOATS	141
H.	WEIRS	142

CHAPTER 3 SHORELINE LAND USE ELEMENT

I Introduction

A. Community Vision

Growth and Change. As Everett grows, change is inevitable, and the city's shoreline areas will experience significant redevelopment. With change comes the opportunity for the community to influence the character of its shoreline areas. Everett is the job center for a rapidly growing county, and with an active port and a large number of underutilized waterfront properties, it is likely to witness a transformation of its shoreline areas. Everett will promote a balance between economic diversification, recreational opportunities, and environmental protection and restoration in its shoreline areas.

Public Access. Miles of shoreline that many residents have been able to see but not touch or walk beside will become more accessible. Shoreline areas that have been home to industrial uses will be redeveloped with a variety of new activities that allow more people to enjoy views and access to the water's edge. Other areas will continue to be used for water-dependent industries that do not allow direct public access. Population growth in the Everett area will increase the demand for water-oriented recreation. This demand will result in the City working with the Port of Everett, shoreline property owners, and other interested persons to provide additional public access improvements. Eventually, the City will complete a continuous and interconnected system of parks, trails, pedestrian walkways and bicycle paths in and between shoreline areas, including the Silver Lake area.

Shoreline Development. The urbanized parts of Everett's shoreline will experience development and redevelopment in areas where the community has invested and committed capital expenditures for transportation and utility infrastructure. Such development will diversify Everett's economic base with water-oriented businesses, recreational activities, open space areas, and a mix of urban uses. Nonwater-dependent uses, where allowed, will be of a high quality that enhances the built environment and protects the natural environment. Shoreline redevelopment will diversify the local economy and create greater opportunities for the public to enjoy the shoreline.

Environmental Protection. Although most of Everett's shoreline areas have been highly modified over a century of urbanization, there remain areas providing important shoreline ecological functions. Fish and wildlife species use Everett's shoreline areas for habitat, migration, feeding, and resting. Challenges related to the protection of endangered salmon species have made protection and enhancement of shoreline habitat more critical. Most of Everett's shoreline areas containing quality habitat will be protected and enhanced. In certain areas where development occurs, shoreline ecological functions must be improved as a condition of permit approval. Over time, there will be a net improvement in ecological functions along Everett's shorelines.

B. Shoreline Management Act

The Shoreline Management Act (RCW 90.58) was passed by the Washington State Legislature in 1971 and adopted by the public in a 1972 referendum. The Act states, “It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.”

The Act provides for the state and local governments to engage in a coordinated effort for the planning and administration of the Act. The cities and counties are the primary regulators, while the Washington State Department of Ecology provides technical assistance, approves local master programs, and assures that local government actions are consistent with the master programs and the Act.

The Act encourages full opportunity for citizen involvement in permit decisions as well as in preparing the plan itself, which is expected to contribute to the success of the Shoreline Management Program.

The Act makes each city and county affected by the Act responsible for:

- Administration of a shoreline permit system for proposed substantial development within shoreline areas.
- Development of an inventory of natural characteristics and land use patterns along designated water bodies.
- Preparation of a Master Program to best determine the future uses of local shorelines.

Scope of Shoreline Act. The requirements of the Shoreline Management Act apply to the following “shorelines of the state” and “shorelands”:

Shorelines of the State

- All marine waters.
- All streams and rivers from a point where the mean annual flow is twenty cubic feet per second or greater.
- All lakes, including reservoirs, which are twenty surface acres or larger in size.

Shorelands

- All lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark.
- Floodways and contiguous floodplain areas landward two hundred feet from such floodways.
- All wetlands and river deltas associated with the shorelines described above.
- Some or all of the 100-year floodplain. The City may determine the portion of a 100-year floodplain to be included as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom.

Figure 1 shows Everett’s Shoreline Areas (shorelines and shorelands).

Shorelines of State-wide Significance. The Shoreline Management Act designates certain shorelines of the State as "shorelines of state-wide significance." Shorelines thus designated are important to the entire state. Because these shorelines are major resources from which all people in the State derive benefit, Everett's Master Program must give preference to uses which favor public and long-range goals.

Accordingly, the Act established that in the development of Master Programs, preference shall be given to uses along "shorelines of state-wide significance" which meet principles listed below in the order of preference.

1. Recognize the state-wide interest over local interest.
2. Preserve the natural character of the shoreline
3. Result in long-term over short-term benefit.
4. Protect the resources and ecology of shorelines.
5. Increase public access to publicly owned areas of the shorelines.
6. Increase recreational opportunities for the public on the shorelines.
7. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

The Act requires more extensive coordination of planning efforts with State agencies, affected Tribes, and the public for shorelines of statewide significance.

The shorelines under the jurisdiction of the city which have been designated as having state-wide significance include:

1. That area of Port Gardner Bay lying seaward from the line of extreme low tide.
2. The Snohomish River and the associated estuary areas, including Steamboat Slough and Union Slough, and their shorelands.

Figure 2 shows Everett’s shorelines of statewide significance.

State Administrative Provisions. Washington State Administrative provisions that implement the Shoreline Management Act (RCW 90.58) include

- WAC 173-18 Shoreline Management Act – Streams and Rivers Constituting Shorelines of the State.
- WAC 173-20 Shoreline Management Act – Lakes Constituting Shorelines of the State.
- WAC 173-22 Adoption of Designations of Shorelands and Wetlands Associated with Shorelines of the State.
- WAC 173-26 State Master Program Approval/Amendment Procedures.
- WAC 173-27 Shoreline Management Permit and Enforcement Procedures.

These administrative guidelines/ requirements were reviewed and implemented in updating Everett’s Master Program.

Figure 1: Everett's Shoreline Area

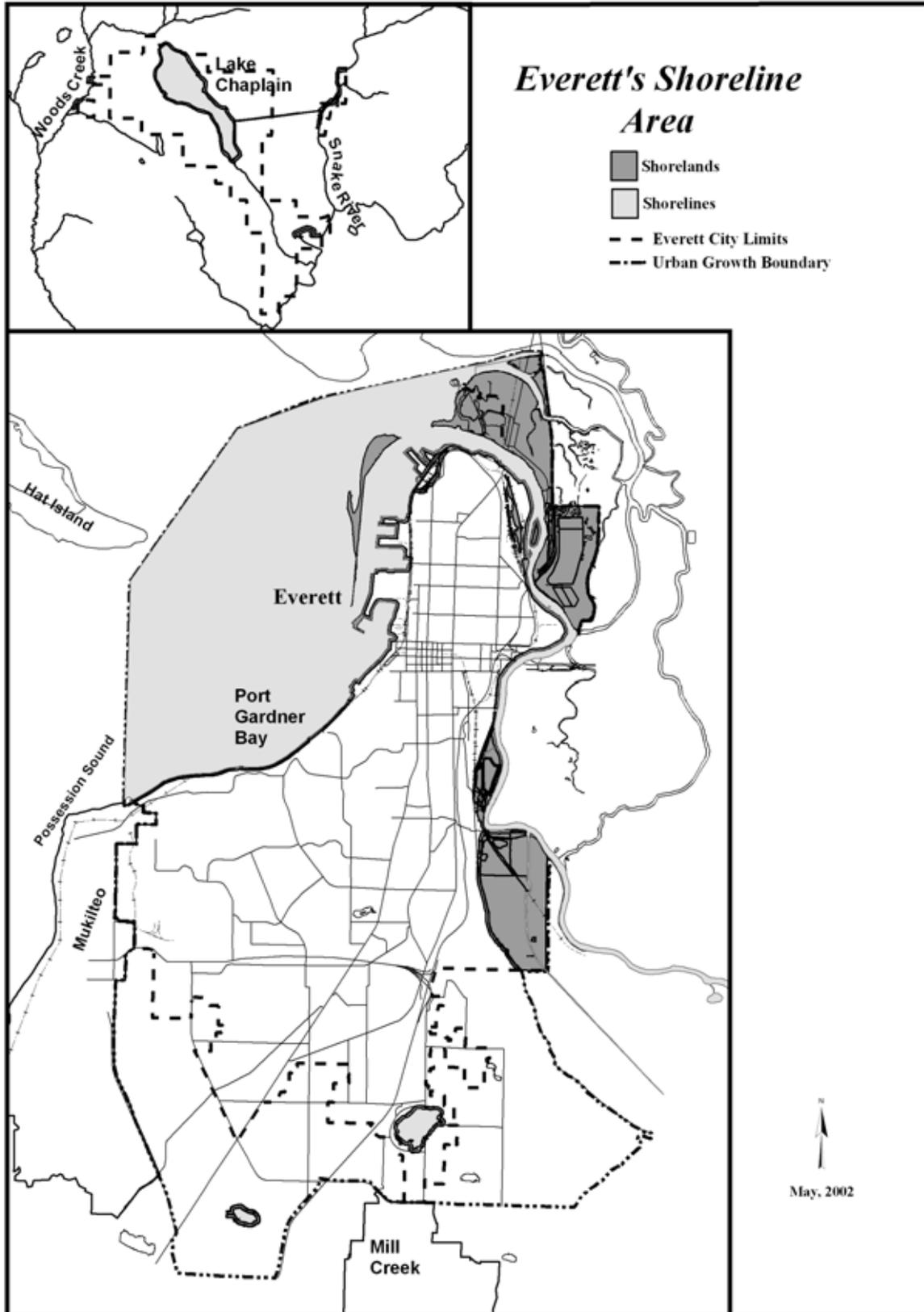
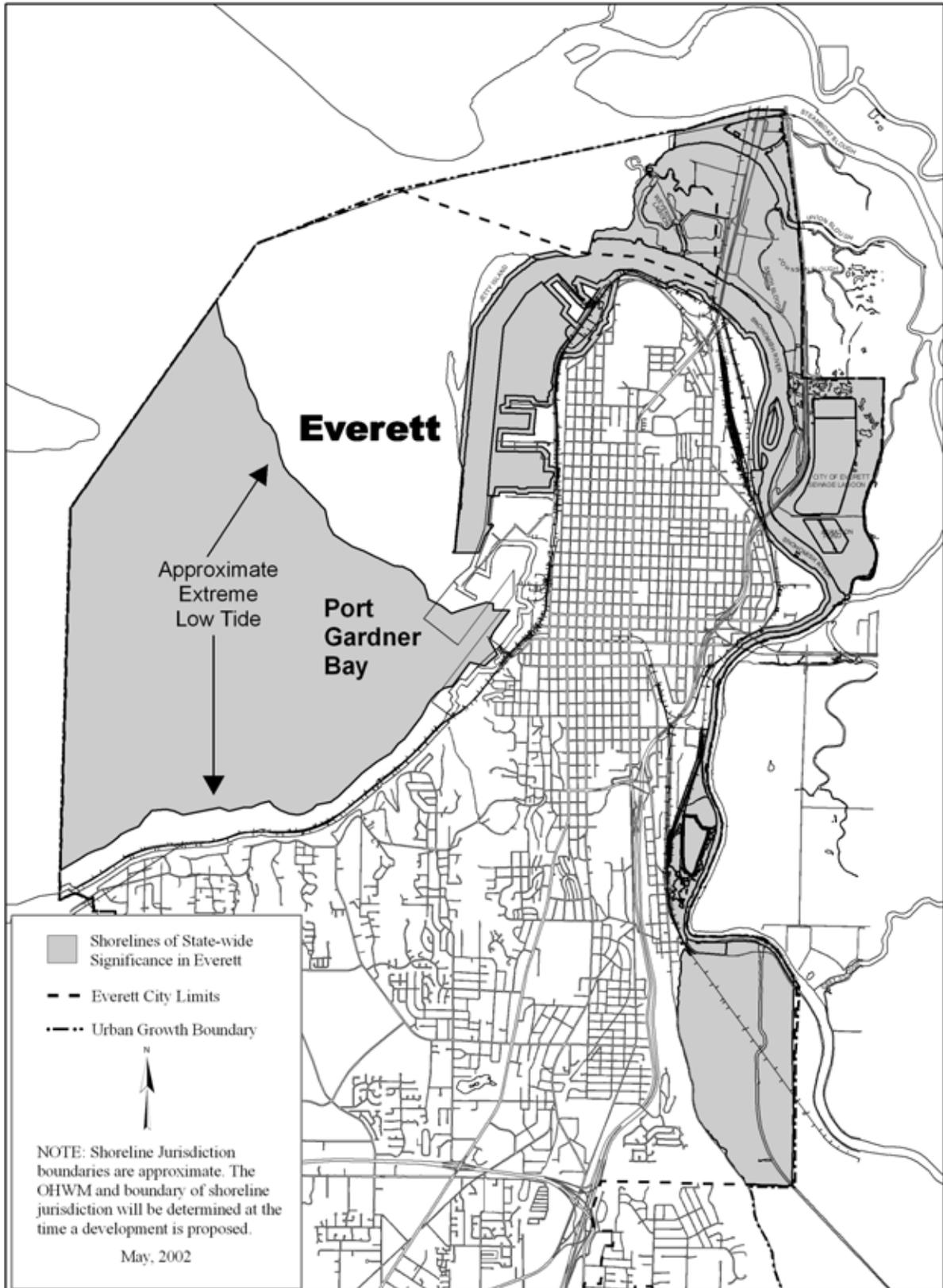


Figure 2: Everett's Shorelines of Statewide Significance



C. Purpose of Shoreline Master Program Update

Everett adopted its Shoreline Master Program (SMP) in 1976 and the Program has not been revised since then. The City chose to update its SMP for a number of important reasons, including:

- Many circumstances have changed in Everett and its shoreline areas since 1976.
- Shoreline areas annexed to Everett since 1976 were subject to Snohomish County's SMP, until the City updated its SMP to address those areas. This resulted in the City using two different SMPs adopted at different times with different policies and regulations. Annexed areas reviewed under Snohomish County's SMP include portions of the Silver Lake area, Smith and Spencer Islands, and the City's Lake Chaplain properties. The City needed to integrate its SMP with its Growth Management Act Comprehensive Plan. The SMP should apply to shorelines within Everett's Growth Management Planning Area, but outside the current City limits, including Lake Stickney
- "Critical area" or "environmentally sensitive area" issues were not adequately addressed in the 1976 SMP. Critical areas such as wetlands were thought of in a different light in 1976. The City has invested significant resources to classify wetland and aquatic functions in the Snohomish River estuary for the *Snohomish Estuary Wetland Integration Plan*. The knowledge gained from this study and other new watershed resource information has been incorporated in the updated SMP.
- Chinook salmon were listed as a threatened species under the Endangered Species Act by National Marine Fisheries Service. In addition, bull trout were listed by the U.S. Fish and Wildlife Service as a threatened species. There may be additional listings under the Endangered Species Act in the future.
- Certain shoreline issues, such as public access, needed to be addressed in more detail.
- New Department of Ecology guidelines for Shoreline Master Programs required major revisions to existing SMPs (WAC 173-26).

D. Master Program Update Process and Citizen Involvement

2001 Update to Shoreline Master Program.

In June of 1998, Mayor Ed Hansen formed a 24 member Shorelines Citizens Advisory Committee to guide formulation of the Shoreline Master Program update. The Committee met approximately two times per month over a two year period. After holding public workshops and hearings, the Committee delivered their recommendation to the Planning Commission on September 5, 2000. The Planning Commission and City Council also conducted public hearings and considered the recommendations of the Citizens Advisory Committee and those of property owners, resource agencies, and citizens in rendering their decision to adopt the updated SMP.

Public notice was accomplished through a WEB site, mailing of a brochure to interested citizens, displays in the City libraries, presentations to neighborhood groups and other organizations, newspaper articles and legal advertisements, and mailing notices of meetings to interested citizens and organizations.

Future Updates to the SMP - Documentation of Project Review Actions, Monitoring and Adaptive Management. The city’s master program, as required by Section 6 of the Act, shall be available for public inspection at the planning and community development department.

The City shall compile all permits and letters of exemption issued annually. In addition, the City shall compile all monitoring reports received annually. Subject to funding by the Department of Ecology or the State Legislature, every five years in conjunction with the Comprehensive Plan review and evaluation program required by RCW 36.70A.215, the City will compile new information regarding shoreline resources, review the development that occurred within shoreline areas during the previous five years, evaluate compliance of those developments with permit conditions, evaluate the cumulative impacts of the developments, and identify recommended changes to the SMP to address cumulative impacts.

The planning and community development department and planning commission shall review all administrative and management policies, regulations, plans and ordinances relative to lands in the city adjacent to the shorelines of the city and recommend appropriate action to the council so as to achieve a use policy on said land consistent with the policy of this chapter, the Shoreline Management Act of 1971, the guidelines, and the city’s master program.

The planning and community development department shall submit a report to the commission on the permit activity and recommended changes to the master program. The commission shall make a recommendation to the council, with council’s actions conveyed to the Department of Ecology. Public notice will be provided as required by state guidelines.

The planning and community development department may make application to the Department of Ecology or other appropriate agency for such funds as are deemed necessary for updating the master program.

When necessary to achieve implementation of the master program, the council may either alone or in concert with other governmental entities acquire land and easements within the city by purchase, lease or gift.

E. Relationship to the Comprehensive Plan

In 1994, the City adopted a Comprehensive Plan per the requirements of the Growth Management Act. The recommendations of the Shoreline Citizens Advisory Committee, Planning Commission, and City Council for the Shoreline Master Program update resulted in the need to revise the Comprehensive Plan to make the two documents consistent. Portions of the Comprehensive Plan were repealed upon adoption of this SMP. Additional revisions to the Comprehensive Plan will be reviewed and adopted after adoption of the Shoreline Master Program to ensure that the documents are consistent. The policies in this Shoreline Master Program (those provisions not designated as regulations) are adopted as an element of Everett’s Comprehensive Plan.

F. Shoreline Inventory

The shoreline inventory is an evolving process. Inventory information was compiled over the two years of meetings with the Citizens Advisory Committee, and continued through Planning Commission and City Council hearings. New information was continually generated in response to listings under the endangered species act and revisions to the State shoreline guidelines. For example, the Snohomish Estuary Wetland Integration Plan was updated to address listing of salmon and bull trout as endangered species. However, the update was not complete at the time the Citizens Advisory Committee delivered their recommendations to the Planning Commission. Information will continue to be compiled to ensure the use of “best available science” during project review. In addition, the City will continue to develop plans to implement the Master Program. For example, following adoption of the Shoreline Master Program, the City plans to develop a city-wide public access plan.

Information compiled includes, but is not limited to, a historic survey of Everett’s shorelines, existing land and transportation facilities, existing and potential public access, an economic assessment of waterfront land uses, and environmental resource information. The Snohomish Estuary Wetland Integration Plan (SEWIP) provides detailed information concerning fish habitat, other wildlife habitat and water quality attributes for substantial portions of Everett’s shoreline. The inventory information is available for review in the Planning and Community Development Department.

G. Description of Everett’s Shoreline Resources

This section summarizes some of the inventory information available for Everett’s shoreline resources. Additional inventory information and more detailed information is available from the City of Everett Planning and Community Development Department.

Detailed environmental inventory and analysis of the estuary, including the nearshore areas along Port Gardner Bay, was completed and presented in the Snohomish Estuary Wetland Integration Plan (1993) and the Salmon Update to the Snohomish Estuary Wetland Integration Plan (2000). Significantly less existing inventory information is available for Silver Lake, Lake Stickney and the City’s Lake Chaplain Reservoir properties.

1. Snohomish River and Port Gardner Bay¹

The Snohomish estuary is approximately 9 miles long and 3 to 4.5 miles broad at its widest point, encompassing six major islands within its 19.5 square miles. The estuary is at the mouth of the Snohomish River, which has the second largest Puget Sound watershed (1,780 square miles). The Snohomish River runs from Monroe, 23 miles upstream from the mouth of the river to the estuary at a gradient which averages 1 ft./mile. The lower portion of the Snohomish River basin, including the portion in Everett’s jurisdiction, is flood protected with a series of levees built and maintained by independent diking and drainage districts. Figure 3 shows the Snohomish estuary and nearshore area.

¹ The description of the Snohomish estuary is excerpted from the Snohomish Estuary Wetland Integration Plan Salmon Update (Pentec, 2000).

Ecological Management Units (EMUs).

The estuary has been divided into Ecological Management Units (EMUs) based on indicators of the degree of fresh water and marine influence.² The indicators include plants (vascular and algae) and invertebrates. Figure 4 shows the EMU boundaries. The EMUs cross jurisdictional limits with Snohomish County and Marysville. The following information regarding the EMUs is primarily taken from the Snohomish Estuary Wetland Integration Plan Salmon Overlay (Pentec Environmental).

EMU 1 - Fluvial Freshwater (Forested Riverine/Tidal). EMU 1 generally includes freshwater wetlands in the southern portion of the estuary. Salt sensitive plant species that distinguish this area include skunk cabbage, yellow marsh marigold, and red osier dogwood. Historically the area was a mosaic of tidal marshes, forested wetlands, and sloughs that were flooded daily. However, today the majority of wetlands within this unit are diked and in agricultural production. Two notable exceptions are Otter Island, which was never diked, and South Spencer Island, which has been partly restored to intertidal influence. Two dead-end sloughs, Deadman and Deadwater, are hydrologically connected to the River.

River and slough banks are typically steep in EMU 1 and consist mainly of sands with rock riprap and occasional pilings present on the Snohomish River. A narrow shoreline of sandy silts (mud) is present throughout most of the EMU.

EMU 1 is predominantly within unincorporated Snohomish County, with only the left bank of the Snohomish River and a portion of Smith Island in Everett's jurisdiction. Agriculture has been the predominant land use in this unit. Uses along the river within Everett's City limits include log yards, heavy equipment storage, and aggregate storage. Tidal restoration to improve salmon rearing habitat has occurred at a breached dike wetland site at South Spencer Island. Rotary Park and pedestrian paths occur at the south bend in the River.

EMU 2 – Fluvial Brackish Water (Emergent/Forested Transitional). EMU 2 generally includes the northern portion of the estuary immediately east and west of I-5. The area is comprised of brackish tidal marshes and diked palustrine marshes. Salt tolerant and moderately tolerant plant species in this area include Lyngby's sedge, Baltic rush, seaside arrowgrass and Pacific silverweed.

River and slough banks are moderately sloped and sandy with rock riprap and pilings dominating banks along much of the Snohomish River mainstem. A narrow shoreline of sandy silts (mud) is present throughout most of the EMU. Wider shoreline mudflats are found primarily along Steamboat and Ebey Sloughs at lower tides. Prior to diking this EMU was dominated by extensive tidal marshes with dendritic channel systems, interspersed with islands of forested wetlands.

Historical industrial uses in this unit include the closed Weyerhaeuser mills, the Burlington Northern Railroad delta yard in the southwest portion of the EMU, as well as the Buse Mill, log

² The concept of Ecological Management Units (EMUs) is adapted from Pentec (1992a). Pentec's EMUs were modified in *The Snohomish Estuary Wetland Integration Plan*, 1997 and further modified in the Salmon Update to the Plan. The EMUs described here are as defined in the Salmon Update.

Figure 3: Snohomish Estuary and Nearshore areas

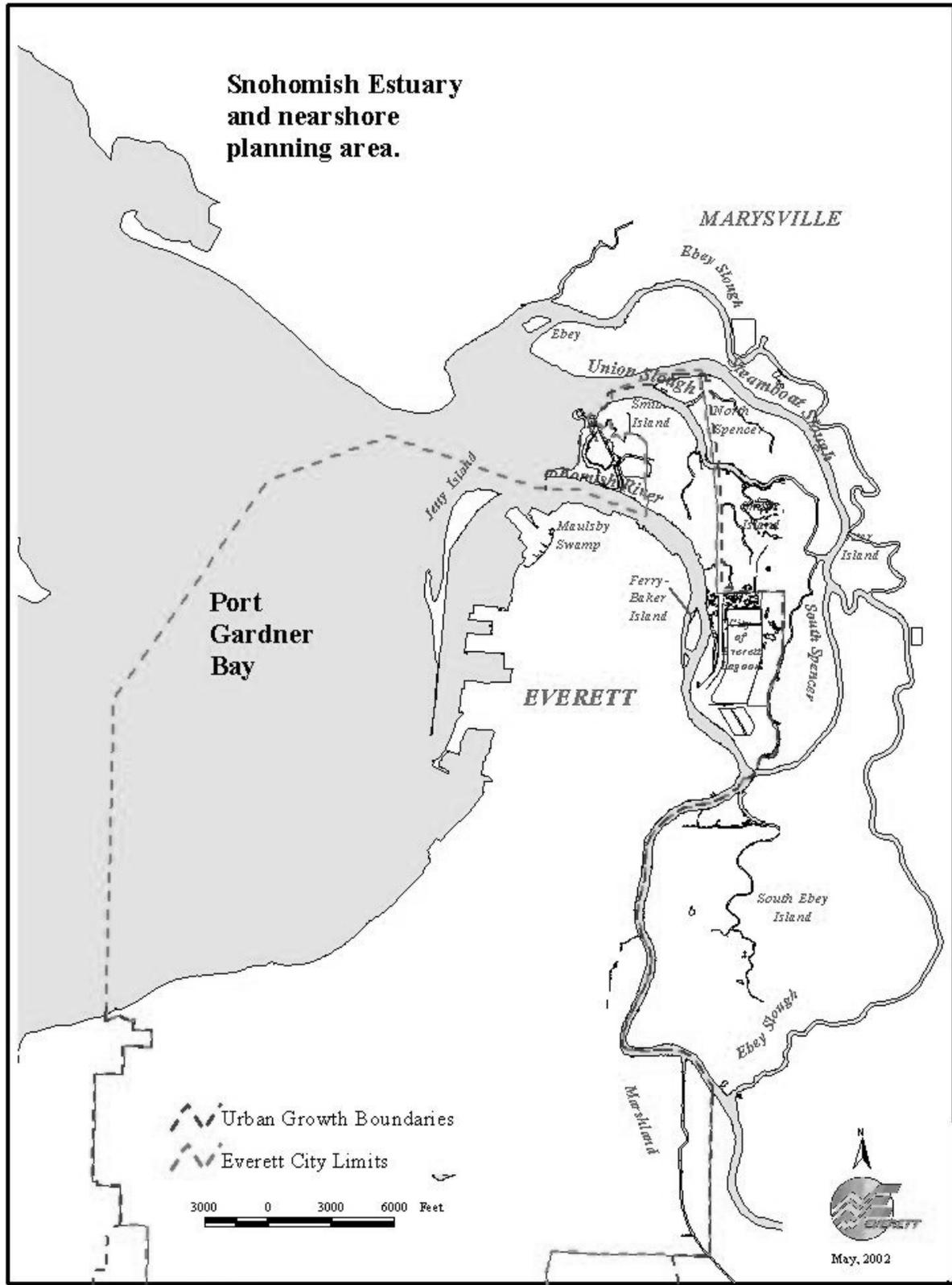
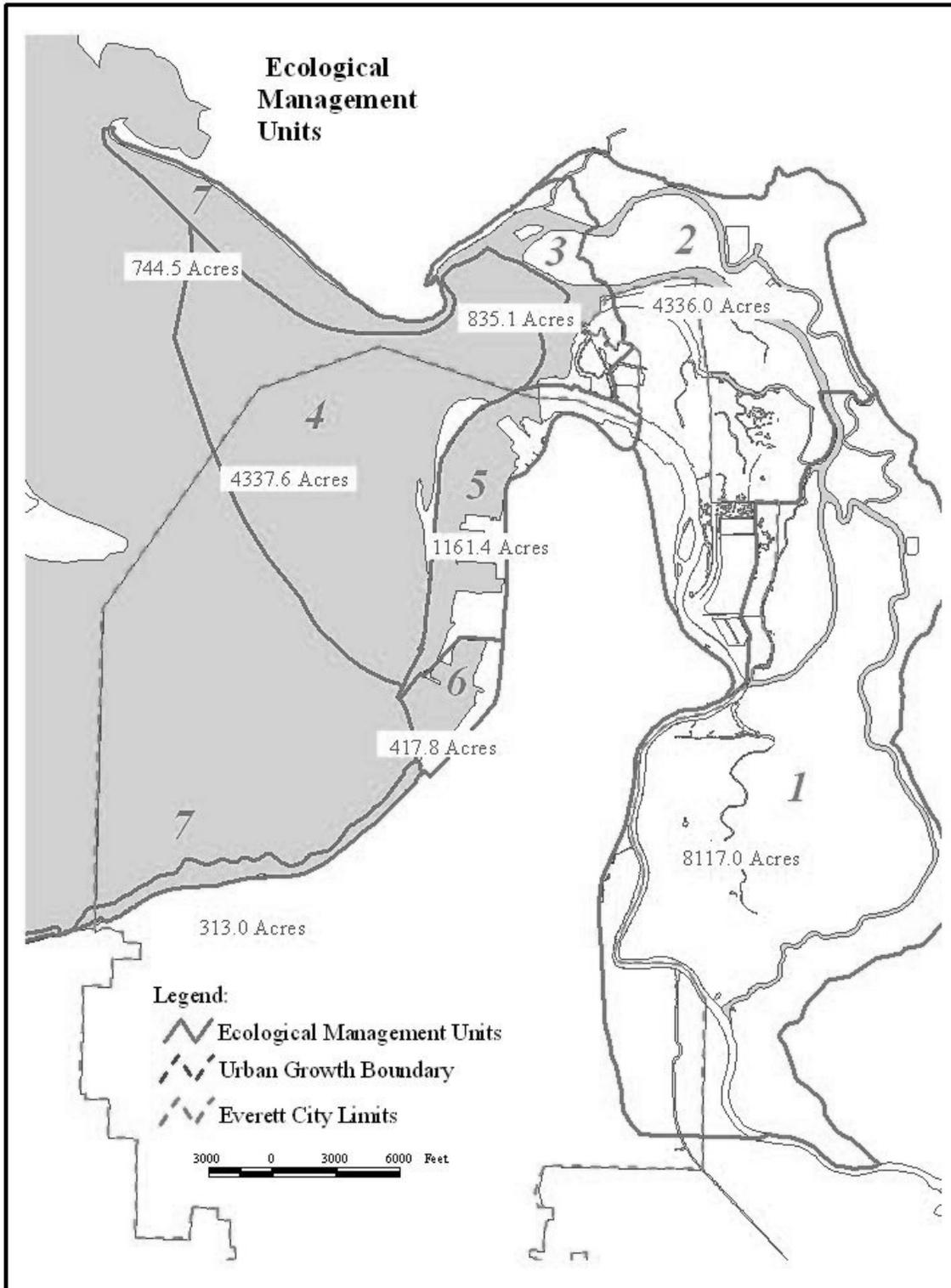


Figure 4: Ecological Management Units



yards, St. Regis building materials supplier (now BMC West), boat storage, sand and gravel barge facilities (Lone Star/Glacier), and wood chip facilities on Smith Island. The middle portion of the unit, including the Biringer Farm on North Spencer Island and the central portion of Smith Island are in agricultural use. Other uses include the City of Everett Water Pollution Control Facility and Treatment Ponds, and Langus Park on the southern portion of Smith Island.

This unit differs from EMU 1 in that the majority of the eastern islands located outside Everett's City limits (Mid-and North Ebey and Mid-Spender Islands) have broken dikes and are subject to tidal inundation. These islands have reverted to a condition more closely resembling the pre-development condition of the EMU. Additionally tidal restoration has occurred at the Marysville sewer treatment mitigation site.

EMU 3 – River and Slough Mouths (Estuarine Emergent Marsh). This EMU extends southwest along Quilceda Creek tidal wetlands toward Priest Point, and south from the mouth of Quilceda Creek across salt marsh and sandflats to the right bank of the Snohomish River west of SR 529. Aquatic habitat consists of a combination of brackish wetlands, saltmarsh, and low gradient mud and sand flats. While considerable mixing of river and marine water occurs in this area, the saltwater influence results in the presence of marine species such as eelgrass, brown and green algae, and eastern soft shell clam. Salt-tolerant plant species, including Lyngby's sedge, Baltic rush, seaside arrowgrass, and seaside plantain dominate the marsh vegetation

Relative to EMU 1 and 2, diking is limited in EMU 3 and confined to the west end of Smith Island. In contrast, the undiked portions of the unit at the mouths of Quilceda Creek and Ebey and Steamboat Sloughs are close to the natural historical condition of this part of the estuary. Log raft storage has been and continues to be the major industrial use in this unit. However, recent declines in timber harvest have resulted in substantial reductions in the intensity of log raft storage over the delta area in this EMU.

EMU 4 – Delta Sand Flats. This EMU encompasses the extensive sand and mudflats of the inner and outer Snohomish River delta and Jetty Island. Because the area is subject to the waves and currents of Puget Sound and salinities exceeding 30 parts per thousand, it is predominantly marine in character. Small brackish marshes and salt marshes are found on Jetty Island and extensive eelgrass beds are present west of the Island. Salinities are affected by freshwater flows from the estuary; however, Jetty Island channels the majority of this flow west of the Island and south into Port Gardner Bay. High river flows during winter months result in significant sediment accretion in this unit. The shorelines and shallow areas surrounding Jetty Island are highly productive, supporting many species of fish and invertebrates.

The creation of Jetty Island from dredge spoils and material has been the major impact upon this unit. Prior to the creation of Jetty Island, this area consisted of intertidal and subtidal sand and mudflats with meandering channels but lacked shoreline and island habitat. Deflection of approximately 50% of the Snohomish River flow and sediment down the Lower Snohomish Channel (EMU 5) likely has allowed expansion of eelgrass within EMU 4. A joint Corps of Engineers/Port of Everett project constructed a 2,500 foot long berm of dredged material on the west side of the island, greatly enhancing habitat for juvenile salmon, surf smelt and shorebirds.

EMU 5 - Lower Snohomish Channel. EMU 5 contains highly modified or artificially created habitats in the Snohomish River channel. This EMU includes the industrialized area of the Everett waterfront, extending from Preston Point southward to Naval Station Everett, and the east shore of Jetty Island. Prior to the construction of Jetty Island, this EMU resembled the extensive mud and sand flats that persist today in EMUs 3 and 4. Other emergent marshes similar to Maulsby swamp likely were present along the base of the bluff south toward the Naval base. Farther south, the littoral area was probably comprised of mixed sands, silt and mud. The mainstem Snohomish River likely meandered out over the delta, but certainly was shallower and wider than its present configuration.

Much of the Everett waterfront shoreline has been modified by hard structures, including rock riprap, pilings, concrete bulkheads, docks and adjacent roads, parking lots and industrial yards and buildings. This area has been extensively dredged and filled, primarily for timber related industries, since the inception of the City of Everett. Filling has occurred just south of Preston Point, at the 10th Street boat launch, the North and South marinas, and the Naval Base. It is estimated that this activity has reduced the area of historical intertidal mudflats by approximately 50% (Pentec, 1992). Extensive mudflats do persist waterward of Maulsby swamp and along the east side of Jetty Island, but have been extensively used for log raft storage.

EMU 6 – Everett Harbor (East Waterway).

The East Waterway was transformed into a deepwater port by dredging and filling in the early part of the last century and has provided shipping and processing facilities for timber, pulp and alumina. As a result, this EMU consists primarily of highly modified deepwater and some limited shallow subtidal and intertidal habitat. Littoral habitats largely are associated with fill, as nearly all mudflat areas have been eliminated by dredging, fill, riprap or bulkheads. This area is primarily marine in nature.

Prior to alteration, this area was probably comprised of beaches consisting of cobbles and mixed sands and silts similar to those that currently line the Mukilteo shoreline to the south.

EMU 7 – Port Gardner Nearshore, Tulalip Nearshore. This EMU includes intertidal beach habitat and subtidal areas to –30 feet MLLW. Mid- and upper-intertidal areas are comprised of cobble and gravel, while lower intertidal and subtidal areas are predominantly mixed sands and silts. The EMU stretches from the entrance to Tulalip Bay south to Priest Point and from the mouth of Pigeon Creek No. 1 southwest towards Mukilteo. This EMU is primarily marine, but is influenced by freshwater from the Snohomish River and local streams. Sediment flows from these creeks have created small to moderate sized deltas along the southern shoreline. The upper beach in the Everett portion is highly modified by railroad lines. The Tulalip shoreline is less affected by single family residential development and associated losses to riparian habitat from bulkheading, and substantial reaches of feeder bluffs remain in the Mission Beach.

Salmonids. The Snohomish River supports seven species of anadromous salmonids: chinook, coho, chum, pink, steelhead, cutthroat and Dolly Varden/bull trout. Chinook salmon and bull trout were listed as threatened with extinction under the Endangered Species Act in 1999. Coho salmon are listed as a candidate species for federal protection. All salmonid species spawn in freshwater upstream from the estuary. Adult use of the estuary is largely limited to migration

and physiological transition. Adults may return to fresh water during every month of the year, and spawning times vary by species and stock. There is considerable variation in length of residence by juveniles in estuaries by species, stock type, and life stage. Juvenile salmonids are dependent on the estuary for feeding, physiological transition, migration and refuge from predation or displacement as they migrate from freshwater to marine habitats.

Other Fish. In the Snohomish Estuary, the most abundant non-salmonid species include juvenile starry flounder (*Platichthys stellatus*), peamouth chub (*Mylocheilus caurinus*), the Pacific staghorn sculpin (*Leptocottus armatus*), and prickly sculpin (*Cottus asper*). Three spined sticklebacks (*Gasterosteus aculeatus*), shiner perch (*Cymatogaster aggregata*), juvenile smelts, and lampreys are also found in the study area. Less abundant species include candlefish (*Thaleichthys pacificus*), Pacific herring (*Clupea pallasii*), and pumpkinseed (*Lepomis gibbosus*).

In the more marine EMUs 6 and 7, in Port Gardner and Possession Sound, starry flounder and English sole (*Parophrys vetulus*) are common flatfish. Surf smelt (*Hypomesus pretiosus*) and sand lance (*Ammodytes hexapterus*) are both very important forage fish that are abundant in the shallow waters of EMUs 3, 4, 5, 6, and 7. Numerous other species, typically associated with estuarine habitats for at least part of their life history, are also found in Port Gardner. These species include: tadpole sculpin (*Enophrys bison*), striped seaperch (*Embiotoca lateralis*), Pacific tomcod, (*Microgadus proximus*), saddleback gunnel (*Pholis ornata*), sand sole (*Psettichthys melanostictus*), Pacific hake (*Merluccius productus*), walleye pollock (*Theragra chalcogramma*), copper rockfish (*Sebastes caurinus*), spiny dogfish (*Squalus acanthias*), snake prickleback (*Lumpenus sagitta*), and bay goby (*Lepidogobius lepidus*).

Invertebrates. Common invertebrate species present in EMUs 3, 4, 5, 6, and 7 include: snails (*Littorina* spp.), mussels (*Mytilus* cf. *edulis*), clams (*Macoma balthica*, *Macoma* spp., *Cryptomya* spp.), cockles (*Clinocardium* sp.), jingle shells (*Pododesmus macroschisma*), polychaetes (*Nereis* spp., *Notomastus* spp., *Nephtys* spp., *Glycera* spp.), barnacles (*Balanus glandula*), shore crabs (*Hemigrapsus* spp.), isopods (*Gnorimosphaeroma oregonensis*), ghost shrimp (*Callinassa* sp.), blue mud shrimp (*Upogebia pugettensis*), Dungeness crab (*Cancer magister*), and red crab (*Cancer productus*). Anemones (*Mertridium senile*) are present in EMUs 3, 5, 6, and 7. Of these invertebrate species, Dungeness crab is the most significant commercially and is considered a priority species because of the limited habitat available in both the Everett area and Puget Sound.

Other Wildlife. The Snohomish Estuary is important as wildlife habitat on several geographic scales. Estuary habitats function locally as a corridor/refuge within the lower Snohomish River watershed for small mammals, herpetiles, and invertebrates, and function regionally in the extended Snohomish River basin for medium and large mammals and birds. The estuary links urban and rural open space from the Puget Sound lowlands to the Cascade Crest. Estuary wetland habitats also function regionally, nationally and internationally as a stop-over and wintering area in the Pacific Flyway for migratory waterfowl, including ducks, geese, and swans; and neotropical migrants, such as certain passerines and raptors.

A variety of rare and uncommon species are present in addition to the great diversity of common species. During the field inventory process for SEWIP (City of Everett 1997), 63 species of birds, 15 species of mammals, and four species of herpetiles were observed in the estuary.

During a 1978 to 1980 US Fish and Wildlife study of the estuary, 116 species of migratory and resident birds were identified (Zeigler 1996). An example of the large numbers of individuals using the estuary is provided by a 1980 survey in which 17,524 ducks and geese were recorded in a single day.

Of the 62 “wetland associated” Priority Species listed by the state, approximately 40 occur in the estuary (Priority Habitat and Species Program [WDFW 1993]). The status of these species ranges from federally endangered or threatened to state monitored (surveillance of a given species).

Birds. The Snohomish Estuary is a staging and stop-over area for bird migration along the West Coast Flyway. Snohomish Estuary habitats are also important to Puget Sound and resident bird populations.

The lower estuary supports a variety of marine birds, waterbirds, waterfowl, and raptors. Observed species in EMUs 2, 3, and 4 include red-breasted mergansers, loons, goldeneyes, scoters, western grebes, cormorants, pigeon guillemots, brants, eagles, ospreys, peregrine falcons, merlins, gulls, and terns (Carroll and Pentec 1992). Most species are more common in the winter than in other seasons of the year. The SEWIP field team counted over 60 active cormorant nests near the mouth of Union Slough during the summer of 1994 (City of Everett 1997). Ospreys also nest on pilings, with about 15 nests located in the lower estuary (Meehan-Martin, pers. comm., 1996). Marbled murrelets use Port Gardner Bay and Possession Sound for foraging (Carroll, pers. comm., 1996).

Shorebirds use the estuary during both the spring and fall migrations, and some species are present nearly year-round. Spring migration is dominated by shorebirds, and fall migration by waterfowl and raptors. During spring migration the number of shorebirds passing through the estuary is greater than during the fall migration, but there are fewer species except on Jetty Island (Carroll 1992). Dunlin and western sandpipers are the most common species in the spring. Baird’s, sharp-tailed and pectoral sandpipers, and golden plovers, though uncommon, are sometimes observed during fall migration. Dowitchers, dunlin, black-bellied plovers, western sandpiper, and yellowlegs are common in both spring and fall (Meehan-Martin, pers. comm., 1996).

Because shorebirds feed on benthic invertebrates in fine sediment and mud, several mudflats within the study area are used heavily by shorebirds. These include: the Maulsby Mudflats, especially the area directly north of the 10th Street boat launch, which has less log rafting activity than the rest of the flats; the Jetty Island berm and west Jetty Island, where 18 species of shorebirds have been observed and over 8,700 individuals were reported on April 27, 1995 (Pentec 1996); South Spencer Island, where more than 50 western sandpipers have been observed at one time (Carroll pers. comm., 1996); and the mudflat area south of the sunken barges (breakwater) at the mouth of the estuary. The recent construction of Naval Station, Everett, has eliminated the Caspian and Artic tern colonies in the estuary and significantly reduced the number of Caspian terns present.

Other water birds common throughout the estuary are American bittern, sora (breeding season), wintering common snipe, Virginia rails and greater yellowlegs. Fourteen Virginia rails were observed at Spencer Island during the 1995 Christmas Bird Count.

A wide variety of waterfowl use the estuary including Northern shoveler ducks, American coots, ruddy ducks, northern pintail ducks, and several species that breed in the estuary, including Canada geese, mallard and gadwall ducks. The flooded agricultural pastures and fields in EMUs 1 and 2 provide significant overwintering habitat for thousands of dabbling ducks and several trumpeter swans. Great blue heron use the drier portions of agricultural fields when higher tides reduce hunting opportunities outside of the dikes (Meehan-Martin, pers. comm., 1996). A flock of snow geese and a rare emperor goose have been reported along the lower Snohomish Channel (Pentec 1996). Brant feed on eelgrass west of Jetty Island (100 to 290 individuals in January through March). Over 25 species of waterfowl have been observed on and just off shore of Jetty Island, including American wigeon (1,000 to 3,000 individuals in the October/November peak) which use the west shore of Jetty Island as a resting place at night (Carroll, pers. comm., 1996; Pentec 1996).

Raptor species are widely dispersed throughout the estuary habitats, including mudflats, emergent marshes, agricultural fields and forested swamps. Species that nest in the estuary include red-tail hawks, northern harriers, ospreys, Cooper's hawks, great horned owls, screech owls, and bald eagles. Bald eagles use the estuary because of the abundance of food available on the mudflats. Seven nesting pairs of bald eagles are confirmed in the estuary, and two additional pairs may be present (Carroll 1996; Carroll and Pentec, pers. comm., 1992). Eagles prey on gulls and probably on stranded fish and crabs in the estuary mudflat areas. Eagles use mudflats year round, with the highest concentration occurring during April through June (due to the presence of sub-adults).

Osprey have been observed in the brackish marsh areas of the estuary, including southern EMU 2 and northern EMU 1, but are more common in the marine areas, where they nest on pilings. Peregrine falcons are present most of the year in the lower estuary and prey on shorebirds, waterfowl, and gulls (Carroll 1996). Occasional turkey vultures, which are cliff nesters and come from upland forested areas, have been seen scavenging in the estuary (Meehan-Martin 1996).

Seasonally flooded agricultural fields attract northern harriers, red-tail hawks, peregrine falcons, rough-legged hawks, and merlin. The northern harriers, red-tail hawks, and rough-legged hawks primarily hunt small mammals, while peregrine falcons prey on shorebirds, waterfowl, and gulls. Merlins prey on smaller birds. The Cooper's hawk and sharp-shinned hawk find refuge in the hedgerows and forested areas in the estuary (Meehan-Martin 1996).

Warblers and passerines migrate through the estuary in spring and fall, traveling as far north as Alaska. In the estuary, they are attracted to riparian corridors, scrub/shrub, and forested habitats. Numerous warblers have been observed at Spencer and Smith islands in the remaining riparian vegetation along the public access paths. Marsh wrens are common, as are red-winged blackbirds. Uncommon species include the Harris' sparrow and a nesting pair of purple martins near the 10th Street boat launch.

Mammals. River otters, mink, muskrats, weasels, beavers, coyotes, raccoons, and deer are all common throughout the estuary. Larger mammals, such as cougar or bear, are rarely observed in the estuary. This reflects the loss of upland habitat, the loss of forested habitat within the estuary, and the loss of corridors connecting the estuary to upland habitat.

Jetty Island observations include coyote (which cross over from Smith Island on the mudflats at low tide), river otter, Townsend's voles, and rats. Marine mammals in the estuary include California and Steller sea lions and harbor seals (Carroll, J.R., pers.comm., 1996). In spring and summer, migratory or resident gray whales are typically seen on the estuary delta front. A March 1995 aerial survey resulted in a count of 689 California sea lions on the East Waterway log boom adjacent to the Navy pier (Lambourn, D., WDFW Marine Mammal Investigations, pers. comm., 1995). Gray whales are a common spring migrant along the outer reaches of the Snohomish delta and north into Port Susan. Gray whales feed on benthic invertebrates and remained in the SEWIP study area through at least July 2000 (Houghton, J., Pentec, pers. obs.).

Snohomish River Federal Navigation Channel. The Port of Everett operates an active deep water port facility served by a federal navigation channel which runs six miles upstream. See Figure 5. The channel is maintained by the US Army Corps of Engineers through sponsorship of the Port of Everett. Approximately 150,000 cubic yards of dredged materials are removed from the navigation channel on an average annual basis. In addition, the Port carries out its own dredging activities in waterways under its jurisdiction, including those waterfront areas along the east side of the navigation channel from 4th Street south to the end of the deep water terminal. In addition, smaller property owners have dredged to gain access to the navigation channel and operate water-dependent businesses. Maintenance dredging is also required for these activities.

Shallow Draft: BST Associates completed an Economic Assessment of Waterfront Land Uses in the City of Everett, which describes limitations to navigation based on channel depth and width and bridge height. The majority of the navigation channel is maintained at a depth of 8 feet. This limits boat traffic primarily to barges that can operate with the tides. Taking into account loaded draft and the vessels' fixed heights, only 31.8% of the commercial vessels operating in Washington State can transit the channel during the average low tide. During the average high tide, 90% of the commercial vessels can transit the channel.

The BST report concluded that there is a cumulative demand for approximately 75 acres of waterfront industrial land in the shallow draft area through 2020. They anticipated demand for 17 acres between 1999 and 2005, 18 acres between 2005 and 2010, 19 acres between 2010 and 2015, and 21 acres between 2015 and 2020. Most of the demand is expected to occur in manufacturing (small boat repair), wholesale trade (aggregate distribution) and construction. There are currently about 71 acres of vacant industrial zoned lands within 200 feet of the shoreline, and an additional 61 acres that are underutilized and could be redeveloped if the owners were willing.

In addition to the 75 acres needed for waterfront industrial uses, there is also strong demand for increased wet moorage space, as evidenced by the current waitlist at the Port of Everett's

Marina, which consistently stands at 530 (or more) boats. The demand for moorage for longer vessels is especially strong.

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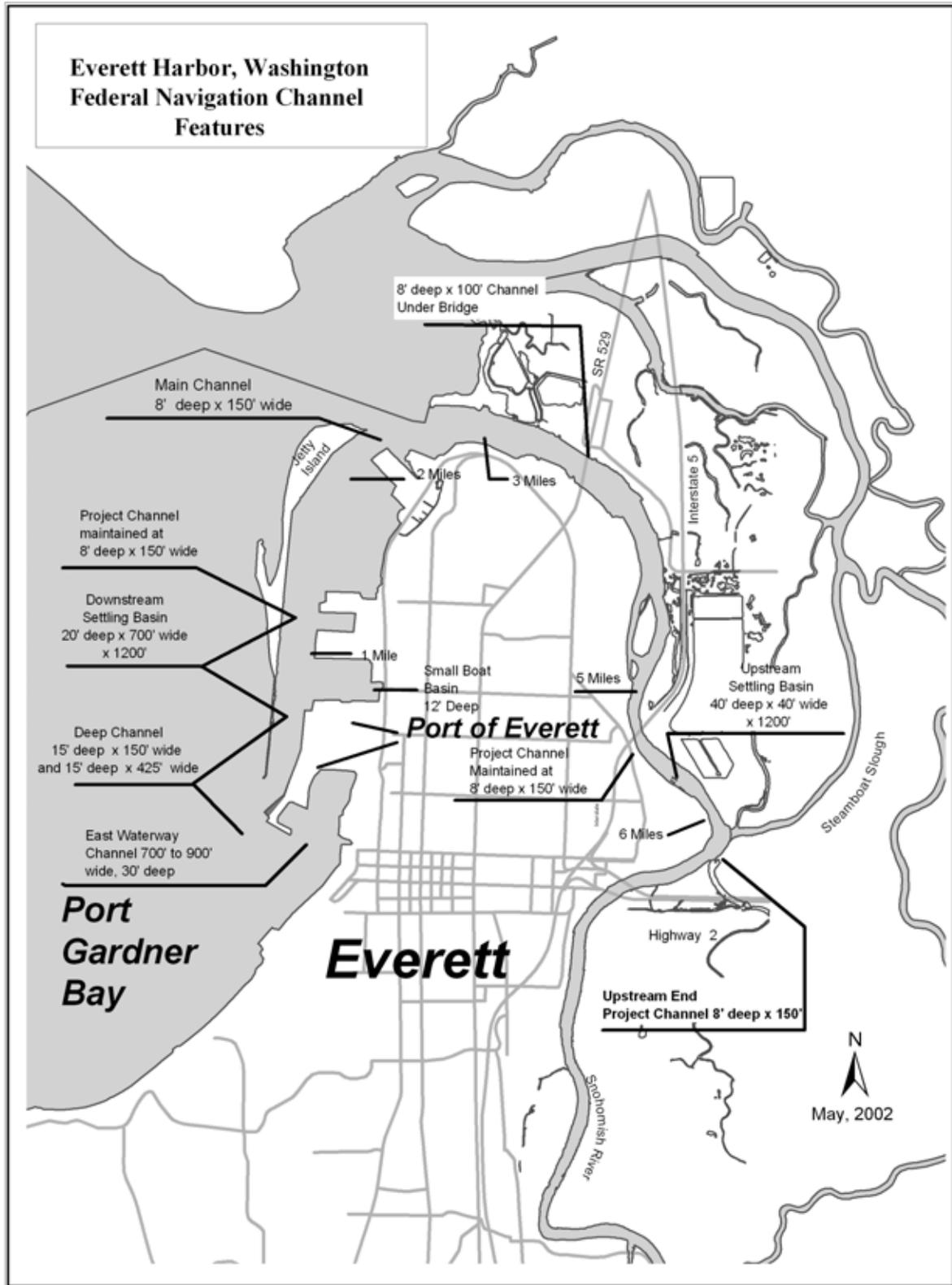
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East Waterway. The Corps of Engineers maintains the East Waterway to a depth of approximately 30 feet MLLW. This area is primarily used for the US Navy base and port-related deep water shipping operations. The east waterway is also used by Kimberly Clark for barging of wood chips and hog fuel. Along the marine terminal shipping berths in the East Waterway, the Port of Everett maintains water depths to approximately 40 feet MLLW. The Port of Everett facilities are utilized for a variety of uses, which include, but are not limited to, coastwise and international trade, vessel repair, fishing vessel resupply, and temporary lay-up. The US Navy maintains its berths and turning basins at approximately 55 feet MLLW. In addition to the commercial activity of the Port of Everett and the presence of the US Navy, the East Waterway is used for mooring barges, log rafts, and small commercial vessels.

Figure 5: Snohomish River Federal Navigation channel



2. Silver Lake

Silver Lake is an approximately 110 acre lake located in southeast Everett south of 112th St. SW and south/west of SR 527. A lily pond located east of SR 527 and north of 116th St. SE is connected to Silver Lake by a 30 inch culvert and was likely cut off from the lake by the initial construction of SR 527. Wetlands within shoreline jurisdiction are located at the south end of the lake and east of SR 527 south of Lake Heights Drive. Silver Lake is located within the North Creek watershed, which drains to the Sammamish River and Lake Washington. Surfacewater drains southeast to Ruggs Lake, then south to Thomas Lake and Penny Creek, a tributary to North Creek. Silver Lake Creek collects drainage from properties to the north of the lake and enters Silver Lake at an outfall at Thornton A. Sullivan Park near the City beach (and through an outfall at 19th Ave. SE). Silver Lake Outlet Creek exits the south end of the lake and drains towards Ruggs Lake. See Figure 6.

During the year, Silver Lake receives considerable recreational use including swimming, boating, fishing, and specialized events such as mini-hydro races. Most of the lake shoreline has been developed. Land uses along the shoreline include single family, multiple family, commercial (restaurant), SR 527, and public recreation, including Thornton A. Sullivan Park, Hauge Homestead Park, and public access between SR 527 and the shore.

Silver Lake has mean/maximum depths of 6.6m/15m. The lake bottom drops off relatively quickly beyond the shoreline, with bottom slopes of about 15 percent on the southeast side of the lake and about 25 percent on the north end of the lake. A relatively thick layer of peat-like soils has accumulated on the bottom of the lake since it was formed by glacial action approximately 10,000 years ago. These deposits may reach depths of 20-25 feet or more at the middle of the lake.³

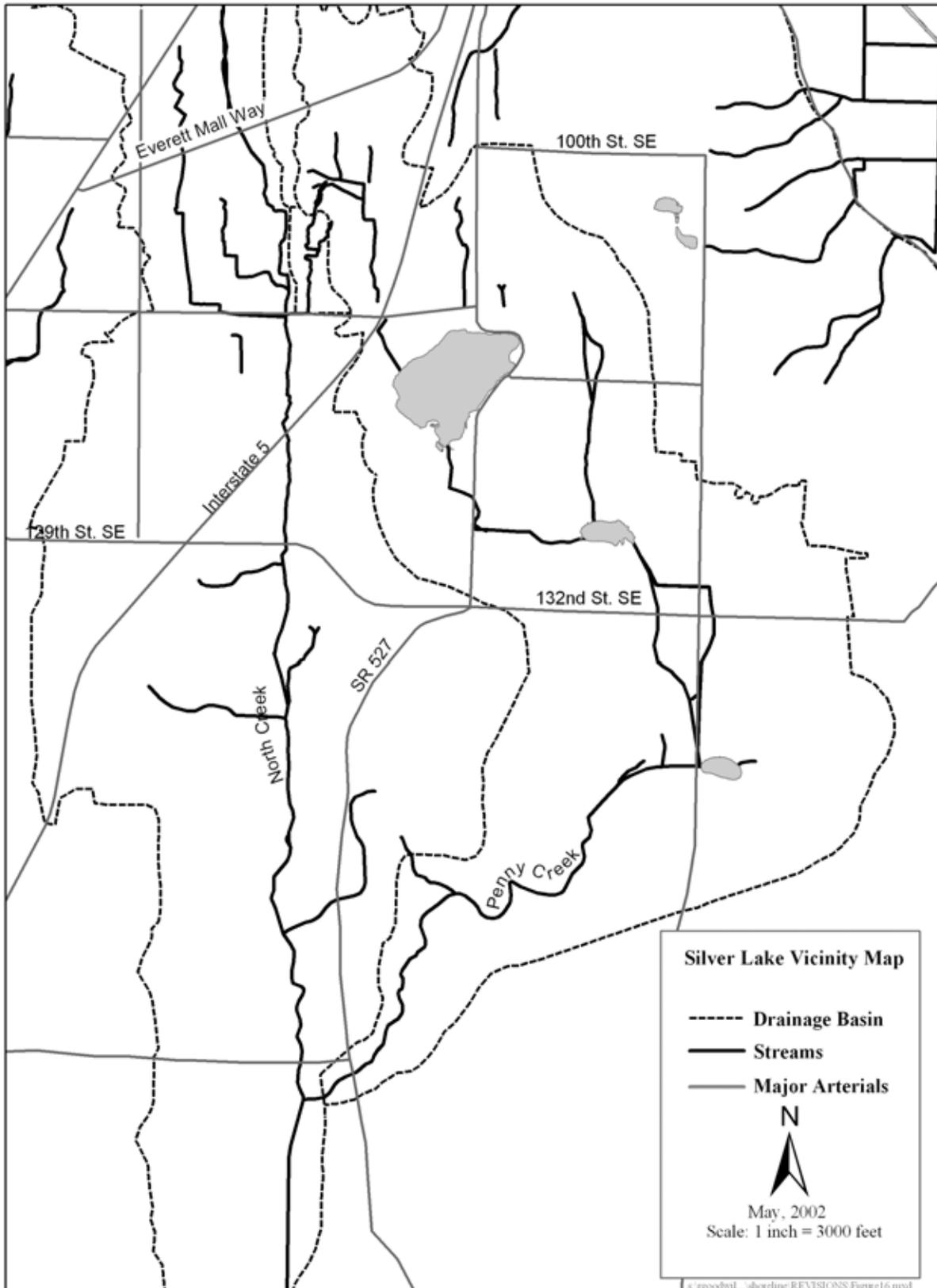
Water Quality.

Nutrients. All lakes naturally go through a process called eutrophication, and gradually fill in with plants and sediments in response to nutrient enrichment. Lakes can be oligotrophic (have low nutrient levels needed for basic plant and animal production), mesotrophic (inter-mediate in fertility, neither notably high nor notably low in its total productivity), or eutrophic (well-provided with the basic nutrients required for plant and animal production). Eutrophication can be greatly accelerated by human activity in the watershed of a lake. Due to the urban nature of its watershed, Silver Lake is at risk for premature eutrophication. A 1986-87 study by the University of Washington⁴ found that Silver Lake is currently oligotrophic, which means that nutrient concentrations (phosphorus) in the lake are low, that growth of algae is correspondingly low, and water clarity is high.

³Entranco. *SR 527/Silver Lake Final EIS*. August, 1995.

⁴Eugene B. Welch, Jory S. Oppenheimer, Richard R. Horner, Dimitris E. Spyridakis, University of Washington Department of Civil Engineering, Environmental Engineering and Science. *Silver Lake Water Quality, Nutrient Loading and Management*, Water Resources Series Technical Report No. 106, May, 1988.

Figure 6: Silver Lake Vicinity Map



The University of Washington Study concluded that thermal stratification in Silver Lake is very strong due to its relatively great depth-to-surface area and considerable protection from strong southwesterly winds. Such pronounced stability may account for the lake's rather high quality, considering the extent of development in its watershed. The temperature profile of the lake segregates into 3 layers. The surface layer is the epilimnion. Water temperatures are fairly constant in the epilimnion, which is the warmest of the three layers. Beneath the epilimnion is the metalimnion. Water temperatures cool rapidly with depth through the metalimnion. Beneath the metalimnion is the hypolimnion, which extends to the lake bottom. The hypolimnion is the coolest of the three layers. Similar to the epilimnion, water temperatures are fairly constant in the hypolimnion, with gradually decreasing water temperatures with depth. During stratification the cooler, denser hypolimnetic water does not mix with the warmer, less dense epilimnetic water. This reduces the supply of oxygen to the hypolimnion, causing the hypolimnion to become anoxic. During anoxic conditions, phosphorus is typically released from the lake sediments into the hypolimnion. Thermal stratification prevents the hypolimnion from contributing to algal growth in the epilimnion during the warmer summer recreational season.

Phosphorus is present at higher concentrations in the epilimnion, primarily during the spring months, apparently due to the input of stormwater runoff. The increased phosphorus at these times has resulted in algae blooms in the lake in February and March, before the lake stratifies, if the weather is sunny and warm. However, once the lake stratifies, phosphorus concentrations in the epilimnion decrease, chlorophyll *a* concentrations (a measure of the amount of algae in the water) decrease, and the water clarity increases.

Urban development which results in more impervious surface and increased stormwater runoff has the potential to greatly increase phosphorus inputs into the lake. The City has implemented several measures to limit the impacts of development on eutrophication of the lake including construction of a regional stormwater treatment facility, as well as more stringent runoff treatment standards⁵, nutrient source control measures⁶, and wetland protection/mitigation standards⁷ in the Silver Lake drainage basin. In addition, the City began monitoring of Silver Lake in 1989 following the University of Washington study. The City monitors lake stratification by measuring temperature and dissolved oxygen at 5 foot depth intervals. In addition, samples from specific depths are analyzed for chlorophyll *a* concentrations, total phosphorus and ortho-phosphate concentrations; and lake clarity is measured through use of a secchi disc⁸. The samples collected by the City generally show that Silver Lake continues to remain oligotrophic, though it hovers near the oligotrophic threshold. Monitoring of the lake's trophic status will continue, in order to detect any declines in the lake and to allow the implementation of additional measures should they be needed.

⁵ In the Silver Lake drainage basin development projects must provide runoff treatment by a wetpond in series with a biofiltration swale if infiltration is not an option.

⁶ Source control measures include best management practices for Vegetation Management/Integrated Pest Management, Maintenance of Storm drainage Facilities, and Street Sweeping of Impervious Areas.

⁷ The size of wetlands that may be altered is reduced, and compensatory mitigation is required even for very small wetland alterations.

⁸ Secchi depth is determined by lowering a 20 cm disk into the lake until the disk disappears. The disk is then raised slowly until it just becomes visible again. That depth is recorded as the secchi depth and is indicative of water clarity.

Fecal Coliforms. In 1998, the Department of Ecology recommended to the Environmental Protection Agency that Silver Lake be included in the 303(d) list of water bodies not complying with state water quality standards. This listing was due to fecal coliform concentrations in 1984 along the lake shore that exceeded state water quality standards. Fecal coliform bacteria are associated with the feces of warm-blooded animals and are measured as indicators of the potential presence of diseases such as cholera and hepatitis. Fecal coliform contamination could be caused by waterfowl, failing septic tanks, pet waste, and/or stormwater runoff. The City is now collecting and analyzing water samples for fecal coliforms. Over the past year, each of six shoreline locations have been sampled and analyzed for fecal coliforms twelve times. Sampling has occurred during summer and fall when biological activity is high and fecal coliform counts would also be expected to be high. Two of the sampling stations have average fecal coliform counts less than one-fifth of the state water quality standard (WQS) of 50 colonies per 100 milliliters with no exceedances of the WQS. Two other stations have average fecal coliform counts approximately one-half of the WQS, with one or two WQS exceedances. One sampling station has an average fecal coliform count approximately 30% above the WQS, with one WQS exceedance. The remaining sampling station has an average fecal coliform count approximately twice the WQS with 5 WQS exceedances. However, this sampling station is located at the lake outlet. The lake is very shallow, the water is typically turbid and there is an extensive wetland at the lake outlet. Under these conditions, fecal coliform concentrations would be expected to be high. Furthermore, bacteria naturally associated with vegetation, such as Klebsiella, could account for many of the fecal coliform colonies found in samples collected at the lake outlet. Finally, all of the sampling station have average fecal coliform counts well below the Snohomish County Health District threshold for closing public beaches (200 fecal coliform colonies per 100 milliliters).

Metals. The City also collects stormwater samples from two lake inlets. One of these inlets, 19th Avenue SE consistently has exceeded state water quality standards for copper, lead and zinc. Given these results, the City decided to begin sampling for metals at the in-lake station to determine if water within the lake also exceeds state water quality standards for copper, lead and zinc. Sampling showed that, except for lead, in-lake samples did not exceed state water quality standards. For lead, the laboratory detection limit exceeds the water quality standard. Since lead was below the detection limit for all but one sample, it was not possible to determine if the water samples exceeded the water quality standard for lead. Given the very low concentration of metals in the water samples, metals sampling was discontinued.

Sedimentation. Sedimentation is occurring at the City beach at Thorton A. Sullivan Park near the outlet of Silver Lake Creek. Parks Department representatives stated that approximately 2 feet of sedimentation has occurred since the early 1970's when the Parks Department did some clam shell dredging at the beach. The diving platform has been frequently relocated to deeper water, and the City may prohibit diving next year. The Parks Department is considering additional dredging to deepen the swimming area in the future.⁹ A draft Silver Lake Public Access Plan recommended that the outfall to Silver Lake be extended so that it discharges at a

⁹ Personal Communication with Daryl Bertholet, Parks Department.

greater depth. This would reduce sedimentation at the beach and could slightly reduce the potential for nuisance algae blooms.^{10 11}

Vegetation. Submersed, rooted aquatic macrophytes existing in a narrow ring along most of the shoreline in Silver Lake. Canada waterweed (*Elodea canadensis*) occurs most frequently. Other species include water lilies (*Nymphaea* sp.), *Brasenia* sp., *Potamogeton berchtoldii*, and *Vallisneria* sp.¹² The shallow cove near the outlet has the most aquatic vegetation, largely because it is shallow. Plants on the north, east and west sides of the lake are more restricted in area due to the smaller nearshore area that is shallow. The UW study concluded that plant growth is limited by low nutrient levels and the organic content of the nearshore sediment.

In 1991 Eurasian watermilfoil (*Myriophyllum spicatum* L.) was found in Silver Lake. The milfoil was concentrated in a narrow band around the lake at water depths between 4 – 10 feet. Milfoil was most likely introduced into Silver Lake as fragments carried on boats, trailers or fishing gear that entered the lake. The Eurasian watermilfoil is a notoriously aggressive competitor and is capable of crowding out native vegetation in a short period of time. It can form dense mats that can obstruct water flow, interfere with recreational and other water uses, and seriously affect existing aquatic habitat and organisms. The City developed a management plan for control of Silver Lake. After initial dredging operations to remove large concentrations of milfoil, for the last 3 or 4 years, milfoil has been handpicked by divers.

Much of the Silver Lake shoreline has been modified by development. The largest area of native vegetation remains in and adjacent to wetlands at the south end of the lake. Smaller patches of vegetation occur around the lake. The City beach area is devoid of vegetation in large areas. At the north end of the lake, single family homes have lawns planted to the shoreline. Most of the shoreline along the northeast and east side of the lake includes a narrow band of land between the lake and SR 527. These areas are thinly vegetated with some soft rush, sweet gale, and cottonwood trees. Emergent wetlands sparsely dotted along the shoreline extend out into the lake only a few feet. Much of the area is either gravel shoreline or exposed soils due to high pedestrian traffic, uncontrolled roadside parking, and the impacts of wind and wave erosion. Planned road and public access improvements for SR 527 will stabilize the shoreline and prevent further erosion by concentrating public access in hardened pedestrian corridors, anchoring logs and/or downed trees at the shoreline edge parallel to the shoreline, and planting of beach, wetlands and remaining areas between the trail and the lake with native plantings. Large portions of the north and east shore have been hardened with bulkheads.

Wildlife.

Priority/Endangered Species. There is no existing or historic use of Penny Creek or its tributaries by Chinook salmon or bull trout. However, seasonal use by bull trout during periods

¹⁰ Nuisance algae blooms generally occur during the warm time of the year. The water in the City Beach inlet during the warm time of the year is cooler than the lake water. If the City Beach inlet is extended to a depth below the thermocline, there would likely be less mixing of the hypolimnion and epilimnion. This would reduce the potential for nuisance algae blooms.

¹¹ It's unlikely that the sediment deposition at the City beach is related to the erosion on the northeast portion of the lake, since the particle size being eroded is sand and would drop out of the water close to shore. In addition, winds are predominantly from the SW so it is unlikely eroded sediments at the north and east portions of the lake would be carried to the west.

¹² Welch et.al. *Silver Lake Water Quality, Nutrient Loading and Management*

of cooler water temperatures is possible. Coho salmon use North and Penny Creeks. Coho are presently restricted to areas downstream of Thomas Lake in the Penny Creek system. However, a review of historic records indicate that coho salmon once used Penny Creek all the way up to Silver Lake, including the Silver Lake Outlet Creek.¹³ Silver Lake is used regularly by bald eagles as a forage site. The primary diet of the bald eagles at Silver Lake is likely water fowl and salmonids. No nests or roosts are known to occur in the area, though up to 3 eagles have been seen perching in trees around the lake.¹⁴

The Washington Department of Fish and Wildlife lists Silver Lake as priority habitat for providing important over winter food resources for diving ducks, herons and cormorants and loafing habitat for other waterfowl. Other waterfowl on the lake include, but are not limited to, mallards and Canada geese.

The USFWS reports that Northern red-legged frogs, a Candidate species for listing under the Endangered Species Act, are likely to inhabit the wetlands and lake environs in the Silver Lake area.¹⁵

Other Wildlife. Beavers living in Silver Lake build dams in the outlet creek that restrict flows from the lake and cause high lake water levels. The City has tried many methods to control the beavers and relocate them from the lake, but none have been entirely successful.

Silver Lake is managed by WDFW for trout. The Washington Department of Fish and Wildlife 2000 Hatchery Trout Stocking Plan included placement of 980 Triploid Rainbow trout in early April and 4,500 Rainbow trout in early May.¹⁶ Stunted yellow perch also are well established in Silver Lake. Kokanee salmon (a landlocked sockeye salmon) also occur in Silver Lake.¹⁷

The City does not know of any wildlife surveys that have occurred at Silver Lake. Other wildlife expected to occur in the area include raptors, songbirds, and small mammals.

3. Lake Stickney¹⁸

Lake Stickney is an approximately 25.7 acre¹⁹ lake located south of Everett's current City limits, but within Everett's Urban Growth Boundary. The lake has a volume of approximately 280 acre-feet and a maximum depth of 34 feet. Lake Stickney is located within the Swamp Creek watershed. Swamp Creek flows into the northwest portion of Lake Stickney and out the southwest portion. Large wetland areas associated with Swamp Creek are also in shoreline jurisdiction.

¹³ Entranco. *SR 527 Roadway Widening Project Biological Assessment for Chinook Salmon, Coho Salmon, and Bull Trout*. October 2000.

¹⁴ Entranco. *SR 527 Roadway Widening Project Biological Assessment for Bald Eagles*. October 2000.

¹⁵ SR 527/Silver Lake FEIS. August, 1995.

¹⁶ Washington Department of Fish and Wildlife Internet Site.

¹⁷ SR 527/Silver Lake Final EIS.

¹⁸ Information on Lake Stickney is primarily based on computer printouts of data compiled by Snohomish County.

¹⁹ WAC 173-20-640 states the acreage as 25.7 acres. Snohomish County's *Swamp Creek Watershed Management Plan Final Technical Supplement* states the acreage as 19 acres. The City has not attempted to locate the OHWM to determine the actual lake size.

Most of the Lake Stickney shoreline is developed with single family residential use, except that the wetlands associated with Swamp Creek are relatively undeveloped. In addition, a Department of Fish and Wildlife boat launch area is located on the northern portion of the lake.

Lake Stickney's watershed (drainage area) is approximately 3.56 square miles and is highly urbanized. The watershed extends north to Casino Road, and includes portions of Paine Field and Highway 99/Evergreen Way. As of 1995, Snohomish County estimated that 80% of the watershed was developed, with much of the development consisting of industrial, commercial, and high density residential uses. (Snohomish County)

As of 1994, there were 45 homes near the lake shore, and 29% of the homes had bulkheads or fill. 40% of the homes had some native vegetation near shore. Significant native vegetation still occurs in the Swamp Creek wetland areas to the northwest and west of the lake.

Aquatic Vegetation. The near shore aquatic areas that are less than 5 feet deep are primarily vegetated with dense stands of yellow water-lily (*Nuphar polysepalum*) with associated common bladderwort (*Utricularia vulgaris*), common elodea (*Elodea canadensis*), thin-leaf pondweed (*Potamogeton* sp.), stonewort/muskgrass (*Chara* sp.), water moss (*Fontinalis* sp.), tapegrass (*Vallisneria americana*), and false loosestrife (*Ludwigia palustris*). Several concentrations of dense fragrant water-lily (*Nymphaea odorata*) are interspersed on the west side of the lake.

Aquatic areas between 5 and 10 feet deep are moderately densely vegetated primarily by common elodea (*Elodea canadensis*), common bladderwort (*Utricularia vulgaris*), and coontail (*Ceratophyllum demersum*). Other plants in this area include thin-leaf pondweed (*Potamogeton* sp.), stonewort/muskgrass (*Chara* sp.), brittlewort (*Nitella* sp.), and water moss (*Fontinalis* sp.).

Purple loosestrife (*Lythrum salicaria*), a noxious invasive plant, is widespread around the lake shore.

Water Quality. Based upon limited water quality data provided by Snohomish County²⁰, it appears that Lake Stickney could be considered a mesotrophic lake.

The trophic status of lakes is typically determined based upon three water quality parameters: secchi disc depth, total phosphorus concentration and chlorophyll a concentration. All three of these water quality parameters can be indicative of the tendency of a lake to experience nuisance algae blooms during the summer. Nuisance algae blooms can interfere with recreation, decrease the aesthetic value of a lake, negatively impact fisheries resources and, in extreme cases, render the lake toxic to wildlife and humans.

There are three trophic classifications for lakes, oligotrophic, mesotrophic and eutrophic. Oligotrophic lakes have good water clarity (high secchi disc values), low phosphorus concentrations (normally the limiting nutrient for algae growth) and low concentrations of chlorophyll a (an indication of primary productivity or algae growth). Nuisance algae growth is rare in oligotrophic lakes due a low supply of nutrients. Lakes with a trophic status indicator

²⁰ Data was collected by Citizen Volunteers and Snohomish County Surface Water Management Staff between 1993 and 1999.

(TSI) below 40 are considered oligotrophic. (Lake Chaplain is an example of an oligotrophic lake.)

Eutrophic lakes have poor water quality, high total phosphorus concentration and high chlorophyll a concentrations. Eutrophic lakes have a TSI greater than 50. Nuisance algae growth is common due to an ample supply of nutrients either from sources within the watershed or from sources within the lake itself.

Mesotrophic lakes have water clarities and nutrient loadings that are between the oligotrophic and eutrophic classifications with a TSI between 40 and 50. Silver Lake has TSI near 40, so it is an example of a lake at the mesotrophic threshold.

Lake Stickney TSIs are in the mid to upper portion of the mesotrophic range (Secchi Disc – 45, Total phosphorus – 48, Chlorophyll a – 55). Based upon this data, Lake Stickney likely commonly experiences algae blooms in the summer.

The bottom of the lake was anoxic (little or no dissolved oxygen in the water) just a few meters below the surface in 1996, 1997 and 1998. When a lake becomes anoxic, phosphorus can be released from the sediment which can supply nutrients for algae growth in the surface water. The dissolved oxygen data, therefore, supports the idea that nuisance algae growth could be common during the summer in Lake Stickney.

From July 1990 to October 1991, Snohomish County monitored water quality in Swamp Creek at the Lake Stickney outlet at Jefferson Way as part of a monitoring program for the urban portions of Snohomish County. The Swamp Creek Watershed Management Plan Final Technical Supplement January, 1994 stated, “Samples were collected monthly, except when the sites were dry in the summer. The samples were analyzed for fecal coliform bacteria, turbidity, alkalinity, conductivity, ammonia, nitrate-nitrite (NO₂NO₃), total Kjeldahl nitrogen (TKN), total phosphorus (TP), soluble reactive phosphate (SRP), oil and grease, total petroleum hydrocarbons (TPH), total suspended solids (TSS), hardness, and total organic carbon. Field measurements were made for dissolved oxygen, temperature, and pH. In addition, samples were analyzed every two months for the following metals: arsenic, antimony, aluminum, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, and zinc.” The results were compared to the criteria for State Class AA surface waters.

The samples at the Lake Stickney outlet exceeded the State Class AA criteria for fecal coliform. The geometric mean was 58 colonies/100ml versus the standard of 50 colonies/100ml. The mean dry season temperature never exceeded 16 C, the criteria for Class AA waters. Mean values of dissolved oxygen met the Class AA criteria of at least 9.5 mg/l during the wet season. However, the mean standard during the dry season was 8.2, falling below the Class AA criteria.

No problems were found with excess nutrients as indicated by nitrogen or phosphorus levels, turbidity and suspended solids, oil and grease, or total petroleum hydrocarbons.

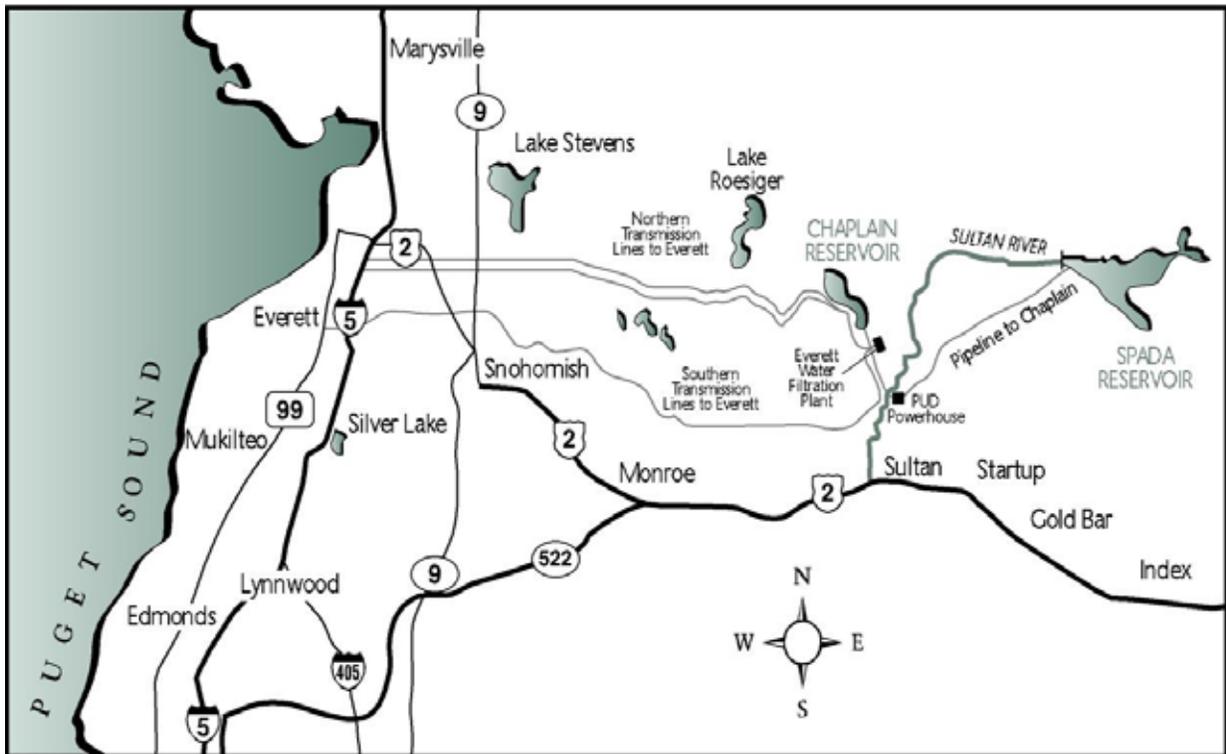
Six samples were taken for metals at the outlet from Lake Stickney. One of the samples violated state standard for copper, one violated the state standard for mercury, and four samples violated

the state standard for lead. None of the six samples violated state standards for zinc or aluminum.

4. Lake Chaplain Reservoir, Woods Creek and the Sultan River

The City of Everett and Snohomish County PUD are co-licensees under the Federal Energy Regulatory Commission (FERC) for the construction and operation of the Henry M. Jackson Hydroelectric Project on the Sultan River. The project supplies the water for Everett’s water utility, and Spada Lake Reservoir, which was built as part of the project, is the main water reservoir for the City of Everett. Spada Lake Reservoir is located approximately 7 miles east of Lake Chaplain Reservoir. It is about 1,870 acres and holds about 50 billion gallons of water. See Figure 7. Spada Lake Reservoir is not in Everett City limits and is regulated under Snohomish County’s Shoreline Master Program.

Figure 7: Lake Chaplain Reservoir Vicinity Map



Lake Chaplain Reservoir. Lake Chaplain Reservoir is located approximately 6 miles north of Sultan, Washington. It is an approximately 441 acre reservoir and holds about 4.5 billion gallons of water. The surrounding tract and watershed property are owned by the City of Everett and are within Everett City limits.

Lake Chaplain Reservoir was formed by construction of two dams in a side valley near the Sultan River. A concrete diversion dam constructed in the Sultan River originally diverted water to the Reservoir. However, since construction of the Jackson Hydropower project and raising of Spada Lake Reservoir, water is routed from Spada Reservoir to the Jackson powerhouse. Then part of the water is routed back to Portal 2 (west end of tunnel 1), where the water is split. Part

of it goes into Lake Chaplain Reservoir where it is held for treatment. The rest goes back through tunnel 1 to the diversion dam where it is released into the Sultan River for fish flows. The City's water filtration plant is located at the south end of the Lake Chaplain Reservoir.

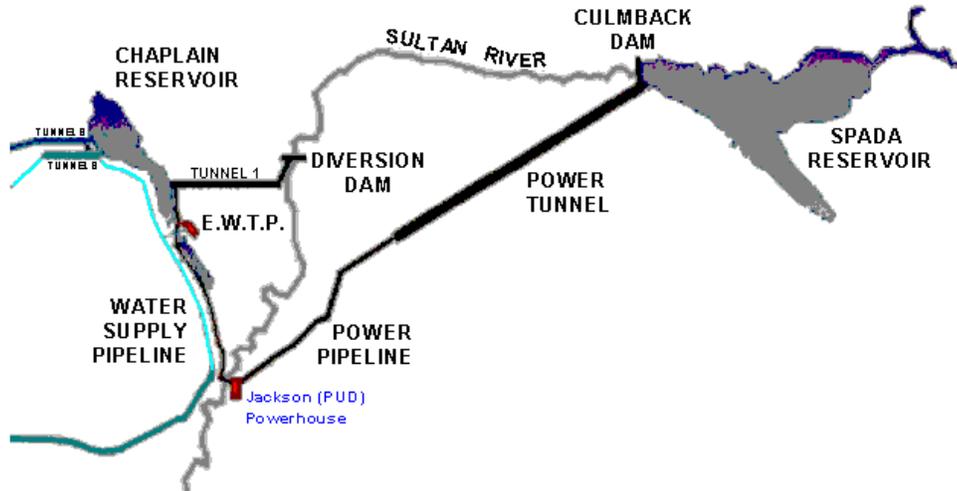
The protection of water quality for public water supply is the primary concern around Lake Chaplain Reservoir. Public access is prohibited in the watershed and limited in surrounding areas. Facilities located around the reservoir and within shoreline jurisdiction include logging roads, water pipelines, telephone and electrical utilities, a chlorine solution line, dams, a backwash solids drying bed, and the water filtration plant. Many of the utilities and pipelines are located in the roadways, but the water pipelines extend into the reservoir. Most of the water filtration plant is located outside of shoreline jurisdiction. The primary activities expected to occur in shoreline jurisdiction in and around the reservoir in the future include utility and road construction and maintenance; forest practices, including construction and retrofitting of drainage improvements on existing roads; and sampling and monitoring activities.

The Federal Energy Regulatory Commission (FERC) license for the Jackson Hydropower project requires the implementation of a Wildlife Habitat Management Plan to mitigate for the impacts resulting from the construction and operation of the Jackson Project. Except for the water filtration plant site, including the adjacent grass field, the 2,216 acres of City-owned lands around Lake Chaplain Reservoir (Lake Chaplain Tract) are managed under the Wildlife Habitat Management Plan. The existing vegetation on the Lake Chaplain Tract is predominantly second growth coniferous forest; with lesser amounts of old-growth forest, mixed forest, deciduous forest, wetland and permanent shrub/brush. Approximately 55 acres along the east shore of Lake Chaplain have never been harvested and now support old growth forest. The Wildlife Habitat Management Plan calls for the preservation of existing old-growth, mixed forest, deciduous forest and wetland habitats, and the management of second growth coniferous forest on a 60 year rotation to maximize habitat value for a wide range of wildlife species. See Figure 9.

The Sultan River. The City owns and operates a diversion dam in the Sultan River. Originally the dam diverted water from the Sultan River to Lake Chaplain Reservoir for water supply, but today water is diverted from the Jackson powerhouse back to the Sultan River to supplement flows for fish. Facilities associated with the dam include a logging/access road, small operations/maintenance building, parking area, grassy area between the building and the road, and monitoring equipment.

At this location, the Sultan River is a Type 1 stream, meaning it is a shoreline of the state. The diversion dam results in a complete blockage to upstream migration of fish in the river. Downstream of the dam, the River supports chinook salmon, recently listed as threatened under the Endangered Species Act by the National Marine Fisheries Service. Approximately 36 acres of small coniferous and mixed forest surrounding the diversion dam site will be managed for old-growth under the Wildlife Habitat Management Plan, and no timber harvesting will occur in this area. Maintenance of existing facilities is the primary activity expected to occur in and adjacent to the River in the future, unless actions to allow fish passage are required.

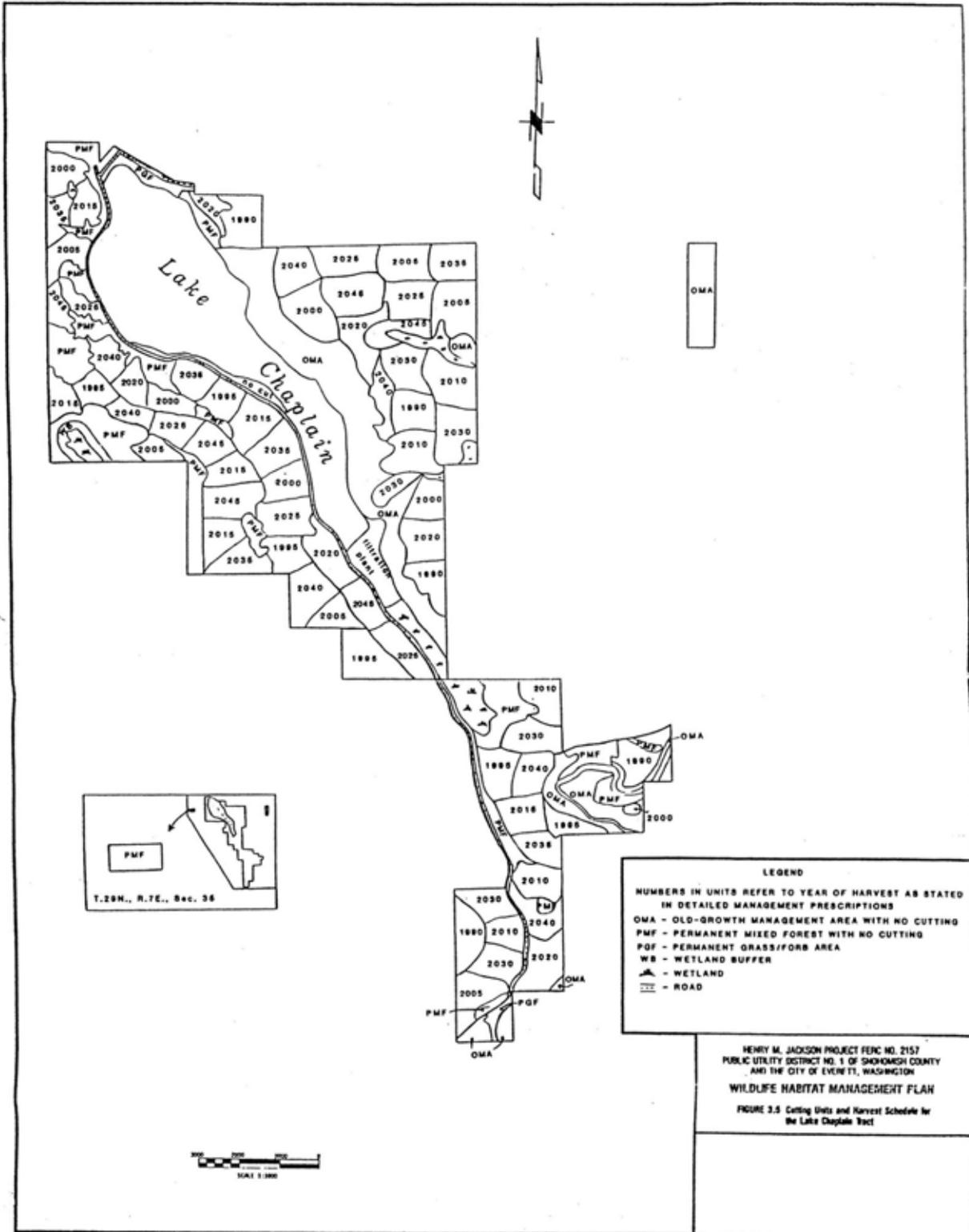
Figure 8: Lake Chaplain Reservoir



Woods Creek. The City owns an area near Lake Chaplain within City limits adjacent to Woods Creek that includes two tunnel portals for water transmission pipelines, small valve house buildings, and a logging road. The piping and valves send water to town through three large transmission lines. The area has not been surveyed, so it is not clear if Woods Creek and/or an associated wetland are actually in the City limits. This analysis assumes that it is in Everett City limits. A survey may be needed at the time any development activity is proposed in the area to determine whether the City or County shoreline master program applies.

Woods Creek in this area is also classified as a Type 1 stream by DNR, meaning it is a shoreline of the state. The area surrounding the tunnel portal and associated facilities will be managed for Permanent Mixed Forest under the Wildlife Habitat Management Plan. No forest practices activity is expected in this area, except for snag monitoring and maintenance.

Figure 9: Lake Chaplain Tract Wildlife Habitat Management Plan



II. General Goals, Objectives, and Policies

A. Introduction: Master Program Plan Elements

The guidelines issued to implement the Shoreline Management Act of 1971 require that eight elements, when appropriate, be included in local master programs. These are shoreline use, economic development, public access, circulation, recreation, conservation, historical/cultural/educational, and flood hazard prevention. In addition, we have included an implementation element.

This section of the Shoreline Master Program includes a broad goal statement for each element and objectives that are intended to indicate how the goal would be achieved. The goals and objectives form the basis for developing the use/activity policies and regulations, as well as the shoreline use environment designations.

This section also includes general policies and regulations that apply to all shoreline uses and activities.

B. Shoreline Use Element

The shoreline use element deals with the pattern of distribution and general location and extent of various land uses in and abutting shoreline areas.

How should the various uses be distributed? To what extent should shorelines be utilized for port activity, marinas, industrial, commercial and other uses?

It should be remembered that the distribution and extent of the various uses along shorelines will be influenced to a great extent by the overall development of the city and adjoining neighborhoods.

The shoreline use element also addresses the compatibility of shoreline uses with other shoreline uses and nearby neighborhoods.

Goal 3.1 To plan and foster all reasonable and appropriate uses while protecting and enhancing the quality of the shorelines of Everett and nearby neighborhoods and preserving special opportunities for water-dependent, water-related and water-enjoyment uses.

Objective 3.1.1 Permit land uses as encouraged by the Comprehensive Plan and which are dependent upon or enhanced by a shoreline location, and/or which provide for increased public access to Everett's shorelines.

Objective 3.1.2 Provide performance and development standards for shoreline uses which achieve compatibility among shoreline activities and nearby neighborhoods.

Objective 3.1.3 Provide for multiple uses of the shoreline where location and existing or proposed uses make this feasible.

Objective 3.1.4 Shoreline and water areas on navigable waterways particularly suited for water-dependent and water-related uses should be reserved for such uses even if there is no current demand for such uses.

Objective 3.1.5 Consider all inventory information when establishing shoreline use environment designation policies, boundaries and use provisions.

Objective 3.1.6 Define and identify reasonable and appropriate uses, and establish development or performance standards to ensure consistency with the Shoreline Management Act.

Objective 3.1.7 Plan for and encourage the relocation, where feasible, of those existing uses identified as being inappropriate uses in shoreline areas.

Objective 3.1.8 Consider the overall development pattern of the City, including neighborhoods adjoining shoreline areas, and the Puget Sound region in planning for shoreline uses and development.

Objective 3.1.9 For shorelines of statewide significance, recognize and protect state-wide interests when establishing shoreline environment designation policies, boundaries, and use provisions, and when establishing development standards.

Objective 3.1.10 Provide an appropriate shoreline use environment designation for the City-owned Lake Chaplain Reservoir properties, with policies and regulations that ensure a safe and adequate water supply, and protect the public health, safety and welfare.

Objective 3.1.11 Provide appropriate shoreline use environment designations for shoreline areas within Everett's Urban Growth Boundary that could be annexed to the City of Everett.

Objective 3.1.12 Provide standards that will minimize impacts of development on nearby properties and neighborhoods.

Policy 3.1.1 Exterior lighting should not impact other shoreline properties or nearby neighborhoods.

Policy 3.1.2 All shoreline development should be designed and operated to minimize noise impacts to other shoreline properties or nearby neighborhoods.

Policy 3.1.3 Screening of outdoor storage areas should be provided.

C. Economic Development Element

The economic development element encourages commercial and industrial activities, such as manufacturing, warehousing, port facilities, tourist facilities, and other activities that are appropriate for urban shoreline locations.

It must be recognized that the type of economic development along the shorelines will be determined to a great extent by the overall economic activities within the city and larger Puget Sound region.

Goal 3.2 To foster appropriate economic development along the shorelines of Everett, recognizing and protecting private property rights, abutting neighborhoods, and areas of high environmental value, consistent with the public interest.

Objective 3.2.1 Develop criteria for the location of water-dependent/water-related, water-enjoyment, and appropriate economic activities, and regulate their use accordingly.

Objective 3.2.2 Identify shoreline environments that are appropriate for water-related/water-dependent, water-enjoyment, and non-water-oriented economic activity and permit temporary, short-term interim uses of such land that would not foreclose or discourage appropriate future uses. Non-water-oriented uses should not be permitted in areas appropriate for water-dependent uses.

Objective 3.2.3 Facilitate the development and/or relocation of water-dependent and water-related industrial and commercial uses in appropriate locations.

Objective 3.2.4 Facilitate the relocation of nonwater-oriented activities to areas away from shorelines in cooperation with business and property owners, governmental agencies, and private agencies.

Objective 3.2.5 Provide for a multi-use concept by increasing public access to the shoreline while maintaining the economic viability of desirable shoreline uses.

Objective 3.2.6 Provide incentives for property owners to provide public access amenities on private property.

Objective 3.2.7 Consider overall city and regional economic development needs as well as potential impacts on abutting upland areas when establishing shoreline use environments, policies and regulations.

Objective 3.2.8 Preserve opportunities for future water-oriented industrial and commercial development.

Objective 3.2.9 Recognize and encourage the economic benefits derived from wildlife and fish habitats, public access, and tourism.

D. Circulation Element

The circulation element addresses the location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other transportation facilities within the shoreline use environments.

A large number of land-based transportation facilities currently exist in Everett's shoreline areas, including the Burlington Northern Railroad, I-5, SR 529, SR 2, SR 527, city arterials and local access roads. In addition, major Port of Everett shipping facilities are located along Port Gardner Bay.

It is unlikely that any of these major facilities will be relocated outside of shoreline areas. Some of the facilities will likely require expansion. In addition, new roads may be located in shoreline areas.

Goal 3.3 To achieve safe, convenient, pedestrian friendly, and diversified circulation systems to provide public access to the shoreline, efficient movement of people and goods, with minimum disruption to the shoreline environment and minimum conflict among shoreline uses and between shoreline users and abutting upland areas.

Objective 3.3.1 Provide for recreational boating facilities, including terminals, moorage, and service facilities.

Objective 3.3.2 Coordinate all transportation planning to provide efficient use and transfer between modes while minimizing, to the greatest extent possible, the adverse environmental impacts of such facilities.

Objective 3.3.3 Require transportation facilities to comply with air, noise, stormwater and water quality regulations.

Objective 3.3.4 Minimize the visual impacts of transportation facilities proposed in shoreline areas.

Objective 3.3.5 Provide for bicycle and pedestrian circulation as a means of personal transportation and recreation, and connect bicycle and pedestrian trails to shoreline public access features.

Objective 3.3.6 Encourage water-borne transportation to be linked to land based public transportation.

Objective 3.3.7 Include public access to the shoreline whenever possible and appropriate in the design and construction of transportation improvements in shoreline areas.

Objective 3.3.8 Discourage the expansion of railroad facilities along Port Gardner Bay in the Urban Conservancy Environment.

Objective 3.3.9 Consider the location and characteristics of roads, railroads, navigable waterways, transportation terminals and public utilities when designating shoreline environments.

E. Cultural Resources Element

Cultural resources means those tangible and intangible aspects of cultural systems, both living and dead, that are valued by or representative of a given culture or that contain information about a culture. These resources are finite and nonrenewable and include, but are not limited to, sites, structures, districts, objects, and historic documents associated with or representative of peoples, cultures, and human activities and events either in the present or in the past. Cultural resources can also include the primary written and verbal data for interpreting and understanding those tangible resources.”

Cultural resources are valuable links to our past and because of their limited and irreplaceable nature should be considered whenever a development is proposed along Everett's shorelines. The cultural resources element is intended to provide a guide for the identification, protection and restoration of buildings, sites, and areas having historic, archaeological, cultural, educational, or scientific values.

Indian villages, military forts, early settlers homes, as well as significant initial industrial and commercial activity were located along Everett’s shoreline because of the proximity of food resources and water being an important means of transportation. Unfortunately, Everett’s shoreline has a limited number of surviving historical structures or archaeological sites.

Everett’s Historic Resources Ordinance, EMC 2.96, established a historical commission to identify and encourage the conservation of the City’s historic resources. A City-wide inventory of historic resources has been completed - Historic Resource Survey Everett, Washington. The only structure with shoreline significance listed in the survey is the Weyerhaeuser Office Building. It is also listed on the National Historic Register.

Washington State regulates archaeological excavations on all nonfederal lands. The existing state laws protect from knowing disturbance and establish a permit process for the excavation and removal of Native American human remains (Chapter 27.44 RCW - Indian Graves and Records) and Native American archaeological and significant historic archaeological resources (RCW 27.53 - Archaeological Sites and Resources) on both public and private lands. The rules that implement these laws are codified as WAC 25-48. Detailed archaeological surveys have not been completed for a large portion of the Everett waterfront. The City has a Memorandum of Understanding with the Washington State Office of Archaeological and Historic Preservation (OAHP). OAHP has forwarded to the Everett Planning Department copies of all archaeological site forms for the City of Everett. Everett is responsible for providing a secure location for the records and can only release the information to the affected property owner. When a known site would be impacted and when a new archaeological resource is encountered during construction, or other activity, the City is responsible for notifying the Tulalip Tribes, ensuring that a professional archaeologist is retained to investigate and report the location and extent of the site, and requiring mitigation for possible impacts.

Goal 3.4 To identify, protect and/or document areas having significant historic, archaeological, cultural, or educational.

Objective 3.4.1 Formulate programs of cultural resource identification, evaluation, restoration, preservation, enhancement, interpretation, and maintenance, and integrate these programs with the Capital Improvement Program and budget.

Objective 3.4.2 Apply the City's historic ordinance, EMC 2.96, as amended, as a part of the plan to protect and preserve significant cultural resources as consistent with RCW 27.53 and 27.54.

Objective 3.4.3 Provide opportunities for educational and scientific uses in appropriate shoreline areas.

Policy 3.4.1 The City should encourage and seek financial support for the completion of an archaeological survey of the Everett Shoreline area in order to establish its archaeological significance, this survey to be conducted by a recognized archaeological authority.

Policy 3.4.2 In processing shoreline permits in non-surveyed areas, the City should require the applicant to consult with professional archaeologists, where appropriate, as to the significance of the specific area involved.

Policy 3.4.3 The City should require recognition and consideration of identified archaeological, cultural, or historical areas which may exist. In areas documented to contain archaeological artifacts and data, the City should require a site inspection and evaluation by an archaeologist in coordination with the Tulalip Tribes. The evaluation should identify the impacts of the proposal and recommend mitigation measures.

Policy 3.4.4 The City should require developers to stop work immediately and notify the Planning and Community Development Department of the City of Everett, if during excavation in the shoreline area, anything of possible archaeological interest is uncovered. The City should subsequently notify the Tulalip Tribes and the State Office of Archaeology and Historic Preservation.

Policy 3.4.5 When archaeological artifacts are discovered during development, the City should require the applicant to hire a qualified archaeologist to investigate and report to the City upon the location, condition, and extent of the site; impacts associated with the proposal; and any recommended mitigation necessary.

Policy 3.4.6 The City should encourage the development of interpretive facilities, the rehabilitation of existing shoreline historical markers, and the installation of new markers that document the history of shoreline activity in Everett.

F. Flood Hazard Reduction Element

Flood hazard reduction measures are actions taken to prevent and/or reduce adverse impacts caused by current flooding, wake or wave action. Structural flood hazard reduction measures include, but are not limited to, dikes, levees, revetments, floodwalls, elevation of structures, biotechnical measures, and channel realignment. Nonstructural measures include planning and

zoning requirements, such as setbacks, wetland restoration, dike removal, use relocation, and stormwater management programs. Structural flood hazard reduction measures such as diking can reduce inundation in a portion of the watershed, but can also intensify flooding elsewhere. Flood hazard reduction measures can also damage ecological functions crucial to fish and wildlife species, bank stability, and water quality. Measures, such as those that modify littoral drift, can result in impacts beyond the project boundaries.

Exemptions. The Shoreline Management Act exempts from the requirement to obtain a Substantial Development Permit the normal maintenance and repair of existing shoreline stabilization and flood protection works and emergency construction-necessary to protect property from damage by the elements. The Act also exempts the operation and maintenance of dikes, ditches, drains or other facilities existing as of September, 1975, which were created, developed or utilized as part of an agricultural drainage or diking system. Although these structures are exempt from obtaining a Substantial Development Permit, compliance with all other prohibitions, regulations and development standards of this chapter is still required.

Incorporation by Reference. Consistent with WAC 173-26-190 the City hereby incorporates the following regulations into this Shoreline Master program:

- EMC 19.30 Floodplain Overlay Districts and Regulations and EMC 19.40.030 Floodplain Overlay Zone Definitions as updated in 2005. (*Ordinance 2857-05 and Ordinance 3053—08, effective 12/24/09*)

The following goals, objectives, and policies are in addition to those incorporated above.

Goal 3.5 To prevent or minimize flood damage while protecting shoreline ecological functions and ecosystem-wide processes.

Objective 3.5.1 Discourage new development in shoreline areas that would be harmed by flood conditions, or which would create or intensify flood hazard impacts on other properties.

Objective 3.5.2 Use existing regulations and other appropriate means to evaluate and prevent flood damages.

Objective 3.5.3 Update floodplain development regulations as needed to ensure compliance with FEMA standards.

Objective 3.5.4 Minimize impact to shoreline ecological functions and ecosystem-wide processes when flood protection measures are necessary to prevent flood damages.

Objective 3.5.5 Give preference to nonstructural flood hazard reduction measures over structural measures when feasible.

Policy 3.5.1 Flood hazard reduction planning should be undertaken in a coordinated manner among affected property owners and public agencies and should consider entire systems or sizable stretches of rivers, lakes or marine shorelines. This planning should consider the off-site

erosion, accretion or flood damage that might occur as a result of stabilization or protection structures or activities.

Policy 3.5.2 Flood hazard reduction structures should be located, designed, constructed and maintained to not significantly impact ecological functions or ecosystem-wide processes.

Policy 3.5.3 Nonstructural flood control solutions should be used wherever feasible, including limiting development in historically flood-prone areas, regulating structural design, and encouraging dike breach projects in appropriate locations. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not provide equal damage reduction, while still achieving the project purpose. Shoreline modifications for flood hazard reduction should comply with the Shoreline Modification requirements in Section V.

Policy 3.5.4 Substantial stream channel direction modification, realignment and straightening should be prohibited, unless proposed as part of an ecosystem restoration project.

G. Public Access Element

The public access element addresses the provision of shoreline access to the general public. Shoreline public access is the ability of the public to reach, touch, and enjoy the water’s edge, to travel on the waters of the state, or to view the water and the shorelines from adjacent locations. There are a variety of types of public access including picnic areas, pathways and trails, floats and docks, promenades, viewing towers, bridges, boat launches, street ends, ingress and egress, parking and others.

Goal 3.6.1 To achieve safe, convenient, and diversified access for the public to the shorelines of Everett.

Goal 3.6.2 The first 100 years of Everett’s history, public access to shorelines was limited by industrial and railroad development. Everett’s citizens have indicated that public access is among their highest priorities. The goal of this section shall be to protect and maintain existing public access, to restore and reclaim public access, and to provide safe and meaningful public access, use and enjoyment of Everett’s shorelines.

Objective 3.6.1 Promote and enhance the public interest in access to waters held in public trust by the state while protecting private property rights and public safety.

Objective 3.6.2 To the greatest extent feasible, protect the public’s opportunity to enjoy the physical and aesthetic qualities of the shorelines of the state, including views of the water.

Objective 3.6.3 Protect and, as appropriate, seek to enhance existing public access including expansion of trails, trail networks, and substantial public viewing areas.

Objective 3.6.4 Regulate the design, construction, and operation of permitted uses in the shorelines of the state to minimize any interference with the public’s use of the water

Objective 3.6.5 Develop (a) citywide public access plan(s) that identifies(y) potential shoreline public access projects, such as park acquisition and development; observation and view points; interpretive displays for areas of significant historic, cultural, educational, or scientific value; trails, including trails connecting public access areas; and other appropriate means of providing public access to the shoreline. The plan(s) should include a list of public access improvements and design standards that provide direction for public and private improvements. Adopt the plan as an element of the Comprehensive Plan. Include appropriate public improvements in the Capital Facilities Element of the Comprehensive Plan.

Objective 3.6.6 Indicate by use of signs and graphics all publicly owned and controlled accessible shoreline areas.

Objective 3.6.7 Continue the cooperative public access efforts between the Port, the City and the County.

Objective 3.6.8 Protect the rights of navigation.

Policy 3.6.1 Public access to shorelines should be required of all developments in shoreline jurisdiction to the extent allowed by law.

Policy 3.6.2 Preference should be given to provision of on-site public access. Off-site public access is appropriate where it would provide more meaningful improvements, or where off-site public access is consistent with an approved public access plan.

Policy 3.6.3 On-site public access shall not be required in the Deep Water Port Environment so long as public access requirements are met or fulfilled by off-site public access. Public access requirements for development in the Deep Water Port Environment may be met or fulfilled by off-site public access improvements, or on-site improvements at the request of the applicant/property owner.

Policy 3.6.4 Public access should be prohibited in the Municipal Watershed Environment.

Policy 3.6.5 Where off-site public access is necessary, construction of trails or trail improvements that link shoreline areas or other improvements that further the objectives of an adopted public access plan should be allowed in meeting public access requirements.

Policy 3.6.6 Public access improvements should be generally consistent with adopted public access plans and the non-motorized transportation (trail) plan if the project area is covered by the plans. However, an alternative proposed by the Applicant may be approved if it is consistent with the goals, objectives, and policies in this SMP.

Policy 3.6.7 Additional studies should be completed to determine if the shoreline trails identified as “Needs Further Study” in the Non-Motorized Transportation Plan are feasible. If not feasible, alternative locations should be identified and evaluated.

Policy 3.6.8 Public access should be provided as close as possible to the water's edge without significantly adversely affecting a sensitive environment or resulting in significant safety hazards. Improvements should allow physical contact with the water where feasible.

Policy 3.6.9 Water-enjoyment uses and non-water-oriented uses that front on the shoreline should provide continuous public access.

Policy 3.6.10 Developments within shoreline jurisdiction that do not have shoreline frontage should provide public access by providing trails or access corridors through their sites.

Policy 3.6.11 Public access improvements should be allowed in buffers, but should be designed to mitigate any significant impacts to environmentally sensitive areas.

Policy 3.6.12 An applicant may construct public access improvements before site development as a part of an overall site master plan, which may be phased. The applicant would receive credit for those improvements at time of development.

Policy 3.6.13 Public access requirements should be completed in a timely manner and assurance devices should be used to provide meaningful and timely public access.

Policy 3.6.14 Signs identifying publicly accessible shorelines should be required at such locations.

Policy 3.6.15 Public access provided by street-ends, utility corridors, and public rights-of-way should be addressed in public access plans and should be preserved, maintained and improved.

Policy 3.6.16 Utility rights-of-way leading to or along Everett's waterfront should provide linear public access.

Policy 3.6.17 Transportation corridors should be designed to be pedestrian and bicycle friendly and to provide safe circulation through and to the shoreline. Pedestrian and bicycle routes should be connected to each other and neighborhoods throughout greater Everett, and should be constructed in such a manner as to provide both recreational and commuting options for pedestrians and bicyclists.

Policy 3.6.18 Developments should be designed to reduce or minimize impacts on scenic vistas of shoreline areas, while accommodating a proposal's objective. Public views of shoreline areas should be preserved.

Policy 3.6.19 Public access improvements should include provisions for disabled and physically impaired persons where reasonably feasible.

Policy 3.6.20 Public access improvements should be designed and maintained to provide for public safety and comfort.

Policy 3.6.21 Public access improvements should be designed and managed to avoid or minimize potential impacts to private property and individual privacy.

Policy 3.6.22 Public access improvements should include physical separation or other means of clearly delineating public and private space in order to avoid user conflict and enhance public safety.

Policy 3.6.23 The City should encourage the multiple use of jetties and groins to increase public access and enjoyment of the shoreline.

H. Recreational Element

The recreational element addresses the preservation and expansion of recreational opportunities through programs of acquisition, development, and dedication.

Goal 3.7 To provide opportunities for diverse and convenient water-oriented recreational experiences for the public where appropriate.

Objective 3.7.1 Locate only water-dependent, water-related or water-enjoyment recreational facilities at shoreline locations wherever possible and appropriate.

Objective 3.7.2 Promote public awareness of the existing and potential recreational uses of the shoreline.

Objective 3.7.3 Relate and link shoreline recreation to the overall recreational pattern of the city.

Objective 3.7.4 Explore appropriate means to provide public recreation at the shoreline and on the water.

Objective 3.7.5 Identify, protect, and reserve for public use and/or enjoyment those shoreline areas containing special qualities that cannot be easily duplicated.

Objective 3.7.6 Inventory all existing shorelines for unique attributes and assign public acquisition priorities accordingly.

Objective 3.7.7 Utilize submerged lands for underwater recreation where it is safe, feasible and appropriate.

Objective 3.7.8 Ensure retention of opportunities for passive recreation (e.g., natural areas, open space).

Objective 3.7.9 Utilize recreational sites as opportunities to educate the public to the value of Everett's shoreline water bodies and historic/cultural resources, (e.g., interpretive signage, "touch tanks", etc.).

Objective 3.7.10 Wherever feasible, use City-owned utility properties in shoreline areas for recreational purposes.

I. Conservation Element

The conservation element addresses the protection, preservation, enhancement and restoration of Everett's natural shoreline resources, including scenic vistas, parkways, wetlands, estuarine areas, fish and wildlife habitat, beaches, geologically hazardous areas, and other valuable natural and aesthetic features.

In the early 1900's, Everett's waterfront was heavily impacted by mills and other industry. Since the 1970's and adoption of the Shoreline Management Act and other environmental laws, shoreline conditions in the City have been improving. The City is committed to the continued environmental enhancement and restoration of shoreline areas. The City's first Environmentally Sensitive Areas ordinance was adopted in 1989, and amended in 1991 to comply with Growth Management Act requirements. This ordinance requires protection and/or mitigation of impacts to critical areas and gives special consideration to Fish and Wildlife Conservation Areas. As Everett's heavily impacted shoreline sites are developed/redeveloped, compliance with City regulations and this SMP will result in improved environmental conditions.

Incorporation by Reference. (*Rev. 3/17/2011*) Consistent with WAC 173-26-190, and in response to the listing of salmon under the federal Endangered Species Act, the City hereby incorporates the following plans, goals, policies and studies into this Shoreline Master Program only insofar as they apply to areas within shoreline jurisdiction. These documents comprise the substance and procedures for regulating development in critical and sensitive areas within the City of Everett including development within the shoreline jurisdiction. While these documents have broader applications within the City of Everett, they are applied here as an essential element of the regulatory structure to address development proposals within shoreline jurisdiction. These regulations apply to all activities and uses in all environmental designations of the Shoreline Master Plan.

For the purposes of this Shoreline Master Plan, EMC 19.33D.360-590, PDI 2-2000, PDI 05-005 and the SEWIP study are the versions in existence on March 21, 2001 unless otherwise noted. EMC 19.37 is the version that became effective on April 28, 2006. The Comprehensive Plan is the version that becomes effective in August 2005. The City's Comprehensive Plan, EMC 19.33D.360 - 590, EMC 19.37, PDI 01-005 and PDI 2-2000 were adopted under the City's general land use authority and police powers. The SEWIP document has not been previously adopted by the City and is incorporated herein as the inventory work that meets the best available science required under RCW 36.70A.172 of the Growth Management Act.

In the event the City should subsequently amend these regulations, the City may apply regulations which offer the greatest protection of sensitive shoreline resources even if the regulations are not formally incorporated within the City's Shoreline Master Plan. The City may, at its discretion, submit the amended version(s) of the regulations to the Department of Ecology as an amendment to the Shoreline Master Program consistent with WAC 173.26.190.

The plans, regulations, policies and studies incorporated by reference are as follows:

- **The City’s Comprehensive Plan** Goals, Objectives and Policies for Critical Areas. These policies provide the basic framework for the protection of sensitive features within the City of Everett and are in compliance with the State’s Growth Management Act as well as the Shoreline Management Act.
- **EMC 19.33.D.360-590 Environmentally Sensitive Areas Ordinance** and applicable definitions in EMC 19.04. EMC 19.33.D.360-590 regulates development in sensitive areas including wetlands, streams, rivers, and steep slopes. These regulations prescribe buffers and setbacks, and provide for the protection of “priority species” such as those “Threatened or Endangered” species protected under the Endangered Species Act. (These definitions and regulations are applicable in all areas of shoreline jurisdiction, except the Marshland Subarea.)
- **Planning Director’s Interpretation 2-2000**, (PDI 2-2000) Interim Procedures, Endangered Species Act Listing for Chinook Salmon and Bull Trout, or a subsequent procedure consistent with National Marine Fisheries Service (NMFS) 4d rule. The PDI 2-2000 sets forth a procedure for reviewing projects that emulates the Section 7 consultation procedures practiced by NMFS. PDI 2-2000 requires a biological evaluation to be performed on all projects within shoreline jurisdiction and may require a more detailed biological assessment if circumstances warrant. Projects may be conditioned and or mitigation measures prescribed that exceed those in the City’s critical areas ordinance (EMC 19.37).
- **Planning Director’s Interpretation 01-005, (PDI 01-005)**. Standard Buffer Width Reduction.
- **EMC 19.37 Critical Areas** and applicable definitions in EMC 19.04 in effect on April 28, 2006 (Applicable in Marshland Subarea only).
- **The Snohomish Estuary Wetland Integration Plan** (SEWIP) including the SEWIP Salmon Overlay published in February 2001. The SEWIP work will serve as the primary inventory information and “Best Available Science” for those areas included in the SEWIP study area.
- **Marshland Subarea Plan.**

As stated above, these policies and regulations apply to all activities and uses in all environmental designations of the Shoreline Master Plan. Where conflict exists between any of these documents, the most protective of shoreline resources shall apply. This may mean that every parcel is not developable or fully developable as desired by a project proponent. Project proponents will be responsible for providing sufficient scientific information to document the environmental impacts and appropriate mitigation measures for their proposals. The City may deny projects that will result in significant ecological impacts that are not fully mitigated, even though the project is consistent with the use provisions of this SMP.

The following goals, objectives, policies and regulations are in addition to those incorporated above.

Goal 3.8.1 To protect against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life.

Goal 3.8.2 To promote and enhance the public interest by protecting, enhancing, restoring, and preserving ecological functions and ecosystem-wide processes, while allowing development in Everett's Urban Growth Boundary.

Goal 3.8.3 To preserve and enhance scenic elements.

Goal 3.8.4 To educate the public to the ecological value of Everett's shoreline areas.

Goal 3.8.5 It is the short-term goal that there be no net loss of the acreage or functional values of shoreline habitat. The long term goal is an increase in the acreage and functional values of shoreline habitat.

Goal 3.8.6 To protect and restore proposed, threatened or endangered species and their habitat.

Objective 3.8.1 Implement area-wide and watershed-based studies and management plans cooperatively with other local, state, and federal resource agencies and the Tulalip Tribes. Identify areas which should be preserved, enhanced, or restored to protect and restore ecological functions and ecosystem-wide processes, and prohibit or severely restrict development in those areas.

Objective 3.8.2 Require that developments address their impacts on scenic views and vistas and that impacts be mitigated to the extent practicable.

Also see Public Access Policy 3.6.17.

Objective 3.8.3 Require that all shoreline uses comply with all applicable local, state, and federal regulations protecting critical areas.

Objective 3.8.4 Through the application of the City's development regulations and this Shoreline Master Program, closely scrutinize the alteration of and prevent long-term degradation of submerged lands, except as permitted for water dependent uses or placement of dredged materials.

Objective 3.8.5 Inform the public about shoreline conservation practices.

Objective 3.8.6 Maintain an updated inventory of the shoreline natural resources and ecosystems by which to judge the impact of any proposed action in shoreline areas.

Objective 3.8.7 Program funds for the preservation, restoration and/or beautification of valuable shoreline resources as a part of the Capital Improvement Program to apply towards projects that will result in a net increase in ecological functions.

Objective 3.8.8 Modify management practices and regulations over time to address changing conditions and new knowledge gained from monitoring activities and research.

Objective 3.8.9 Encourage restoration by limiting impacts on properties that are not being restored. *(Rev. 3/17/2011)*

Policy 3.8.1 Best available science should be used when identifying, evaluating, and mitigating impacts to critical areas.

Policy 3.8.2 The adverse impacts of shoreline uses and activities on the environment should be identified, mitigated, and monitored as appropriate, for all phases of development (e.g. design, construction, and management). (See definition of mitigation in Section 7.)

Policy 3.8.3 Highest priority should be given to the protection and restoration of fish and wildlife conservation areas as defined in EMC 19.37 and 19.33D360-590. These 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. (Partial definition))
- Riparian corridors
- Continuous vegetative corridors linking watersheds
- Significant biological areas. (Plant associations of infrequent occurrence; commercial and recreational shellfish areas; kelp and eelgrass beds; herring and smelt spawning areas; state natural area preserves and natural resource conservation areas; Maulsby Swamp; the Category 1 wetlands on the Simpson Lee site; and Jetty Island)

Except within the Marshland Subarea, development proposed in these areas should comply with EMC 19.33D360-590 and Planning Director Interpretation No. 2-2000, Interim Procedures, Endangered Species Act Listing for Chinook Salmon, as applicable. In the Marshland Subarea, development should comply with EMC 19.37. *(Rev. 3/17/2011)*

Policy 3.8.4 New development on geologically hazardous areas should only be approved if consistent with the City's Environmentally Sensitive Areas (Critical Areas) Ordinance, and when the new development will not result in the need for new shoreline stabilization over the life of the project.

Policy 3.8.5 As sites are redeveloped, unnecessary improvements within shoreline jurisdiction should be removed. Permeable surfaces and buffers along rivers, wetlands, lakes and Port Gardner Bay should be restored to the extent practicable. Buffers and restoration should be provided consistent with EMC 19.33D.360-590 or 19.37, as applicable. *(Rev. 3/17/2011)*

Policy 3.8.6 Existing hydrologic connections between water bodies, water courses, and associated wetlands should be protected.

Policy 3.8.7 Shoreline developments should provide detention and treatment of stormwater runoff as necessary to prevent adverse impacts to receiving waters and shore properties from increased flows, erosion, sedimentation, and pollutants.

Policy 3.8.8 The City should encourage shoreline property owners to take actions, where appropriate, to enhance the shoreline with native vegetation that will improve the condition of fish and wildlife habitat, even if no shoreline development is proposed.

Policy 3.8.9 All developments should comply with existing local, state and federal regulations relating to water quality and critical areas.

Policy 3.8.10 Clearing and grading activities that will have an adverse impact on shoreline resources should be limited to the minimum necessary to accommodate shoreline development. Mitigation of adverse impacts should be required.

Policy 3.8.11 Maintenance activities that include disposal of landslide debris from bluffs should consider impacts to fish and wildlife conservation areas.

Policy 3.8.12 Research activities and educational facilities should be allowed in or near critical areas if the activities and facilities will not significantly adversely impact the area.

Policy 3.8.13 The City should encourage and actively seek funding for the restoration of properties identified as high priority for restoration in the Snohomish Estuary Wetland Integration Plan.

Policy 3.8.14 The City should require clear performance standards, monitoring, and provision for contingency measures based upon best available science for all projects that include compensation for impacts to environmentally sensitive areas and restoration projects.

Policy 3.8.15 The City should monitor and analyze the cumulative impacts of development permitted in shoreline areas, including development exempt from Shoreline Substantial Development Permit requirements. Where impacts are occurring beyond that anticipated, the City should revise the Master program to address the cumulative impacts, and/or revise the conditions of approval of developments as allowed by 19.33D.360-590 and EMC 19.37 (including buffers, compensation ratios, the detailed design of compensation and restoration projects, etc.) to address the new information. *(Rev. 3/17/2011)*

Policy 3.8.16 Restoration should be encouraged by reducing hardships on property owners caused when a shoreline restoration project shifts shoreline management act jurisdiction into areas that had not previously been regulated under the act or shifts the location of required shoreline buffers. *(Rev. 3/17/2011)*

J. Implementation Element

This element deals with the relationship of the Master Program, the Substantial Development Permit Process, the Shoreline Inventory, existing land use regulations, and the need to keep these up-to-date.

Goal 3.9 To implement the Comprehensive Plan and achieve a fair, balanced, and impartial administration of the Shoreline Permit Process and other legal requirements.

Objective 3.9.1 Provide for a review and written report by staff to the Planning Commission at least every five years to assess the performance of and the need for modifications to the Master Program and related land use policies and regulations.

Objective 3.9.2 Process shoreline permits consistent with the City’s Procedural ordinance and assure complete coordination with and review by affected agencies, neighborhoods, and parties.

Objective 3.9.3 Continue to work towards a 1-stop permit system both within the City government and between appropriate federal, state, and local agencies responsible for regulating development in shoreline areas.

K. Shoreline Restoration Element

1. Introduction

Intent. The purpose of this restoration element is to compile the potential shoreline restoration actions that have been identified in the City of Everett, and to describe the City’s strategy for restoration. The information is based primarily on the analysis of ecological functions and potential for ecological restoration described in the Snohomish Estuary Wetland Integration Plan (SEWIP) and the Salmon Overlay. These documents were developed in cooperation with other local, state, and federal agencies; consultants; and the Tulalip Tribes. The information is also based on more detailed restoration planning that was completed for the Marshland Subarea addressed in the Marshland Subarea Plan. This element also includes information from the planning efforts of the Snohomish Basin Salmon Recovery Forum²¹ and other organizations, including the Port of Everett, Sound Transit, and Puget Sound Nearshore Ecosystem Restoration Project (PSNERP). *(Rev. 3/17/2011)*

SEWIP and the Salmon Overlay used a landscape approach to evaluate the estuary as a whole, without regard to jurisdictional boundaries. Therefore, this element also includes information on restoration actions in the Snohomish estuary outside of Everett. It also shows how potential restoration actions in Everett fit within the priorities for tidal restoration in the estuary established in the Salmon Overlay. This landscape context is important to understand the City’s overall restoration strategy; however, this element’s focus is on land in the City’s boundaries that are subject to the City’s shoreline jurisdiction.

How to Use This Information. This element describes to the general public the City’s restoration strategy for shoreline areas. An important component is to present information regarding public sector activities, primarily City and Port projects. Because of public planning and budgeting, there is an opportunity to provide information regarding timing and status. Private property is governed by distinct legal principles. In addition, the City has limited information regarding plans for private property. Nevertheless, property owners planning for the future can use this information to determine how to use their property. Where a site is identified as a potential tidal restoration site, they may decide to sell their property for restoration, restore part of their property, or develop the property. Project proponents can use the information to

²¹ Snohomish Basin Salmon Recovery Forum. 2004. Draft Snohomish River Basin Salmon Conservation Plan, July 2004. Snohomish County Surface Water Management Division. Everett, WA.

determine what types of restoration are possible on their site, and what types of mitigation may be required in the permitting process. Project proponents seeking mitigation sites can find potential opportunities here. Conservation groups or agencies with restoration funding can use this information to purchase restoration sites from willing sellers that will result in the highest gains in habitat.

Organization. Section II of this element provides an overview of high priority tidal restoration opportunities based upon the Salmon Overlay. The information ranks the various opportunities based on the restoration potential and degree of technical difficulty. Section III describes the City’s approach for restoration on private properties. The remainder of this restoration element is divided into sections by shoreline area, and into subsections that address restoration for publicly and privately owned lands respectively.

Each section identifies (a) sites with potential for ecological restoration; (b) restoration goals based on SEWIP and the Salmon Overlay; and (c) mechanisms or strategies to ensure restoration projects will be implemented and review effectiveness. Restoration mechanisms or strategies are again based on SEWIP and the Salmon Overlay, policies in the SMP, and permitting practices of the City of Everett and other agencies such as the State of Washington (Washington Department of Fish and Wildlife [WDFW] in administering the State Hydraulic Code), and the federal government (Corps of Engineers and Environmental protection Agency in administering the Clean Water Act Section 404 and the Endangered Species Act).

The subsections on publicly owned lands include in addition (a) existing and ongoing projects that are being implemented or are reasonably assured of being implemented, (b) additional projects and programs needed to achieve local restoration goals and implementation strategies including potential funding sources, and (c) timelines and benchmarks for these projects. These additional sections regarding public property synthesize existing plans and provide the information in a readable document. All timelines and funding information are based on available information at this time and are subject to change based on future events.

Measurements of Habitat Function. SEWIP and the Salmon Overlay express goals based on the Indicator Value Assessment (IVA) rating as measured by habitat models. Restoration goals in this element are expressed in IVA units. The SEWIP IVA model is used for palustrine wetland mitigation. The Salmon Overlay IVA model is used for tidal habitat mitigation/restoration. Since the priority of the SEWIP documents is tidal mitigation/restoration, this restoration element refers to Salmon Overlay IVA habitat gains, unless otherwise stated.

2. Prioritization of Potential Restoration Sites/Actions

Table 6.2 in the Salmon Overlay ranks potential restoration sites, based on total IVA acre-points per site, existing functions, landscape position, and technical difficulties anticipated. A detailed discussion of the prioritization model is included in Section 6.4 and Appendix D of the Salmon Overlay. Table 6.2 only includes sites where restoration of tidal action can occur. These sites are shown in Salmon Overlay Figure 4.16. The table does not include all sites where restoration of tidal action may be possible or other types of potential restoration actions, including log storage removal enhancement. Tidal restoration ranks higher than other types of restoration

since it restores historic estuarine and freshwater tidal wetland area and creates new habitat areas for salmonids versus enhancement of existing habitat areas.

Figure 4.15 from the Salmon Overlay identified potential log storage removal enhancement areas and a fish barrier removal enhancement. Additional potential enhancement/restoration actions are identified in this element. Other actions may be added over time, as new information is available.

Part of Salmon Overlay Table 6.2 is reproduced below, along with the current status of each property, when known. The model used two different ranking scenarios. In the first, sites near the top generally had a combination of high salmon habitat restoration potential, moderate to low existing values for wildlife and water quality functions, and low technical difficulty. The second scenario (right-hand column scores) used the subtotal ranking score before inclusion of the technical difficulty factor. The sites are ordered in the Table based upon the first scenario, that considered technical difficulty.

The timing of restoration on specific sites is not dependent upon the priority identified below. Factors that will affect timing include existing land uses, property owner willingness to participate in restoration or sell their properties, property acquisition and restoration costs, and funding opportunities.

SEWIP and the Salmon Overlay used a landscape approach to the estuary. This approach evaluates the estuary as a whole, without regard to jurisdictional boundaries. Therefore, the table identifies opportunities within city and county jurisdiction. The landscape context is important to understand the City's overall restoration strategy; however, the rest of this element primarily focuses on land in the City's boundaries that are subject to the City's shoreline jurisdiction.

EVERETT COMPREHENSIVE PLAN

Table 1: Restoration Priorities

Restoration Sites	Site No. ¹	New Tidal Habitat (acres)	Salmon Score Acre-Points ²	Total Score	Total Score ³	Subtotal without Technical Difficulty	In City of Everett	Current Status If Known ⁴
North Tip, South Ebey Island	1	418	36,926	22.06	100	96		Snohomish County owns several hundred acres. Feasibility and design work have not been started..
Biringer Farm	2	340	20,613	21.39	97	92		Owned by Port of Everett. The Port's proposed 2005 - 2009 CIP calls for planning and permitting to begin in 2005, with construction in 2007.
Mid-Smith Island	3	484	26,217	20.56	93	88		Snohomish County has acquired 280 acres. A restoration plan is being developed. An application has been submitted for SRF Board funding for additional property acquisition.
South Spencer Island WDFW	4	297	30,288	20.28	92	81		Dikes are failing. Application submitted for SRF Board funding for restoration.
Poortinga Property, now Qwuloolt Estuary Project	5	355	16,750	19.83	90	84		Currently called the Qwuloolt Estuary project. Tulalip Tribes have acquired 334 acres of property. Additional acquisition and funding are needed prior to construction. Planning is underway, and construction could begin in 2006, if additional funds are obtained. Application submitted for SRF Board funding for design.
SW tip South Ebey Island	6	44	1,293	17.93	81	68		
Marshlands 1	7	354	20,804	17.87	81	89	X	Subarea Plan to address restoration feasibility.
Swan Slough	8	62	4,315	17.58	80	72		
Ferry Baker Island	9	6	714	17.19	78	80	X	
Deadwater Slough	10	621	27,259	17.13	78	75		
Simpson Lee Cat. I	11	35	2,591	16.96	77	69	X	
Smith Island Delta Front	12	143	8,178	16.16	73	75	X	The western portion of this site was purchased by Cedar Grove and a composting facility is under construction. Cedar Grove has established a 200 foot buffer that it is enhancing to improve buffer functions. Potential restoration actions still include reconnection of tidal action to the slough and construction of a setback dike.
Sunnyside North	13	182	10,774	15.56	71	66		
Marshlands 2	14	476	20,884	15.45	70	76	X	Subarea Plan to address restoration feasibility.
Sunnyside South	15	321	19,407	15.41	70	76		
Nyman Farm	16	50	6,670	15.18	69	64		
So. Ebey Island, NW Corner	17	147	4,973	15.08	68	69		
Langus Park #50	18	26	1,201	14.86	67	73	X	
So. Ebey Island, NE Corner	19	182	8,708	14.42	65	71		
Diking District 6	20	225	11,804	14.29	65	60		Snohomish County owns this property and has developed a restoration plan..
N. Smith Is, Union Slough	21	13	761	14.15	64	70	X	
SR 529 Spencer	22	4	385	14.07	64	69	X	
Smith Slough, Smith Island	23	7	400	14.06	64	69	X	
Upper Union Slough	24	82	3,287	13.89	63	58	X	City of Everett and US Army Corps of Engineers. Dike breach project is currently under construction. Breach expected in 2005
South Ebey Island WDFW	25	517	32,801	12.88	58	52		
Totals		5,391	318,003					

1 See Salmon Overlay Figure 4.16

2 Mean of maximum and minimum restoration potential (IVA points per acre x salmon overlay acres)

3 This is a normalized score, where the highest score = 100.

4 Much of this information comes from the Draft Snohomish River Basin Salmon Conservation Plan.

Figure 3: Potential Tidal Restoration Sites

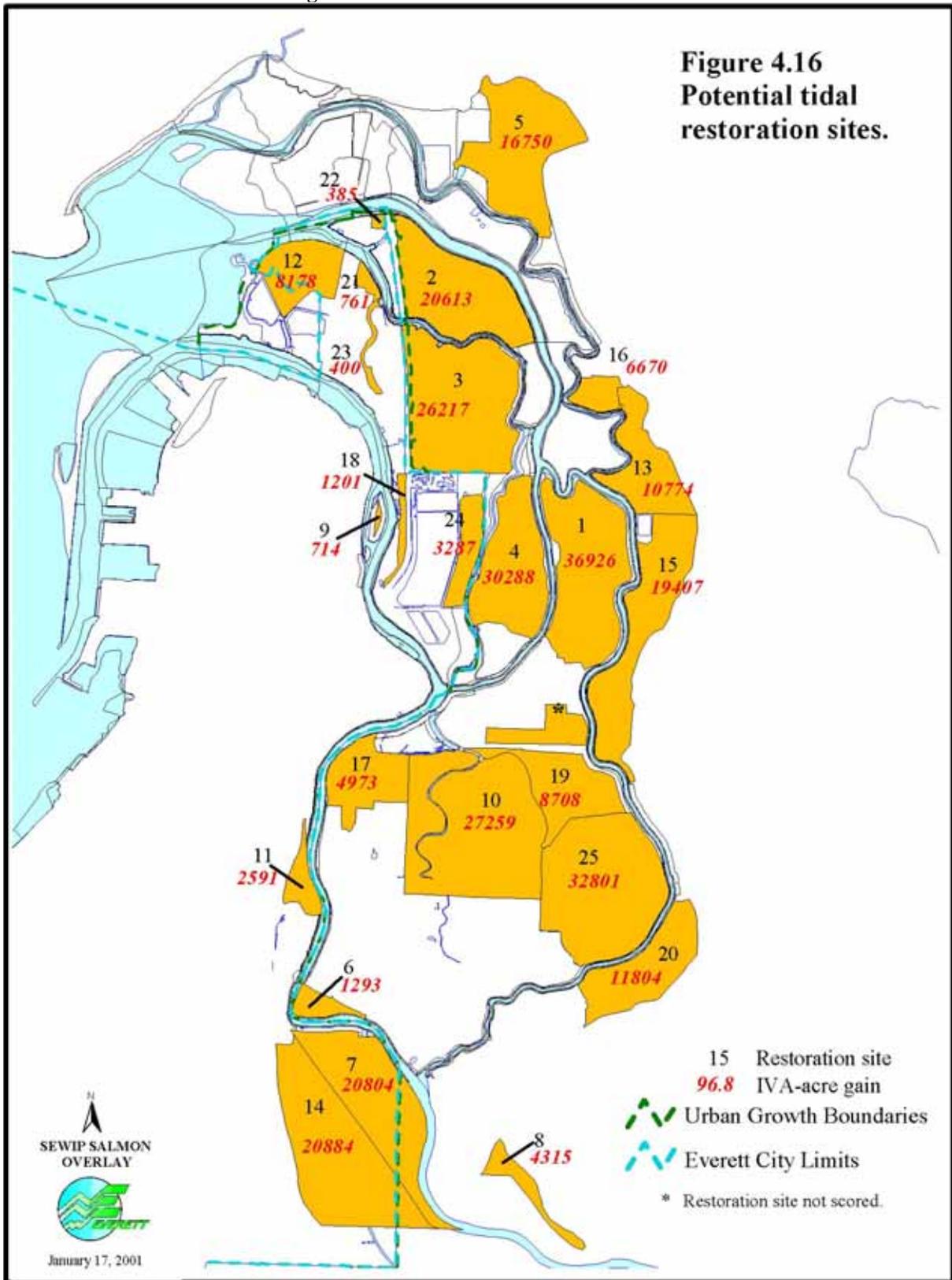
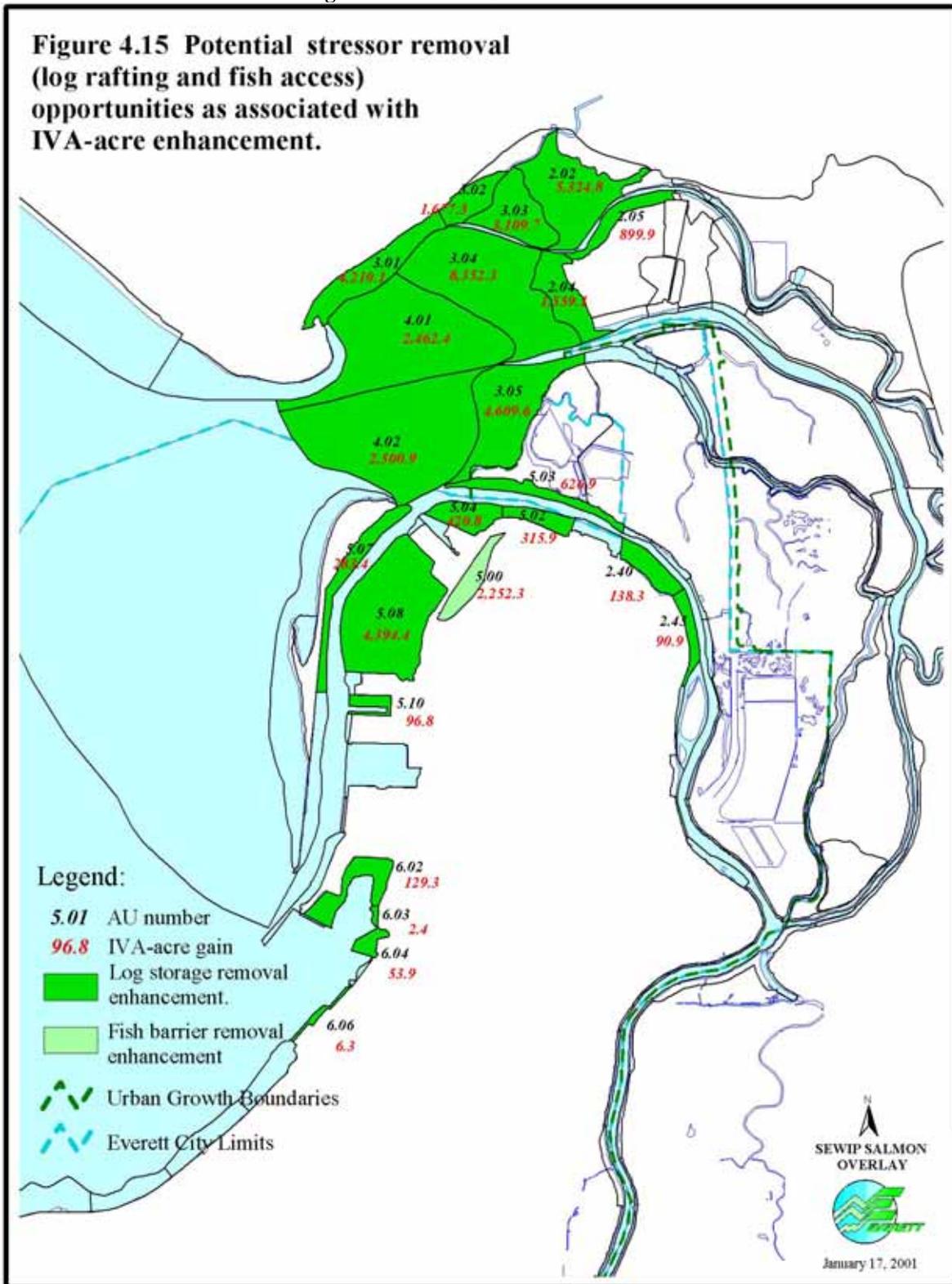


Figure 4: Potential Stressor Removal



3. Approach to Private Properties

Restoration is an action, or actions that reestablish or upgrade ecological shoreline functions through measures that rehabilitate or reestablish physical, chemical, or biological site characteristics. Examples include revegetation, removal of intrusive shoreline structures, and removal or treatment of toxic sediments. Restoration does not imply returning the shoreline area to aboriginal, or pre-European settlement conditions.

Consistent with WAC 173-26-186, the SMP strategy for achieving the restoration potential on private properties is to require or encourage applicants to include activities that restore shoreline functions as components of redevelopments to the extent allowed by constitutional and other legal limits. Many actions that restore shoreline functions on private property are beyond the City's regulatory powers because they are not sufficiently related to impacts caused by property development. Therefore, the schedule and extent of restoration on private properties is a function of timing and other decisions made by the private sector. In some cases private property owners may be willing to sell properties to public agencies or other groups that are pursuing restoration actions. (*Rev. 3/17/2011*)

A number of the SMP regulations require actions that restore shoreline functions in conjunction with development that impacts shoreline functions. The SMP regulations that promote restoration of shoreline functions are discussed under each of the shoreline areas in Sections D - J.²² The SMP regulations include requirements such as

- restoration of the shoreline where nonwater-dependent uses are proposed;
- provision of buffers and buffer enhancement;
- incentives for gaining restoration of tidally influenced salmonid habitat by allowing reduced buffers on Smith Island and North Spencer Islands;
- reviewing nontidal mitigation to ensure that opportunities to recover tidal function are not foreclosed;
- requiring that unnecessary impervious surfaces be removed and buffers be enhanced/restored as properties redevelop, and.
- provisions for mitigation to occur at or before the time of project construction, bonding, monitoring and adaptive management.

In order to increase awareness of potential restoration opportunities, the City will provide this restoration element to property owners owning properties that have been identified as presenting restoration opportunities. It will also be included in pre-application materials provided to potential applicants for shoreline permits.

The City also participates in the open space tax program pursuant to Chapter 84.43 RCW. This program provides the benefits to owners that keep their property undeveloped or in certain less intensive uses. The City will also work with Snohomish County to develop a "public benefit rating system" that can be used as a strategic shoreline protection tool by assigning relative benefit to open space properties based on the link between natural resource features on the property and their ecological function within the City's shoreline jurisdiction.

²² These regulations have been set forth in other parts of the SMP, but are summarized in this Element to provide a complete picture of actions that will restore shoreline functions. The specified regulations, rather than the generalized discussion of restoration in this Section 3.11, apply to projects that are being reviewed by the City. Any changes to shoreline regulations, including those that promote restoration of shoreline functions, would be subject to public review, adoption by the City council and approval of the Department of Ecology.

4. Smith Island, North Spencer Island, and Ferry Baker Island

The overall goal for restoration in the Smith/North Spencer/Ferry Baker Islands area is restoration of historic tidally influenced estuarine wetland and to increase the IVA rating by at least 7,500 IVA acre-points. Additional restoration opportunities include buffer restoration and log storage removal enhancement.

a. Public Property

Summary of Restoration Opportunities/Goal

- 1) City of Everett and Corps of Engineers - Dike Breach East of Sewer Lagoons (Site 24 in Salmon Overlay Figures 4.14, 4.16) - Goal: 4,292 IVA acre-points of tidal habitat gained from mitigation 2,590 IVA acre-points of tidal habitat gained from restoration.
- 2) Slough Reconnection in Langus Park (Site 18 in Salmon Overlay Figures 4.14, 4.16). Goal: 1,370 IVA acre-points.
- 3) Port of Everett Expansion of Union Slough dike breach. Goal: 248 IVA acre-points of habitat for Chinook, 215 IVA acre-points of habitat for bull trout.
- 4) Port of Everett - Removal of Dredge Materials on Ferry Baker Island (Site 9 in Salmon Overlay Figures 4.14 - Approximately 714 IVA acre-points could be gained from removal of the fill on the site.

Description of Individual Restoration/Goals

- 1) Existing Project: Dike Breach East of Sewer Lagoon (Site 24 in Salmon Overlay)
 - (a) Project Description: This Dike Breach Project is projected to restore approximately 93 acres of tidal habitat along Union Slough. The southern 35 acres is restoration that is not tied to any redevelopment project. The northern 58 acres is compensatory mitigation for dike enhancements and future wetland impacts.

The approximately 58 acres of compensatory mitigation provides

- 0.41 acres of compensatory mitigation credit for past dike maintenance projects
- 36.59 acres of advanced compensatory mitigation credit for future City of Everett dike improvements and wastewater treatment plant projects
- approximately 7.8 acres is considered compensation for the conversion of freshwater wetlands to tidal wetlands, and
- approximately 13.1 acres is considered compensatory mitigation for the 8.23 acres of wetlands impacted by the project. (Advanced Wetland Mitigation Agreement for Smith Island Habitat Restoration Project, February 21, 2003)

(b) Schedule: The project is being constructed by the US Army Corps of Engineers. Construction started in August 2003. The restoration project construction will occur over 3 construction seasons (years), with the dike breach scheduled to occur in 2005.

(c) Costs/Funding Sources:
Project total - \$5 million.

City of Everett - \$2.54 million

SRF Board - \$ 0.16 million (used as part of City's matching funds)

US Army Corps - \$2.4 million

(d) Habitat Function Benchmark Gain:

8.23 acres of diked freshwater wetlands filled for dike improvements to protect the treatment plant and construction of dikes around the mitigation site.

55.86 acres of diked freshwater wetlands converted to intertidal wetlands.

Approximately 4,292 IVA acre-points of tidal habitat gained from mitigation. Approximately 2,590 IVA acre-points of tidal habitat gained from restoration.

Note - the IVA-acre gain is more than shown in Table 4.5 because the City/Corps are restoring 93 acres instead of the 82 acres assumed in Salmon Overlay Table 4.5. In addition, based upon the detailed plans, the City expects that the site will develop marsh vegetation over 25% of the site. This amount of vegetation results in a higher IVA score.

(e) Mechanisms to insure implementation and to measure effectiveness: The project is being constructed/managed by the US Army Corps. The advanced mitigation agreement helped assure that the full opportunity to restore this area would occur. The Project includes a monitoring and management program that addresses vegetation, fish, wildlife, soils, hydrology, water quality, and benthic invertebrates.

2) Slough Reconnection in Langus Park (Restoration Site 18 in Salmon Overlay)

(a) Project Description: The site consists of a narrow complex of isolated freshwater wetlands and riparian scrub shrub vegetation. The proposed project would reconnect these wetlands to the river creating excellent lower river off-channel habitat. Lack of this habitat on the lower mainstem of the Snohomish River has been identified in the Salmon Overlay as a significant potential limiting factor for juvenile salmonid function in the estuary.

To ensure the protection of I-5, the project would likely require internal diking on City property along I-5; this diking may make restoration of the southernmost portion of the site impractical. Also, a bridge or large culvert would be needed under Smith Ave. Road and measures would be required to protect Smith Ave. Road and other features of Langus Riverfront Park. Within the site, new channeling would be designed to provide circulation and fish access to all portions of the site. To the south, an existing channel would serve this purpose, to the north, existing connections would be enhanced and channels would be excavated to provide access through generally higher elevation wetlands. Existing trees and shrubs would be left in place as riparian vegetation. Following site construction, the dike would be breached downstream of existing Langus Park facilities, restoring tidal connection to the river.

(b) Schedule: This project could be constructed in conjunction with park improvements to Langus Park. It is anticipated that the park improvements will require some fill or other impact to low quality palustrine wetlands. As was the case with the Sewer Treatment facility, the reconnection of the restoration site with the river would result in an overall increase in shoreline

function. Therefore, the most likely scenario for restoring this area is at the time of park improvements. For planning purposes, it is assumed that this project will occur after 2014.

If funding were available prior to park improvements, Parks would be willing to have the connection made sooner, assuming that an agreement regarding advanced mitigation could be reached with regulatory agencies. It may also be possible to structure an approach that would allow the Parks Department to sell mitigation credits to private developers.

(c) Costs/Funding Sources: Unknown. Funding has not been identified for the park improvements or the restoration.

Potential Funding Sources - grants, development mitigation. The ability to implement this project and the actual timing of any restoration is contingent on securing funding for park improvements and/or funds for restoration.

(d) Habitat Function Benchmark Gain: The model indicates that a high level of function would be provided. A major factor that contributes to this function is the large and deep tidal slough that would be wetted at all tide stages, thus providing fish with refuge from river flows and allowing them to remain in the site over multiple tidal cycles.

A gain of approximately 1,201 IVA acre-points was projected in the Salmon Overlay for a moderately conservative restoration scenario (mean of minimum and maximum effort). Additional value could be added by increasing channelization and connectivity, maintaining and enhancing riparian vegetation. If only 24 acres of the 26-acre site were restored and the calculated score of 57 IVA points per acre achieved, the restoration would yield approximately 1,370 IVA acre-points.

(e) Mechanisms to insure implementation and to measure effectiveness: If the project is constructed, it will include a monitoring and management program similar to those described above.

3) Port of Everett - Union Slough Dike Breach Expansion North Spencer Island

(a) Project Description: In February 2001, the Port of Everett breached a dike along Union Slough on North Spencer Island to create an approximately 24-acre tidal area. The objective was to create mudflat and saltmarsh estuarine habitat to replace the habitat and ecological functions lost as part of Port improvements at the South Terminal. The South Terminal properties that were impacted scored approximately 2.7 to 4.7 IVA points per acre. By November 2002, monitoring showed that the Union Slough site was providing approximately 58.5 IVA points per acre, a large gain compared to the impacted areas. The score could increase in the future if marsh develops over more than 25% of the site, if riparian buffer is established, and as the site accumulates more large woody debris along its shoreline.

The Port of Everett is planning a 4.6 acre expansion of their Union Slough mitigation site. 3.49 acres of the expansion will be mitigation for dredging and improvements at the 12th Street Marina. Expansion will be accomplished by building an internal dike north along the existing site public access area, east along the existing Biringer Farm access road, and south along the site property line to join into the existing dike. Material within this diked perimeter will be

excavated and contoured to form a channel system. The northern dike of the existing site will then be breached and the existing northeast channel connected into the new portion of the site. To resist erosion forces during sustained south winds during high tides, south-facing portions of the new dike will be faced with rounded river gravel/cobble. Over time, marsh vegetation is expected to colonize these areas to provide dike face stability.

(b) Schedule: Construction is expected to occur in the fall/winter of 2004/2005, subject to obtaining the necessary permits.

(c) Costs/Funding Sources: This project is funded by the Port of Everett as mitigation for other projects, including the 12th St. Marina project.

(d) Habitat Function Benchmark Gain: The expansion is projected to result in approximately 248 IVA-acre-points of functional area for Chinook salmon and 215 for bull trout. Mitigation at the 12th St. Marina site almost makes up for the IVA - acre losses at that site. However, the Salmon Overlay requires a minimum of 1 acre of mitigation area for each acre of littoral habitat area lost in the tidal range from -10 feet MLLW to ordinary high water, regardless of whether the loss results from filling to uplands or dredging to create deeper water, as proposed at the 12th St. Marina (SMP Regulation 35.A.3. on page 3-35 of the SMP). The overall mitigation ratios for ecological functions, therefore, will be 11.1 and 10 for Chinook and bull trout, respectively.

(e) Mechanisms to insure implementation and to measure effectiveness: A monitoring and contingency plan has been prepared. Performance guarantees are required per the SMP. In addition, the project must comply with federal and state agency requirements.

4) Dredge Material Removal on Ferry Baker Island (Salmon Overlay Restoration Site 9)

(a) Project Description: Ferry Baker Island is currently owned by the Port of Everett; however, the Port currently has no plans for the property. The Salmon Overlay estimated that approximately 6 acres of intertidal area could be created by removing dredged material/fill that was previously placed on the site. The fill may include wood waste.

(b) Schedule: This restoration is not currently planned by the Port of Everett. The Port may be willing to sell or donate the property to developers for a mitigation site or to other parties who may have funding for restoration.

(c) Costs/Funding Sources: The cost of removal is uncertain, but could be high. Funding has not been identified for restoration.

Prospective Funding Sources: Grants and development mitigation are possibilities for funding sources. The ability to implement this project and the actual timing of any restoration is contingent on securing funding for this restoration and/or mitigation.

(d) Habitat Function Benchmark Gain: Approximately 714 IVA acre-points could be gained from removal of the fill on the site.

(e) Mechanisms to insure implementation and to measure effectiveness: If the project is constructed it will include a monitoring and management program similar to that described for the Sewer Lagoon Dike breach.

b. Private Property

Summary of Restoration Opportunities

- 1) North Spencer: Tidal restoration on Moser property on Steamboat Slough west of I-5. (Salmon Overlay Site 22 on Figures 4.15 and 4.16) Potential gain of 385 IVA acre-points.
- 2) Smith Island: Tidal restoration of Cedar Grove/SI Investments/Kimberly Clark/Weyerhaeuser properties along Union Slough (Salmon Overlay Site 12 on Figures 4.15 and 4.16). Potential gain of 8,178 IVA acre-points identified in Salmon Overlay. Current potential gain is significantly lower due to development on a portion of the site. Restoration opportunities still include dike setbacks and restoration of tidal action to the slough.
- 3) Smith Island: BMC West Property Tidal Restoration (Salmon Overlay Site 21 on Figures 4.14 and 4.16). Potential gain of 761 IVA acre-points.
- 4) Smith Slough tide gate removal. (Salmon Overlay Site 23 on Figures 4.14 and 4.16). Potential gain of 400 IVA acre-points.
- 5) Potential log storage removal enhancement on south side of Smith Island. Potential gain of 627 IVA acre-points points.

Description of Individual Restoration Opportunities

- 1) North Spencer: Tidal restoration on Moser property on Steamboat Slough west of I-5 (Salmon Overlay Site 22 on Figures 4.14 and 4.16). This site is adjacent to I-5 and SR 529, which are both on bridges next to the dike. Dikes could be breached to restore tidal action to this area. Internal dikes would be required to protect adjacent areas from flooding. Over half of the site has been filled with considerable amounts of concrete. Testing for contamination would be required. Potential gain of 385 IVA acre-points.
- 2) Smith Island: Tidal restoration on Cedar Grove/SI Investments/Kimberly Clark/Weyerhaeuser properties along Union Slough (Salmon Overlay Site 12 on Figures 4.14 and 4.16). The Salmon Overlay identified a large potential dike breach restoration in this area. That action would have required internal dikes adjacent to the Weyerhaeuser Lagoon and the BNSF rail line. The project had a potential gain of 8,178 IVA acre-points.

After publication of the Salmon Overlay, Cedar Grove obtained a permit for a composting operation on the western portion of this property. The composting project, which is currently being developed, includes restoration of a 200-foot buffer along Union Slough and creation of a 4-acre wetland along the interior slough.

Tidal restoration of the part of the site where the compost facility is located is no longer feasible during the lifetime of that operation. Potential restoration actions still include:

- Restoration of tidal action to the interior slough, with plantings of additional riparian vegetation along the slough. This will require dikes along both sides of the slough.
- Construction of a setback dike along Steamboat / Union Sloughs. This would allow the area waterward of the new dike to revert to tidal action. The dikes would have to protect adjacent properties. Technical difficulties include removal of wood waste in the buffer along the western part of the site.

3) Smith Island: BMC West Property and (Salmon Overlay Site 21 on Figure 4.16). Potential gain of 761 IVA acre-points. Technical difficulties on this site include potential conflicts with power lines, relatively long dike needed for area restored, and protection of the highway. This could result in a high cost for dikes relative to the area restored.

4) Smith Slough tide gate removal. (Salmon Overlay Site 23 on Figure 4.16). This tributary slough once connected the Snohomish River mainstem and Steamboat Slough. This project would require an approximately 9,200 foot dike on the outer edge of this slough, and removal of the tide gate on Union Slough. Potential gain of 400 IVA acre-points.

5) Potential log storage removal enhancement on northwest and south sides of Smith Island. Potential gain of 627 IVA acre-points on south side of Smith Island. Only a part of assessment unit 3.05 on the northwest side of Smith Island is in the City limits. The potential gain has not been assessed separately for the portion in the City limits. A gain of 4,609 IVA acre-points could be gained if log storage was removed from all of AU 3.05.

c. Regulations in the SMP that Promote Restoration of Shoreline Functions

(apply to public and private property)

- Water-dependent and water-related development is not allowed adjacent to AUs designated Aquatic Conservancy and AU 3.05 on West side of Smith Island. (SMP Regulation 2 on page 5-26; Regulation 1.c. on page 5-33; Regulation 4 on page 6-3)
- Where nonwater-dependent/related uses are proposed, restoration of the shoreline and public access are required (essentially as the water-oriented component of the proposal). (SMP Regulation 2 on page 5-26, Regulation 1.c on page 5-32)
- Where structural flood hazard reduction measures are needed to protect development inland from Aquatic Conservancy areas and AU 3.05, when feasible, new dikes or other stabilization structures shall be constructed inland of the existing dikes. (SMP Regulation 13 on page 6-9)
- As properties redevelop, buffers must be enhanced/restored. Buffers are based on a biological evaluation to assure no net loss of function and must be a minimum of 200 feet on or adjacent to areas designated Aquatic Conservancy and AU 3.05. (SMP Regulation 11 on page 3-31, Revised Regulation 22 on page 3-32)
- Interior wetlands on Smith Island north of 12th Street, on North Spencer Island, and the city-owned property southwest of Weyco Island are categorized based on SEWIP Wildlife

Function. Buffers are based on a biological evaluation to assure no net loss of function. Minimum buffer widths range from 200 to 50 feet.

- Buffers are based on a biological evaluation to assure no net loss of function and a 100 foot buffer is required from Smith's Slough. (Buffer requirements in EMC 19.37.100.A.1, Category 1 Wetland, Appendix A, page 704-278)
- If nontidal mitigation is proposed for loss of nontidal palustrine wetlands, it should be reviewed to ensure that opportunities to recover tidal function would not be foreclosed. (SMP Regulation 35A.4. on page 3-36)
- As redevelopment occurs, unnecessary impervious surfaces shall be removed and shoreline buffers enhanced/restored, except as necessary for access to the water. The Planning Director can require redesign to minimize impacts to existing vegetation and to provide for buffer enhancement. (SMP Regulation 11 on page 3-31)

Other mechanisms. Permits for properties adjacent to Smith Slough will include provisions that preserve the opportunity to reconnect the slough consistent with SMP Regulation 35.A.4.

Figure 5: North Smith Island and North Spencer Island

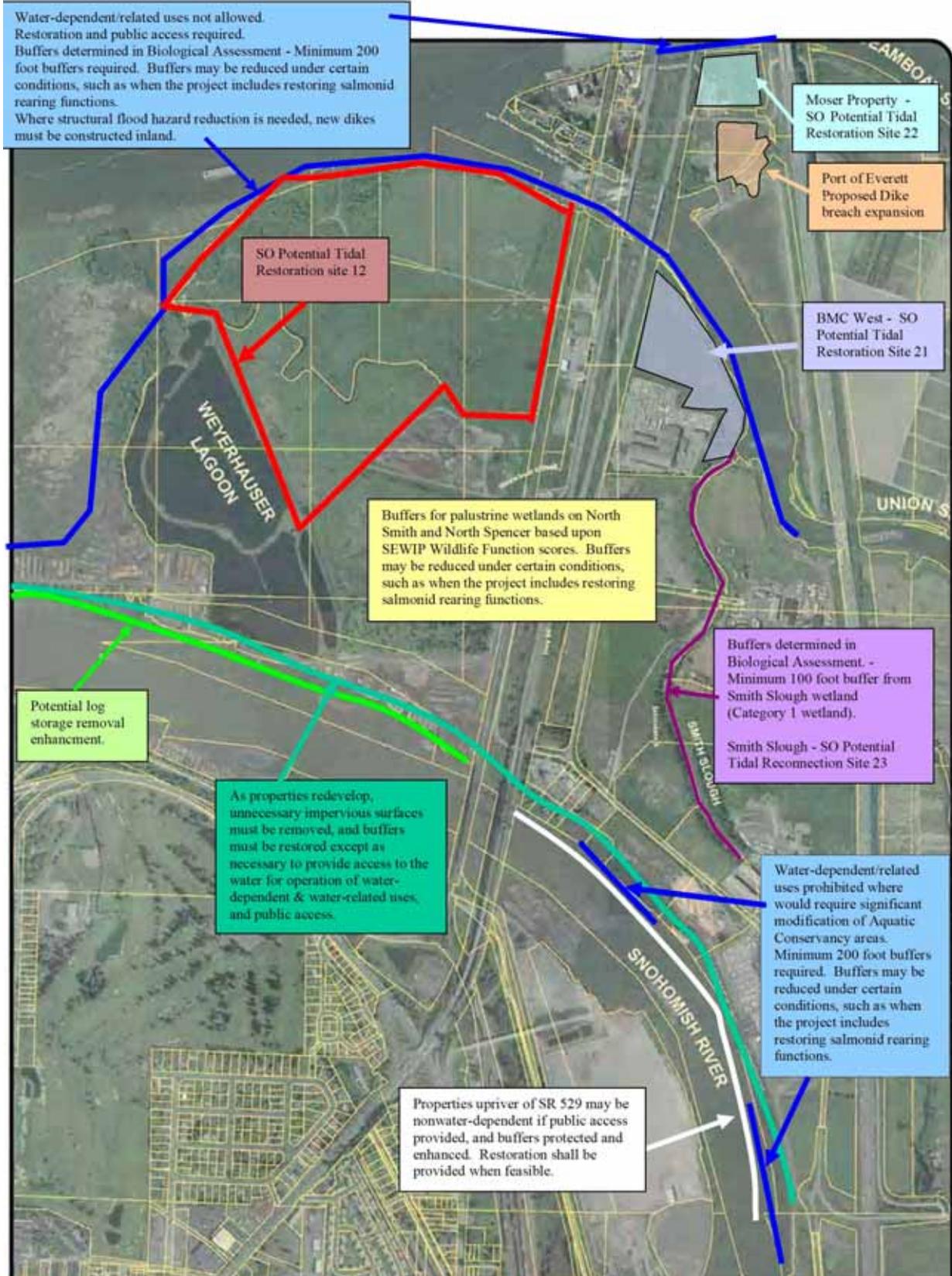
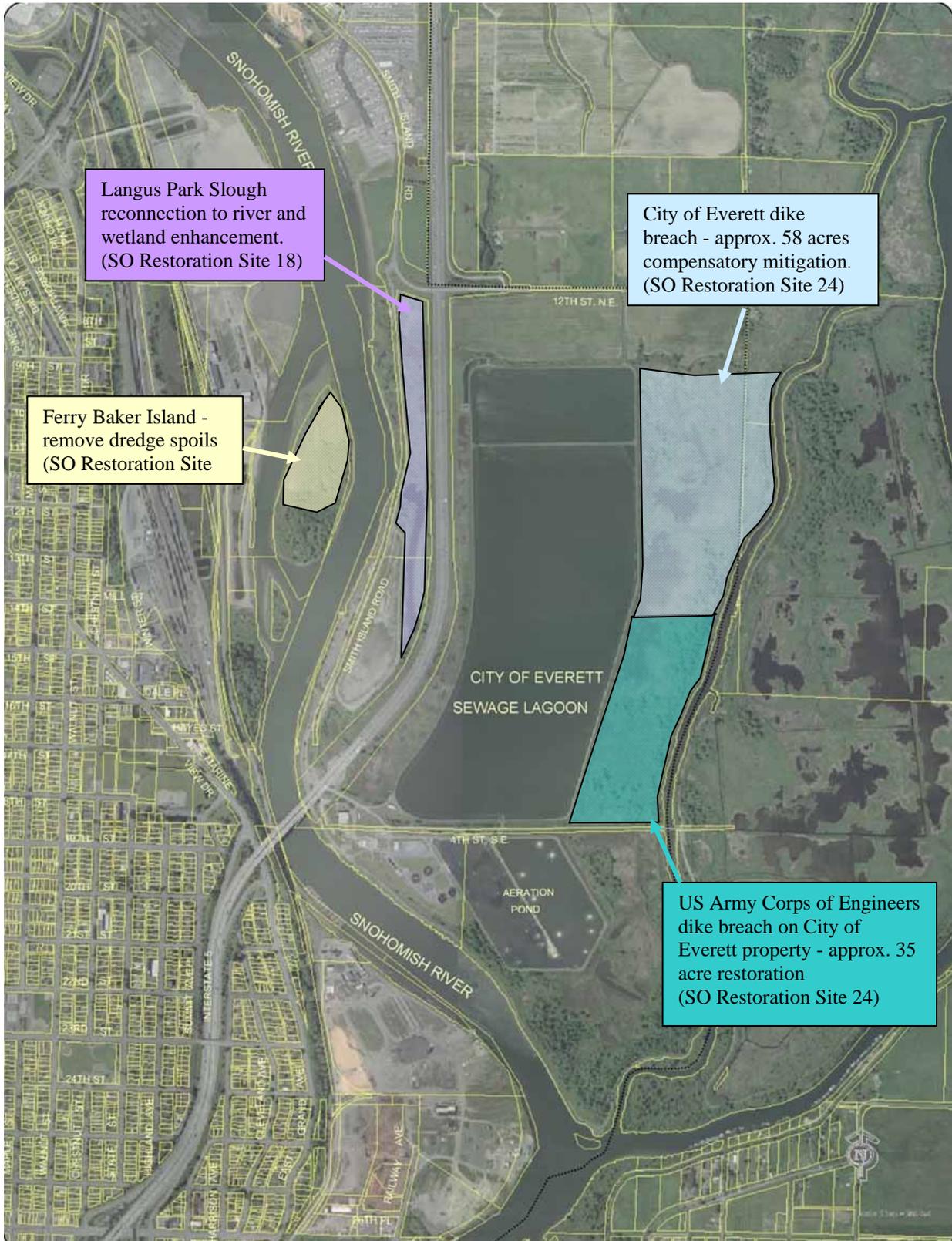


Figure 6: South Smith and Ferry Baker Islands



5. Nearshore / Port Area

The Salmon Overlay did not focus on potential enhancement/restoration actions in this area, since the area is highly developed and opportunities are limited. Recent proposals by the Port of Everett and PSNERP to do beach enhancements along the BNSF line and ongoing consideration of replacing culverts under the BNSF rail line have focused more attention on this area. Enhancement/restoration actions in this area are likely to be very expensive, and are not likely to result in significant new habitat area, but have the potential to enhance the existing habitat.

Because of the uncertainty related to the long-term success of potential nearshore beach enhancements along the BNSF rail line, and the high costs associated with these projects, the gains in IVA acre-points over the next 20 years are expected to be modest. Approximately 300 IVA acre-points could be reasonably anticipated.

Although this area is highly developed, there are small enhancement/restoration actions that can be completed as properties redevelop. Examples include enhancing buffers, improving connections from the shoreline to streams, log storage removal, recontouring riprapped slopes to create intertidal benches at elevations that would support saltmarsh vegetation, and creating small pocket beaches by placing fine-grained sediments in front of existing riprap at low angle slopes to create low gradient beaches. The Draft Snohomish River Basin Salmon Conservation Plan recommends that a habitat restoration strategy be developed for nearshore urban shorelines in Everett and Mukilteo. The Plan states, "Although habitat gains in the nearshore are limited by shoreline development, the location of these urban areas increases their importance for maintaining and enhancing shorelines where possible." The examples of opportunities discussed below could provide information to help agencies and stakeholders formulate an appropriate strategy.

a. Public Property

Examples of Restoration Opportunities

As noted above, restoration opportunities in this area have not been studied or evaluated to the extent of other areas of the shoreline because of constraints in this area. The following projects provide examples of the types of restoration activities that might be feasible and beneficial for the shoreline between the Mukilteo Tank Farm Property and Port of Everett South Terminal (EMU 7). Further analysis and review will be necessary to determine if this type of work should be more widely considered for the nearshore and Port areas.

1) Mukilteo Tank Farm and WSDOT Properties (EMU 7). 2.3 acres of degraded beach could be restored to natural profile. 0.4 acres of the project area will be planted with riparian vegetation to create a new 15- to 30-foot wide riparian buffer between the railroad and the intertidal zone. The habitat gained from restoration: 6.0 IVA acre-points. This is not identified in the SEWIP or Salmon Overlay, but is an on-going proposal by the Port of Everett.

2) Public lands between the Mukilteo Tank Farm Property and Port of Everett South Terminal (EMU 7) - Replace existing culverts under the BNSF railroad that limit transport of sediment and woody debris from the small coastal streams to the beach. While BNSF owns the right-of-way, access from and/or improvements to adjacent properties would likely be required.

- 3) Port of Everett, Kimberly-Clark, and Naval Station Everett: Log raft restrictions in this area could result in an additional 191.9 IVA-acre gain. (Salmon Overlay Figure 4.15)
- 4) Port of Everett Properties on Snohomish River Channel: Naval Station Everett to 10th Street Boat Launch (EMU 5 partial). Cutting back steep riprapped slopes to a slope of flatter than 5H:1V and planting of a saltmarsh bench near the MHHW line could increase the function by approximately 25 percent, however, the areas where such changes can be implemented are limited by adjacent land uses.
- 5) Jetty Island. Creating a full beach profile along the exposed riprap in the southern portion of the AU could result in an increase of over 2400 IVA acre-points. The gain in function for salmonids from construction of a second berm is unknown, but monitoring of the existing berm demonstrated that the gain more than offset the loss of intertidal beach to the berm.

Description of Individual Restoration/Goals

- 1) Mukilteo Tank Farm and WSDOT Properties (EMU 7)
 - (a) Project Description: This shoreline reach includes a part of the former Mukilteo Tank Farm and tidelands to the east which have been conveyed from the US Government to WSDOT and is part of EMU 7. This property is the site of a proposed new Rail/Barge Transfer Facility for which permits are being sought by the Port of Everett. As part of the planned project, the Port will conduct an experimental beach restoration project. The restoration will use in-water fill to restore a more natural beach profile and backshore along 1,000 feet of shoreline that is currently degraded by riprap at the tank farm, fill in an existing parking area, and the BNSF railroad fill. A 15- to 30-foot wide riparian buffer will be planted between the railroad and the intertidal zone. This project will be closely monitored and will serve as a pilot study for possible future similar project, along the shoreline from Seattle to Everett.

This restoration action was not identified in the SEWIP documents.

- (b) Schedule: The project is planned for construction by the Port beginning in mid 2005 and is scheduled for completion in early 2006.
- (c) Costs/Funding Sources: A detailed cost estimate is being developed for the restoration and monitoring related to the rail barge facility. Initial estimates are in the range of \$800,000 - \$1,000,000. The project will be funded by Washington State and the Port of Everett.
- (d) Habitat Function Benchmark Gain: The project area analyzed is a part of assessment unit (AU) 7.10 in the Salmon Overlay which was scored at 13.0 points per acre.²³ The rating of this AU was reduced by the presence of riprap over 50 percent of the shoreline, and extending below MSL over the majority of the area. The portion of AU 7.10 that represents the project area (called AU 7.10A), when evaluated independently of the larger AU, was rated somewhat higher (16.8 points per acre), due primarily to the lesser extent of riprap (not extending below MSL) and the presence of forage fish spawning habitat in AU 7.10A that was unknown at the time of the Salmon Overlay field work.

²³ Forage fish spawning habitat was not known to be in this area when the SO was completed. Adding that into the model, AU 7.10 should have been scored at 14.0- IVA points per acre.

The same AU 7.10A was also scored as it would appear following pier construction and beach restoration. In this condition, the adverse effect of the riprapped shoreline would be removed, raising the score, but a different stressor, overwater coverage would be added, reducing the score. The restoration would include additional forage fish spawning habitat (not reflected in the model sensitivity) and a buffer of riparian vegetation, assumed to be about 25 feet wide and extending over more than 25 percent of the shoreline. This positive indicator, and the lesser influence of overwater structures (added) compared to riprap (eliminated) results in the relative post construction function being a bit higher than that calculated for the present condition (19.2 points per acre vs. 16.8 points per acre). Under the Salmon Overlay assumptions regarding habitat area for use in calculating impacts and gains as change in functional score times change in area, the area of the project site would not be substantively reduced by the in-water fill that creates the 25 to 30-foot wide backshore. This is because a vegetated riparian zone of up to 25 feet in width is considered to be habitat, in that it provides ecological functions (shade, leaf litter, insect fall) to adjacent areas below ordinary high water.

Components of the project could be revised during the permitting process.

- 2.3 acres of degraded beach will be restored to natural profile.
- 0.4 acres of the project area will be planted with riparian vegetation to create a new 15- to 30-foot wide riparian buffer between the railroad and the intertidal zone.

Habitat gained from restoration: 6.0 IVA acre-points.

(e) Mechanisms to insure implementation and to measure effectiveness: The project will be a condition of permits issued for the rail/barge transfer facility by the US Army Corps and WDFW. The Project includes a 20-year monitoring and adaptive management program that addresses vegetation, fish, wildlife, benthic invertebrates, beach stability, and requirements for renourishing to offset sediment losses from the restored beach.

2) Public lands between the Mukilteo Tank Farm Property and the Port of Everett's South Terminal (EMU 7) - Culvert Replacement

(a) Project Description: At least nine streams discharge to Port Gardner Bay through culverts under the BNSF railroad in this area. These streams include Edgewater Creek, Powder Mill Gulch Creek, Narbeck Creek, Merrill and Ring Creek, Phillips Creek, Glenwood Creek, Seahurst/Glenhaven Creek, Pigeon Creek No. 2, and Pigeon Creek No. 1. Potential restoration opportunities include replacing the existing culverts under the BNSF railroad that limit transport of sediment and woody debris from these small coastal streams to the beach. In some cases, these culverts also restrict access by anadromous salmonids to those streams. Culvert replacement would be in the form of either a bridge, or a larger, less restrictive culvert designed to allow both upstream and downstream passage of salmonids as well as free delivery of stream-born sediments and wood to the nearshore.

(b) Schedule: No culvert replacement is currently scheduled. It is most likely that this activity would occur in conjunction with a large scale public project.

(c) Costs/Funding Sources: Cost of culvert replacement is unknown but expected to be high. A primary factor in construction costs is the affect it could have on operating the BNSF rail line

during certain portions of the work. Culvert replacement in this area has been deemed to provide only minimal habitat benefits for the cost incurred; however, in certain circumstances this action may make sense.

Prospective Funding Sources: Grants and development mitigation are possibilities for funding sources. The ability to implement this project and the actual timing of any restoration is contingent on a significant public works project, securing funding for this restoration and feasibility challenges.

(d) Habitat Function Benchmark Gain: A culvert replacement would theoretically improve access by anadromous fish to one of the small freshwater streams entering the sound along this beach reach. Unless the stream mouth upstream of the railroad tracks has tidal habitat, the potential improvement in habitat conditions could not be calculated using the City's model.

(e) Mechanisms to insure implementation and to measure effectiveness: Because of the costs involved culvert replacement is most likely to occur in conjunction with significant public works projects.

3) Port of Everett, Kimberly Clark, and Naval Station Everett

(a) Salmon Overlay Figure 4.15 shows areas where log rafting could be eliminated to reduce stressors.

(b) Schedule: Log storage removal is most likely to occur in conjunction with redevelopment proposals for these properties.

(c) Costs/Funding Sources: Unknown.

Prospective Funding Sources: Grants and development mitigation are possibilities for funding sources. The ability to implement this project and the actual timing of any restoration is contingent on securing funding for this enhancement and/or redevelopment proposals.

(d) Habitat Function Benchmark Gain: 191.9 IVA acre-points

(e) Mechanisms to insure implementation and to measure effectiveness: log storage in these areas is currently a legally nonconforming use. When the owner abandons this use under the City code, the SMP would prohibit future log storage. If log storage removal is offered as mitigation for another project, then the City would require covenants to protect the area.

4) Port of Everett Snohomish River Channel: Naval Station Everett to 10th Street Boat Launch (EMU 5 partial).

(a) Project Description: The shoreline of the lower Snohomish River upstream from Naval Station Everett is owned by the Port of Everett up to the Maulsby Mudflat (AU 5.08). The shoreline is fully armored and has significant moorage for smaller vessels in and downstream of the existing Everett Marina.

Shorelines along the east side of the Snohomish River channel are fully developed and have little opportunity for restoration or enhancement. In a few localized areas, redevelopment can achieve

some habitat gains. As part of the planned North Marina redevelopment project, the Port will remove overwater, creosote-treated structures and clean up industrial debris from shorelines. New structures will be of non-toxic concrete or steel.

Within the Everett Marina, limited opportunities exist to enhance the eastern and southern shorelines by resloping existing riprap to create benches upon which salt marsh vegetation may be encouraged.

(b) Schedule: The Port's North Marina Redevelopment and 12th Street Marina projects are in the permitting process. No schedule exists for other projects in this area.

(c) Costs/Funding Sources: The costs of individual projects will be born by the Port as part of the cost of redevelopment of adjacent properties.

(d) Habitat Function Benchmark Gain: Potential habitat gains in this area are small. For a typical reach of shoreline along the lower Snohomish Channel that is riprapped at approximately 2H:1V slope, cutting back to a slope of flatter than 5H:1V and planting of a saltmarsh bench near the MHHW line could increase the function by approximately 25 percent, however, the areas where such changes can be implemented are limited by adjacent land uses.

(e) Mechanisms to insure implementation and to measure effectiveness: Monitoring, and adaptive management would be required as part of any permit requirement.

5) Jetty Island

(a) Project Description: Jetty Island was formed between 1900 and 1970 by the disposal of dredged sands from the Snohomish navigation channel. The Port owns the island. The shoreline of the lower Snohomish River along Jetty Island, because it is sheltered by the island, is a fine silty sand at mid to upper intertidal elevations and mud at lower elevations. Areas along the inside of Jetty Island (EMU 5) have historically been used for log raft storage, with rafts grounding on the sand and mudflats and low tides. The west side of the island (EMU 4) is exposed to considerable wave action from Port Susan and Saratoga Passage and thus is medium to fine sand; the north end of the island appears to be accreting sands from the Snohomish River while the middle and south end appear to be losing sediment.

In 1990, as a demonstration of a beneficial use of dredged materials, the Port and the Corps of Engineers constructed a berm on the west side of the island across the intertidal to shelter an embayment of about 19 acres from wave action. A 5-year monitoring program conducted by the Port showed that this project met all of its ecological goals and resulting in a substantial net increase in salmon habitat function. The project has since been renourished on three occasions to maintain habitat benefits created.

Two types of new projects are possible on the west side of Jetty Island. Either could be accomplished with hydraulic placement of clean dredged materials from routine navigation channel maintenance dredging.

- The first type of project would be to expand the existing dune and marsh habitat southward by placing new dredged sand along the southern portion of the rock jetty. At present the

beach in this area intersects the jetty at approximately +4 to +6 feet MLLW such that no beach exists at tides above that level. The benefits of having a complete beach profile, as occurs along the northern two thirds of the west side of the island could be gained by this project.

- The second type of project would be to construct a second berm, to create a second protected embayment on the west side of the island.

(b) Schedule: No schedule exists for either of these projects. Ideally, the beach construction would occur before the second berm construction so that the berm could shelter a portion of the new beach.

(c) Costs/Funding Sources: The cost of either of these projects would likely be borne by the Port and the Corps as cooperating agencies that maintain the federal navigation channel.

Prospective Funding Sources: Grants and development mitigation are possibilities for funding sources. The ability to implement this project and the actual timing of any restoration is contingent on securing funding for this restoration and/or mitigation.

(d) Habitat Function Benchmark Gain: In the Salmon Overlay, the habitat function of the west side of Jetty Island (AU 4.03) was relatively low (20.5 IVA points per acre) because of the exposed riprap in the southern portion of the AU. Creating a full beach profile in this region would remove this stressor and is projected to result in a score of 32.0 IVA points per acre. Given the substantial size of this AU, this change is projected to produce an increase of over 2400 IVA acre-points, by far the largest potential functional gain in the nearshore waters in the City.

Constructing a second berm would increase habitat benefits in part of the area benefited by new beach construction described above. While the function of the area sheltered by the berm would be increased because of its change to a depositional environment and because of the probable development of a saltmarsh fringe within the sheltered embayment, some function would be lost in the area of present intertidal sand beach that would be converted to uplands in the berm. Monitoring of the existing berm demonstrated that the loss of area to uplands in the berm is more than offset by the increased productivity within the mudflat created inside the berm.

(e) Mechanisms to insure implementation and to measure effectiveness: Monitoring and adaptive management would be required by permits for shoreline restoration and/or berm construction.

b. Private Property

1) Mukilteo Tank Farm to Pigeon Creek No. 1 (EMU 7)

The shoreline reach between the western City limit and the Pigeon Creek No. 1 delta includes a mix of public and private ownership. BNSF is by far the largest private landowner and any project in this reach of shoreline would require at least access through their right-of-way. Numerous private waterfront lots also extend onto tidelands. The nature of projects that could occur here is fully described under the Public Property section. Further information based on the Port's project is necessary to determine whether this approach has broader applicability.

2) East Waterway - Kimberly-Clark. Potential log raft restrictions on Kimberly - Clark property were discussed in Section E.1.c above.

c. Regulations in the SMP that Promote Restoration of Shoreline Function.

- Buffers will be restored along the Snohomish River as properties redevelop. The extent of buffer restoration will depend upon whether uses are water-dependent or nonwater-dependent. (EMC 19.37)
- Where nonwater-dependent/related commercial and industrial uses are proposed, environmental restoration is required, when feasible. Existing native shoreline vegetation must be preserved and enhanced per the requirements of the SMP. (SMP Regulation 2 on page 5-26, Regulation 1.a. on page 5-31, 32)
- As redevelopment occurs, unnecessary impervious surfaces shall be removed and shoreline buffers enhanced/restored, except as necessary for access to the water. The Planning Director can require redesign to minimize impacts to existing vegetation and to provide for buffer enhancement. (SMP Regulation 11 on page 3-31)

Figure 14: Nearshore

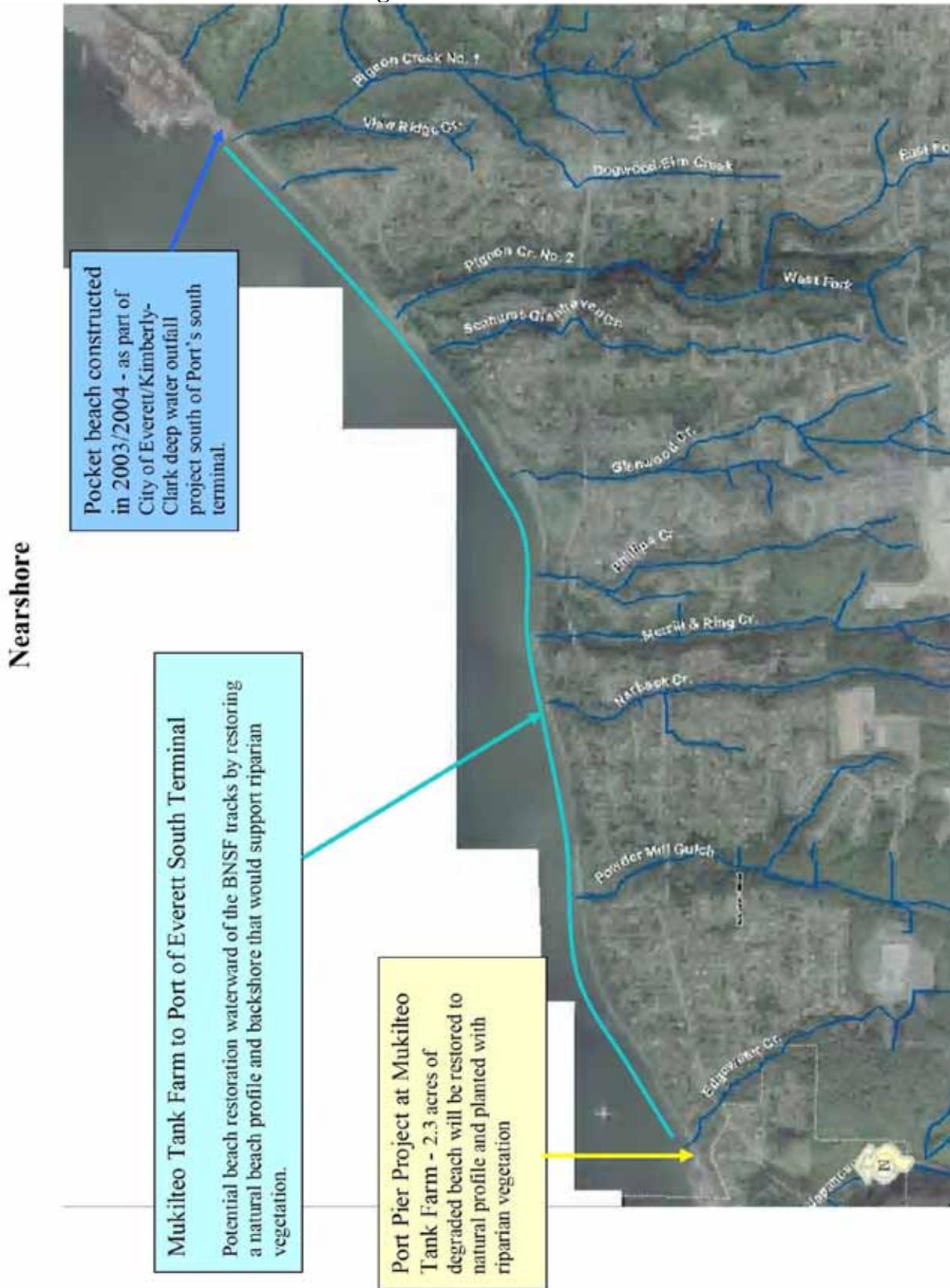
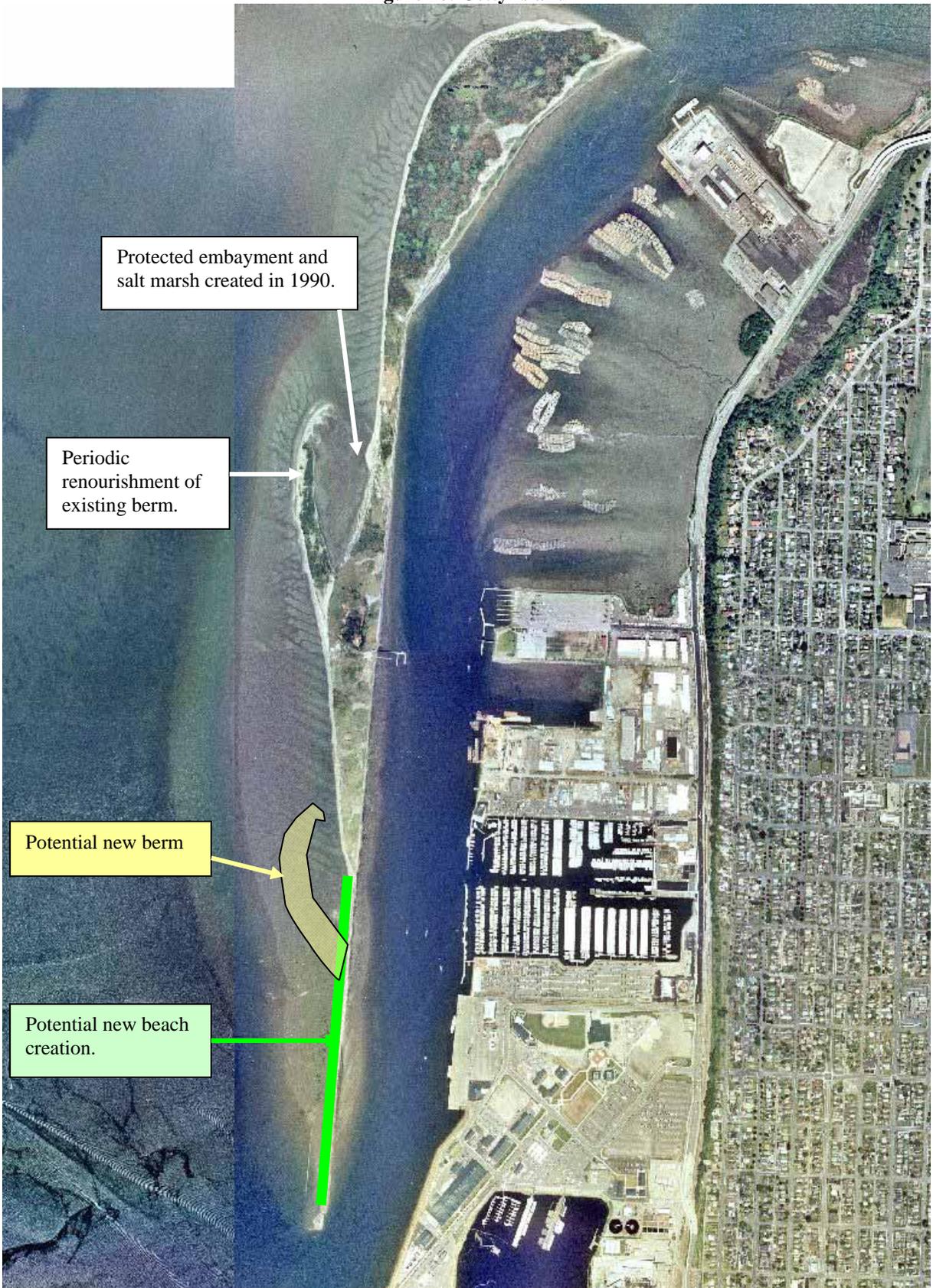


Figure 15: Port Area



Figure 16: Jetty Island



6. Maulsby Mudflats

Potential restoration opportunities in Maulsby Mudflats will be addressed in the Subarea Plan required by the SMP. The Salmon Overlay identifies log storage removal as an enhancement activity in this area (Salmon Overlay Figures 4.14 and 4.15). This could result in a gain of 4,394.4 IVA acre-points.

7. Maulsby Marsh

a. Public and Private Properties

1) Maulsby Marsh fish barrier removal enhancement.

(a) Description of proposal: Maulsby Marsh is a tidal marsh located east of West Marine View Drive. It is separated from the Maulsby Mudflats by the road and BNSF rail line. A culvert at the south end of the marsh extends under the BNSF rail line and West Marine View Drive to connect the marsh to the mudflats. The 36” concrete culvert is approximately 200 foot long. Removal of fish barriers is identified as a potential enhancement in Salmon Overlay Figures 4.14 and 4.15. The project design could include additional connections, and/or retrofit of the existing culvert. This action could result in a gain of 2,252.3 IVA acre-points.

The vast majority of Maulsby Marsh is owned by BNSF and one other private owner. In addition, the residential lots and City park property on the bluff may extend into the marsh. Therefore, opportunities to restore the area are subject to the caveats regarding private property presented in Section C.

8. Everett Mainland - Jeld-Wen to South Side of Highway 2

Potential restoration activities in this area include log storage removal and enhancing buffers along the Snohomish River. Ecological restoration, including removal of intrusive shoreline structures and removal of contaminants could also occur as properties redevelop. This area is primarily in private ownership, though the Port of Everett owns property at Preston Point (Baywood) and the Port and City of Everett own properties upriver of SR 529.

a. Public and Private Properties

Summary of Restoration Opportunities/Goal

1) Log storage removal enhancement. Salmon Overlay Assessment Units 2.43, 2.40, 5.04, and 5.02 (See Salmon Overlay Figure 4.15 for location). Goal - Potential gain of 965.9 IVA acre-points. These properties are owned by Kimberly-Clark and the Port of Everett.

2) Other Potential Restoration Actions. Other potential restoration actions in this area include removal of derelict shoreline structures constructed for historic water-dependent uses and removal of contaminants, similar to the cleanup on the Port of Everett’s Riverside Industrial Park. For example, the City’s Shoreline Public Access Plan includes a potential over-water trail connection around the north end of the peninsula on Kimberly-Clark property. The project could include removal of existing creosoted piles and other enhancements.

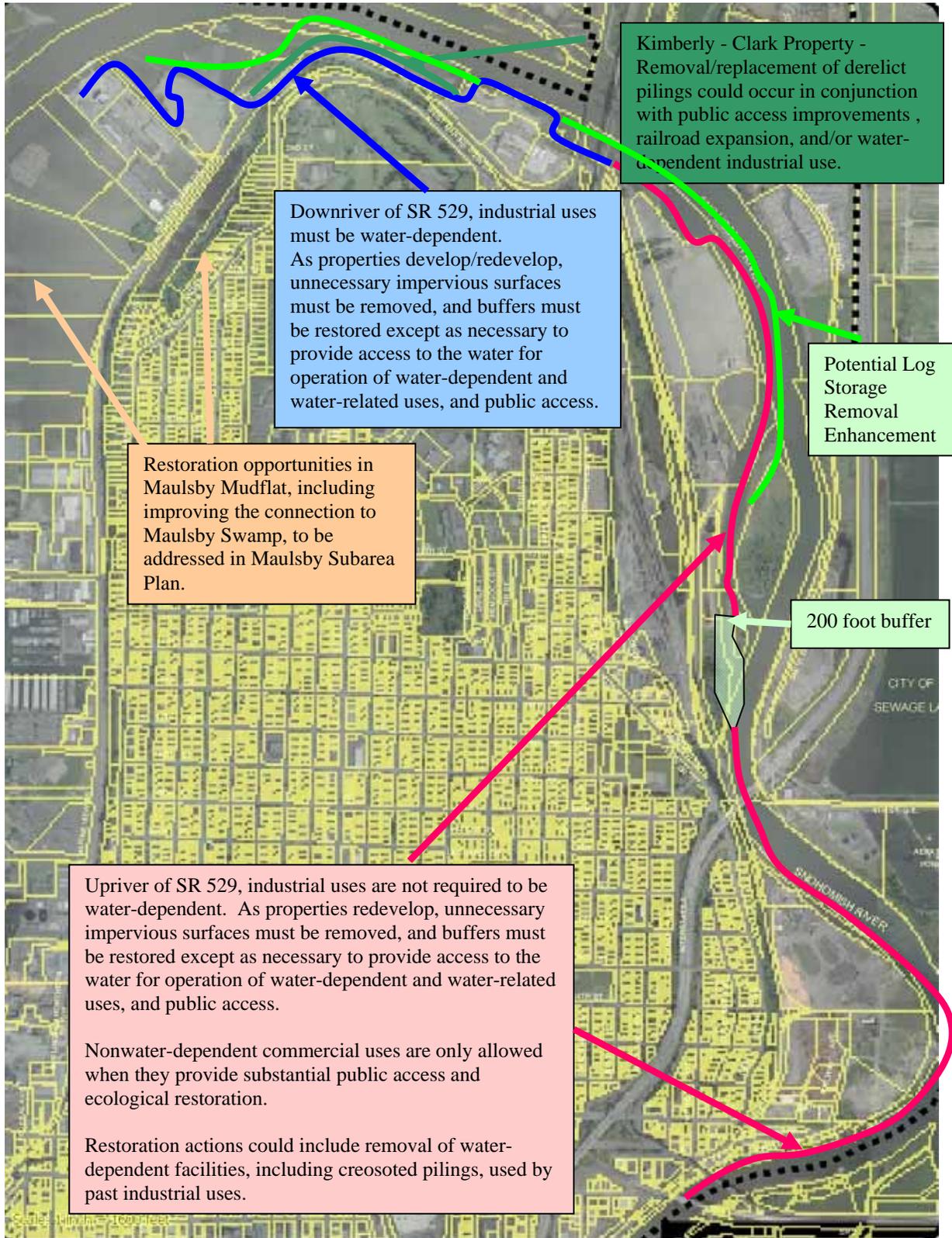
b. Regulations in the SMP that Promote Restoration of Shoreline Functions.

- Buffers will be restored along the Snohomish River as properties redevelop. The extent of buffer restoration will depend upon whether uses are water-dependent or nonwater-dependent. Restoration is required for nonwater-dependent uses:

- Water-dependent and water-related commercial and industrial developments are not allowed adjacent to AUs designated Aquatic Conservancy if they would require new dredging, fill, piers, or other significant modifications (SMP Regulation 2 on page 5-26 and Regulation 1a on page 5-32)
- Where nonwater-dependent/related commercial and industrial uses are proposed, environmental restoration is required, when feasible. Existing native shoreline vegetation must be preserved and enhanced per the requirements of the SMP. (SMP Regulation 2 on page 5-26, Regulation 1.a. on page 5-31, 32)
- As redevelopment occurs, unnecessary impervious surfaces shall be removed and shoreline buffers enhanced/restored, except as necessary for access to the water. The Planning Director can require redesign to minimize impacts to existing vegetation and to provide for buffer enhancement. (SMP Regulation 11 on page 3-31)
- Nonwater-dependent uses are allowed upriver of SR 529 if buffers are protected and enhanced. Restoration is required when feasible. Restoration is defined as significantly reestablishing or upgrading shoreline ecological functions through measures such as revegetation, removal of intrusive shoreline structures, and removal or treatment of toxic sediments.

The City's Shoreline Public Access Plan contains an example of a project that falls in this category. The Plan includes a potential over-water trail connection around the north end of the Everett peninsula on Kimberly-Clark property. The project would include removal of existing creosoted piling and other enhancements, including buffer enhancement. The project is contingent upon the property owner's willingness to participate or sell the property, as well as the results of additional design and environmental analysis. Alternatively, the property owner could undertake a proposal to remove the pilings as an enhancement or restoration project.

**Figure 17: Everett Mainland - Jeld-Wen to South Side of Highway 2
Urban Industrial Environment**



9. Highway 2 to South End of Simpson Site

a. Public Property

Summary of Restoration Opportunities/Goal

- 1) Simpson site - Tidal Restoration (Salmon Overlay Restoration Site 11). Restoration action would be to maximize tidal range in the Category 1 wetland, with a potential increase of 2,591 IVA acre-points.

- 2) Simpson Site - Stream, Wetland, and Buffer Enhancement. Bigelow Creek, riparian wetlands, and other wetlands occur on this site. A Habitat Enhancement Plan will be completed to determine the feasibility of restoration opportunities on the site, and the increase in functions that can be obtained.

Description of Individual Restoration/Goals

- 1) Simpson Site - (Salmon Overlay Restoration Site 11).
 - (a) Description of Proposal, Schedule, and Costs/Funding Sources: The City has Settlement Agreements with the Tulalip Tribes (dated February 19, 2004) and Pilchuck Audubon Society and Public Employees for Environmental Responsibility (dated April 21, 2004). These agreements provide the strategy, timing and approach to funding restoration activities in this area. Copies of these documents are available from the Planning and Community Development Department upon request.

 - (b) Mechanisms to Insure Implementation and to Measure Effectiveness: See the Final Agreement between the Tulalip Tribes of Washington and the City of Everett, February 19, 2004, and the Final Agreement with Pilchuck Audubon Society and Public Employees for Environmental Responsibility dated April 21, 2004.

b. Private Property

Summary of Restoration Opportunities:

- 1) Buffer restoration. This area has historically been used for heavy industry, and little buffer exists along the river. As properties redevelop, buffers will be enhanced consistent with SMP requirements summarized in Section C. This should result in a net increase in a number of functions.

c. Regulations in the SMP that Promote Restoration of Shoreline Function

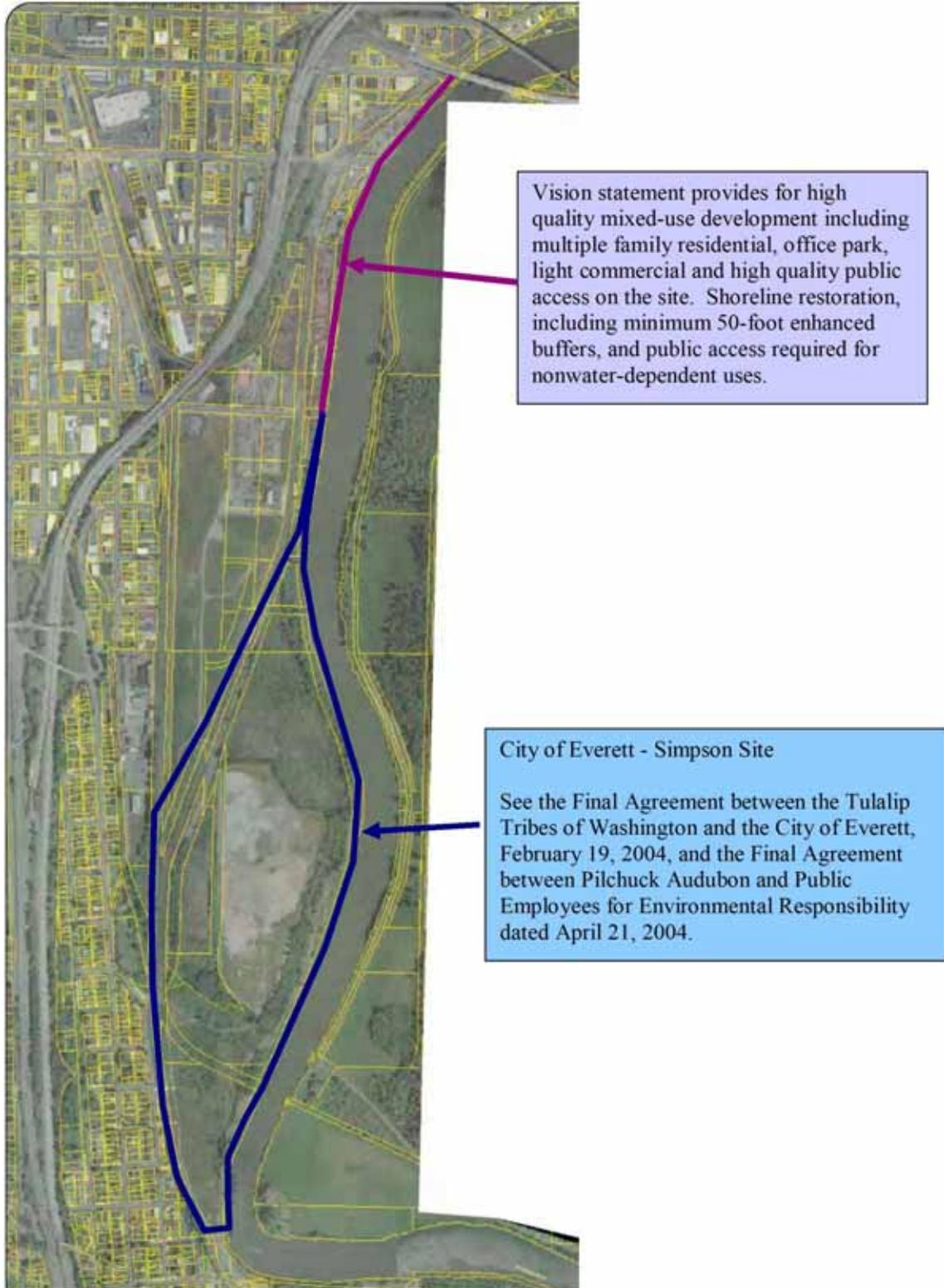
- Where nonwater-dependent/related commercial uses are proposed, restoration of the shoreline and public access are required (essentially as the water oriented component of the proposal). (SMP Regulation 2 on page 5-26, EMC 19.37)

- For nonwater-dependent residential, recreational, and industrial uses, the biological assessment and buffer width/enhancement requirements of EMC 19.37 apply to the river and any associated wetlands. Buffers can be no less than 50 feet when enhanced. Public access may be located in buffers (SMP Regulation 18 on page 3-32).

- As redevelopment occurs, unnecessary impervious surfaces shall be removed and shoreline buffers enhanced/restored, except as necessary for access to the water. The Planning Director can require redesign to minimize impacts to existing vegetation and to provide for buffer enhancement. (SMP Regulation 11 on page 3-31)

- When restoring and enhancing buffers along the Snohomish River, overhanging vegetation shall be provided when feasible. (SMP Regulation 20 on page 3-32)
- Stormwater facilities such as wetponds are prohibited in buffers for the Snohomish River (Category 1 streams and wetlands). (SMP Regulation 26 on page 3-33)

Figure 18: Highway 2 to Simpson - Urban Multi-Use Shoreline Environment



10. Marshlands

(Rev. 3/17/2011)

The overall goal for restoration in the Marshland area is restoration of historic tidally influenced estuary wetland to increase the IVA rating by at least 30,800 IVA acre-points. Additional restoration opportunities include non-tidal wetland enhancement, connecting hillside tributaries and Wood Creek into tidally restored areas, and riparian buffer enhancement.

a. Public and Private Properties

Summary of Restoration Opportunities

The Salmon Overlay identifies 2 potential tidal restoration sites in this area (Restoration Sites 7 and 14) with a potential gain of approximately 41,600 IVA acre-points. Both sites are a mix of private and public properties. Public property owners include the City of Everett, Snohomish County, and the Marshland Flood Control District.

Site 7 is located east of the BNSF rail line, and site 14 is located west of the rail line. The Salmon Overlay estimated that tidal restoration could result in a gain of over 20,800 IVA-acre-points on each site.

The Salmon Overlay documents that there are technical difficulties on both sites. The Marshland Subarea Plan was prepared to address the feasibility of restoration considering factors such as protection of power lines and other utilities, the BNSF line, the Lowell Snohomish River Road, the Marshland pump station and associated drainage, and the desires of multiple private and public property owners. While the Subarea Plan addresses the protection or modification of these features, a significant number of engineering, hydraulic, and hydrologic studies are required to determine if the conceptual plan is feasible.

The Subarea Plan is incorporated by reference in this SMP. The Subarea Plan includes proposed restoration outside the Everett City limits within Snohomish County jurisdiction. The policies and regulations in this SMP are not applicable to that area.

Potential restoration areas are shown on the Marshland Subarea Conceptual Land Use Plan and the Conceptual Post-Restoration Tidally Influenced Wetland Zones Figures. Restoration opportunities include tidal restoration, non-tidal wetland enhancement, connecting hillside tributaries and Wood Creek into tidally restored areas, and riparian buffer enhancement.

Description of Restoration Goals and Example Phasing Plan

1) Marshland Subarea Plan. Implementation of the Subarea Plan could result in an increase in 30,800 IVA-acre points at a cost of over \$60,000,000.00, including the cost of required studies.

a. The Subarea Plan includes a potential phasing strategy that is summarized below. Note that this is only an example and phasing may occur differently than shown. The sequence of phasing could be based on a number of factors including, but not limited to: property ownership, degree/complexity of infrastructure change, ecological benefit, proximity to the river edge, the results of technical studies, design and implementation cost, and grant funding sources.

The results of technical studies, property owner willingness to participate, and the restoration design process may result in changes to the proposed restoration boundaries and phasing.

The Habitat Restoration / Recreation Phasing Figure shows 4 phases of implementation, with the lowest cost and least complex portions of the restoration occurring soonest. For examples, Phases 1 - 3 can be implemented without relocating the Marshland Flood Control District pump station.

Phase 1: The Phase 1 area is close to the river, on existing public land, and requires no changes to the flood control infrastructure (Marshland Canal and pump station). It would require a new connection to the river that would include a new bridge through the existing river levee on Lowell Snohomish Road. It would also require two new dikes, one paralleling the Marshland Canal on the east side and one bordering private property on the south side. The dike on the east side of the Marshland Canal would be temporary until Phase 4 is implemented; however, all of the material to build the dike could be reused in Phase 4. Phase 1 also includes low cost riparian habitat enhancement along the river shoreline. This phase's habitat improvements would provide high ecological benefit to fish and wildlife including substantial tidal marsh restoration. Phase 1 should include development of an unsteady hydraulic model for the entire subarea to understand how water flow will occur with the subarea.

The portion of Phase 1 located outside the City limits would be implemented by Snohomish County as mitigation for County Public Works projects.

Phase 2: The second phase is shown on private land that provides another substantial tidal marsh restoration opportunity without changes to the Marshland Canal and pump station. It requires acquisition of private agricultural land by a public agency prior to implementation. The current owner of this property is supportive of the restoration plan and is willing to sell. A new permanent dike would be required around the perimeter of the Phase 2 property; a portion of this dike adjacent to the existing Marshland Canal would be temporary. This tidal restoration would require a new connection to the river that would include a new bridge through the existing river levee on Lowell Snohomish Road and a channel under an existing BNSF Railway trestle. A connection to Wood Creek would occur in Phase 4. Excavation for the relocated Marshland Canal (implemented with the Flood Control Structure Relocation in Phase 4) could occur during Phase 2. Material excavated for the future canal could be used as material for the temporary dike. This material could again be reused for the permanent dike along the western edge of the restoration proposed in Phase 4. Phase 2 would nearly double the ecological benefit from restoring high value tidal marsh habitat included in Phase 1.

Phase 3: This phase occurs on mostly private land and is one of largest phases in terms of acreage. This phase would require acquisition of private agricultural land by a public agency prior to implementation, except for lands owned by Puget Sound Energy. No changes to the Marshland Canal or pump station are required for Phase 3 to be implemented. The scope of this phase entails mostly restoring non-tidal freshwater marsh to areas that are currently agriculture. In cases where existing wetlands occur they would be preserved and enhanced. These restoration actions are low cost and mainly involve decommissioning of drain tile systems and

protecting adjacent lands from hydrologic changes. Phase 3 also includes recreation amenities, such as trails, small parking areas, and passive open space, along Lowell Larimer Road.

Phase 4: The greatest changes to infrastructure are included in this phase. It also covers the largest area; however, it mostly occurs on publicly owned land. The major infrastructure changes include relocation of the pump station to the southern boundary of the site and relocation of the Marshland Canal through the southern tidal wetland area implemented during Phase 2. Other elements of this phase include a hydraulically controlled culvert connection to the land in the northwest portion of the site, two water channels below existing BNSF Railway trestles, improvements to the lower Wood Creek channel, and a flume connection conveying Wood Creek to the an expanded tidal marsh. Phase 4 involves extensive dike construction to protect adjacent private lands, and relatively limited private property acquisition. Phase 4 has high ecological benefit, but requires significant costs to implement major infrastructure changes.

b. Schedule: Implementation of the project will occur as funding allows. The subarea plan could be implemented in phases as described above. Phase 1 would occur as funding is received and the appropriate environmental investigations and technical issues are resolved. Phase 2 requires acquisition of private agricultural land and is part of another restoration opportunity. Phase 3 involves the most land of all the phases and also requires the acquisition of private agricultural land for restoration and/or voluntary property owner restoration/mitigation. Phase 4, the final phase, includes recreation and changes to the infrastructure in the project vicinity. Due to the changes in infrastructure, this phase involves substantial costs and would therefore be dependent on funding opportunities.

It is understood that private landowner willingness may change over time. It is the intent of the City to be opportunistic about landowners shifting their decisions as the project moves forward. Such changes may provide more land for restoration and aid various project objectives.

c. Costs/Funding Sources:

The scope of the habitat restoration proposed in the subarea plan is sufficiently large to necessitate phasing. For planning purposes, a feasibility planning level cost opinion estimate for the phased implementation of the Preferred Plan was developed. Table 5-4 summarizes the expected magnitude of project costs associated with general requirements, earthwork, structures, restoration and enhancement, recreation, and land acquisition for each proposed phase of implementation. These are planning level opinions of probable cost developed for comparative assessment of alternatives. These cost opinions should be re-evaluated and updated once funding is secured, previously described studies are completed, and detailed engineering designs are developed.

Table 2: Summary of Subarea Plan Costs by Phase [1]

Cost Summary	Phase 1	Phase 2	Phase 3	Phase 4	Total
<i>General Requirements</i>	\$900,000	\$1,113,000	\$573,000	\$4,717,000	\$7,303,000
<i>Earthwork</i>	\$2,361,366	\$4,080,872	\$212,650	\$9,947,580	\$16,602,468
<i>Structures</i>	\$1,235,000	\$1,397,500	\$0	\$13,229,500	\$15,862,000
<i>Restoration/Enhancement/Preservation</i>	\$908,600	\$94,600	\$0	\$410,800	\$1,414,000
<i>Recreation</i>	\$0	\$351,019	\$777,300	\$215,141	\$1,343,460
Subtotal	\$5,404,966	\$7,036,991	\$1,562,950	\$28,520,021	\$42,524,928
Sales Tax	\$0	\$0	\$0	\$0	
Estimated Construction Subtotal	\$5,404,966	\$7,036,991	\$1,562,950	\$28,520,021	\$42,524,928
Undefined Items at Planning-Level Estimate	\$540,497	\$703,699	\$156,295	\$2,852,002	\$4,252,493
Construction Contingency at Planning-Level Estimate (10.0%)	\$1,621,490	\$2,111,097	\$468,885	\$8,556,006	\$12,757,478
Estimated Construction Total (30.0%)	\$7,566,952	\$9,851,788	\$2,188,130	\$39,928,029	\$59,534,899
<i>Land Acquisition</i>	\$0	\$351,019	\$777,300	\$215,141	\$1,343,460
Engineering, Design, Permitting, Construction Management Costs (25.0%)	\$1,891,738	\$2,462,947	\$547,033	\$9,982,007	\$14,883,725
Total Estimated Implementation Cost	\$9,458,691	\$12,665,754	\$3,512,463	\$50,125,177	\$75,762,084

[1] Notes:

- (a) Estimated construction costs are in May 2009 dollars
- (b) Costs provided are planning level opinions of probable cost
- (d) Sales Tax not included for improvements constructed on City-owned properties

No committed funding sources to implement the subarea plan currently exist; however, there are many potential sources from which funding may be derived. The majority of funding for the subarea plan will likely originate from private and public grant funds. Additional funding for elements of the subarea plan may also come from special levees or bonds, from tax incentives for landowners, or through the establishment of public or private mitigation banks. Where possible, federal, state, and local funding sources or land resources will be used to match grant funds and maximize funding opportunities throughout all phases of the project.

A portion of the Phase 3 non-tidal restoration in the center of the subarea is on property owned by Puget Sound Energy (PSE). PSE will give priority to using this property for its own restoration and mitigation activities, and retains the right to operate existing transmission lines and perform any necessary upgrades and maintenance activities.

d. Habitat Function Benchmark Gain: Potential habitat gains in this area include 30,800 IVA-acre points in tidally restored areas.

e. Mechanisms to Ensure Implementation and Measure Effectiveness: Monitoring and adaptive management would be required as part of any permit requirement. See the Marshland Subarea Plan for monitoring mechanisms to review implementation and effectiveness described in the Snohomish River Basin Salmon Conservation Plan (2005) and the SEWIP SO. Projects should incorporate monitoring elements as they are developed by the Snohomish Basin Technical Committee and Estuary Working Group.

Figure 19: Marshland Subarea Habitat Plan

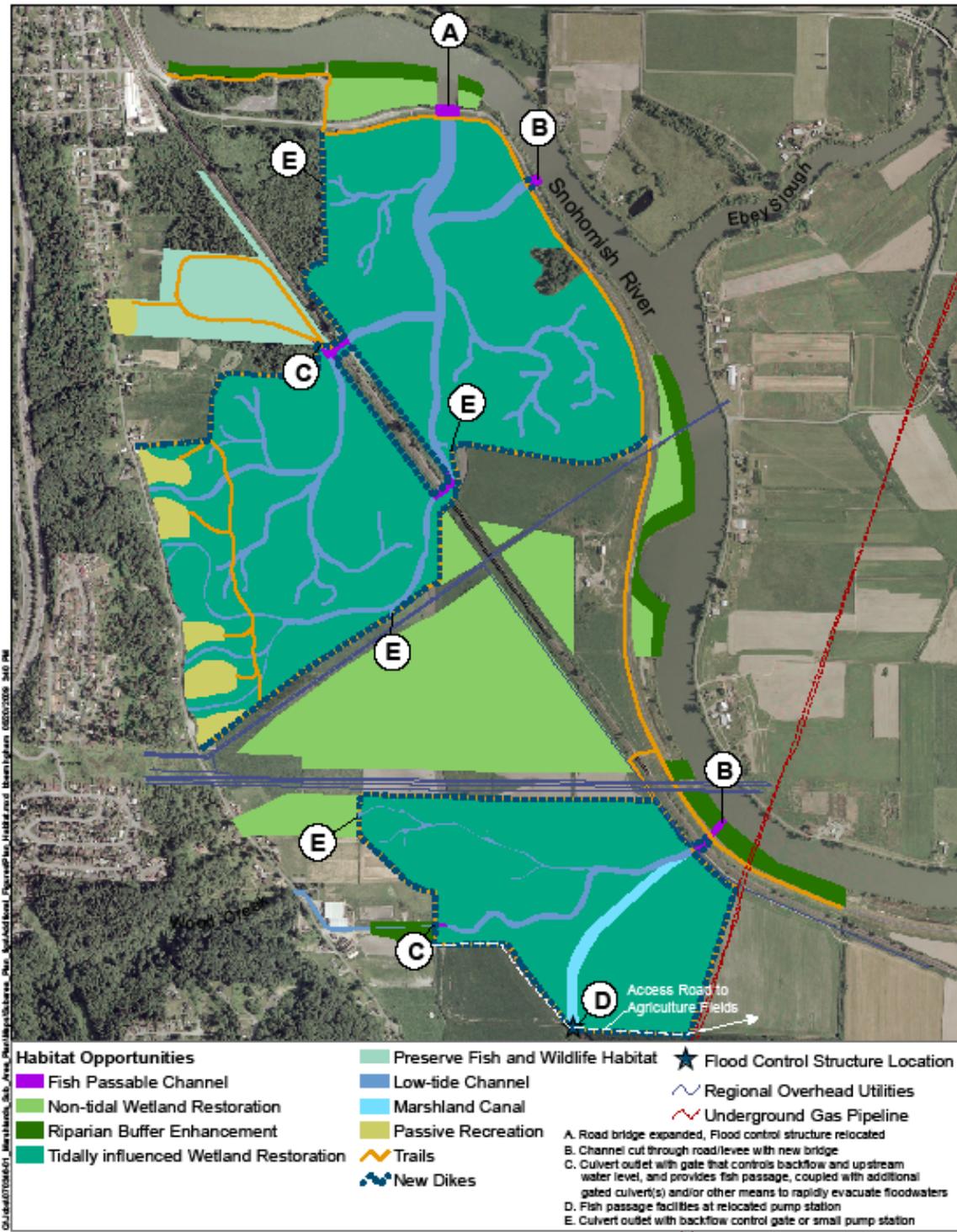
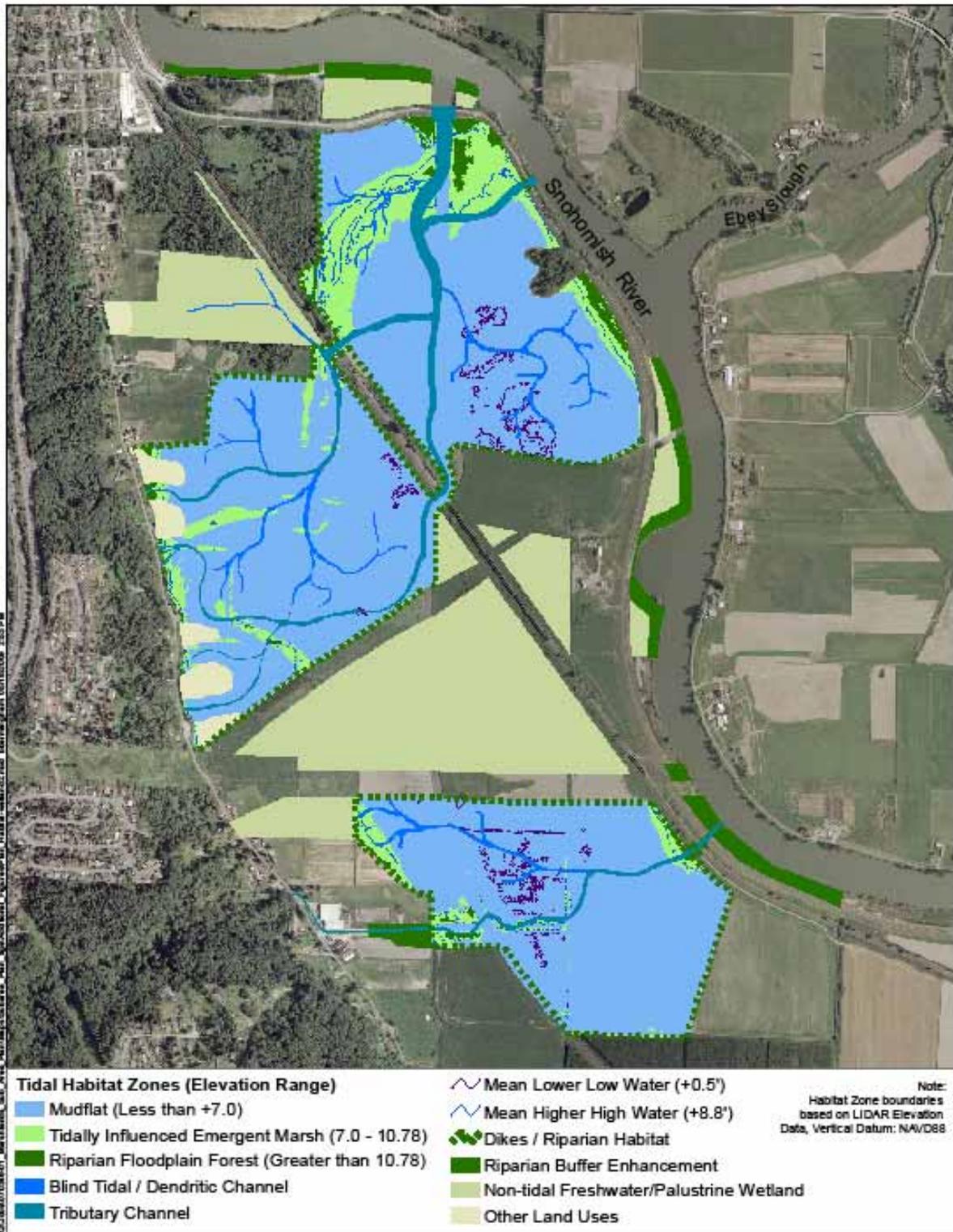


Figure 19
Marshland Subarea Habitat Plan
Draft Marshland Subarea Plan

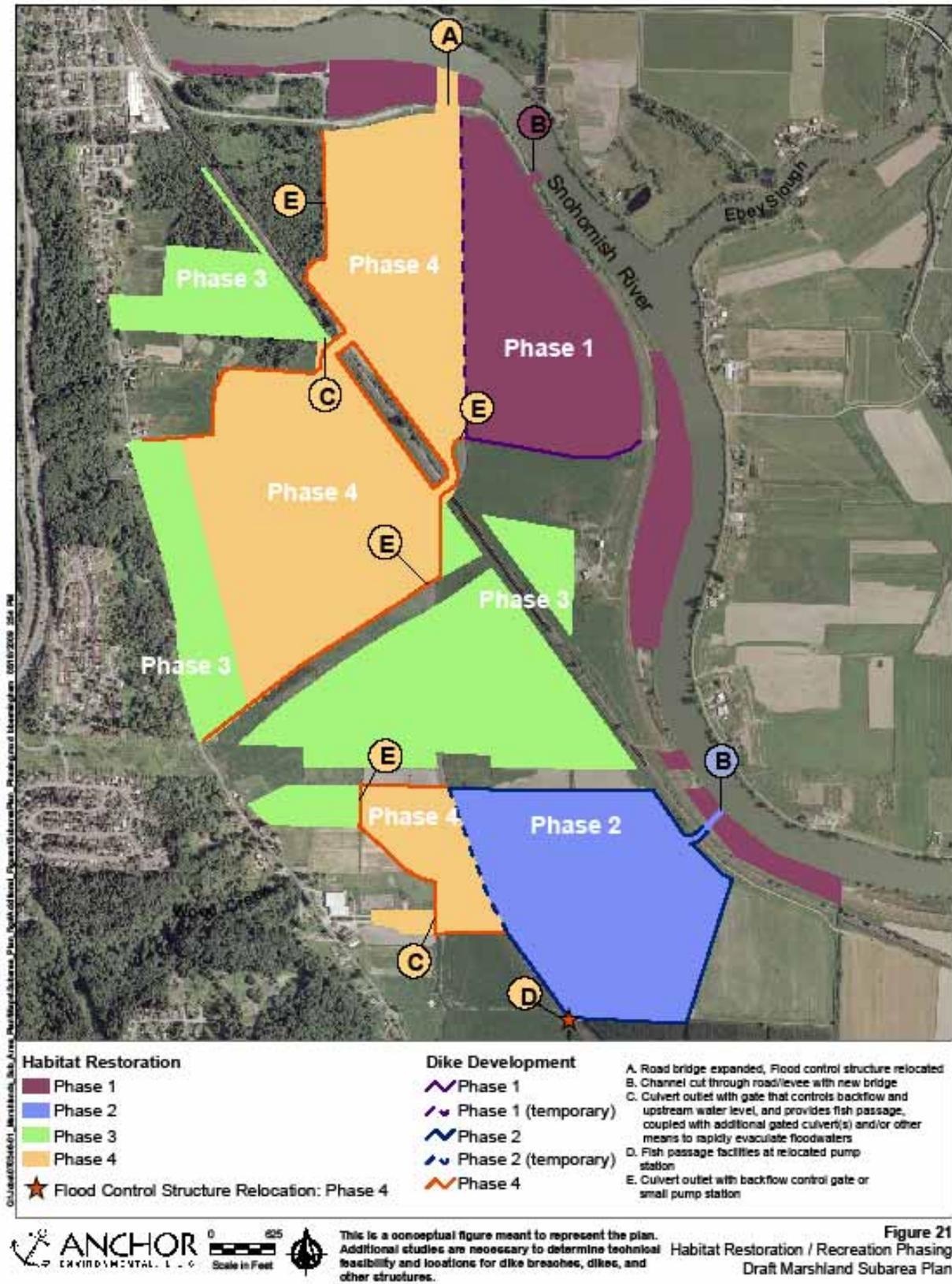
Figure 20: Tidally Influenced Wetland Based on Existing Topography



This is a conceptual figure meant to represent the plan. Additional studies are necessary to determine technical feasibility and locations for dike breaches, dikes, and other structures.

Figure 20
Subarea Plan - Tidally Influenced Wetland Zones based on Existing Topography
Draft Marshland Subarea Plan

Figure 21: Habitat Restoration / Recreation Phasing Plan



11. Other On-Going Restoration Projects in the Snohomish Estuary

Snohomish County, the City of Marysville, and the Tulalip Tribes are currently planning and/or implementing significant restoration projects in the estuary. As discussed in Section B, information regarding other jurisdictions is presented to provide the landscape perspective regarding the estuary.

a. The City of Marysville is completing a wetland mitigation project at their Ebey Slough Waterfront Park. The project includes removal of a creosote timber bulkhead regrading and cutting back the vertical bank to expand tidal habitat and wetland area; installation of a boat ramp, floating docks, restrooms, picnic areas, and parking, and construction of a stormwater management system. The project was designed to maximize the gain in habitat as measured by the THM. Prior to construction, the site scored 9.1 IVA points per acre for Chinook salmon and 13.3 IVA points per acre for coho and bull trout. One year after construction, the site is expected to score 27.9 IVA points per acre for both species; and 10 years after construction, the site is expected to score 57.6 IVA points per acre for both species. The current 0.32 acres of littoral habitat is being expanded to 0.47 acres, so after 10 years, the total function is expected to be 27.1 IVA acre-points.

(Pentec Environmental, Wetland Mitigation Plan Ebey Slough Waterfront Park City of Marysville, Washington. August 23, 2002.)

b. The Tulalip Tribes is planning the Qwuloolt Estuary project, a proposed dike breach along Ebey Slough at the mouth of Allen Creek (Salmon Overlay Restoration site 5 on Figure 4.16). The Tribes has been purchasing property up to the 500-year flood elevation (10 feet NGVD), and has currently acquired about 334 acres. Additional acquisition and funding are needed prior to construction. Planning is underway, and construction could begin in 2006 if additional funds are obtained. An application was recently submitted for SRF Board funding for design work. The Salmon Overlay assumed the area restored to tidal action would be approximately 354.5 acres after removing the estimated setback levee footprint. The design being pursued would limit levee construction, so restored acreage may be higher. The Salmon Overlay estimated a gain of 8,811 to 22,876 IVA acre-points would result from this project.

Funding for the restoration started with about \$2.5 million that businesses contributed for wastes that had been placed in the Tulalip landfill, a past federal Environmental Protection Agency Superfund site. Approximately \$3 million in grants was leveraged with those funds. The final cost of the project is not currently known.

(Salmon Recovery Funding Board Fifth Round 2004 Grant Cycle, Snohomish RiverBasin (WRIA 7) Snohomish Lead Entity, Scored Project List, May 10, 2004. Snohomish Basin Salmon Recovery Forum. 2004. Draft Snohomish River Basin Salmon Recovery Plan. July 2004. Snohomish County Surface Water Management Division. Everett, WA. Emails from Mac McKinsey, Tulalip Tribes, 2/11/2004 and 2/12/2004. Email from Stephanie Kaknes 2/6/2004.)

c. Snohomish County has purchased a large portion of central Smith Island for tidal restoration (Salmon Overlay site 3 on Figure 4.16). The County currently owns about 280 acres east of I-5

along Union Slough. A large area of the site fronts on Union Slough, and the site contains several large isolated channels.

The Salmon Overlay assumed that dikes would be required along I-5 and along the southern boundary, and that approximately 484 acres of new tidal habitat would be created. The project was estimated to result in a gain of approximately 26,217 IVA acre-points.

The County recently submitted an application for SRF Board funding for additional property acquisition. A restoration plan is being developed.

(Salmon Recovery Funding Board Fifth Round 2004 Grant Cycle, Snohomish River Basin (WRIA 7) Snohomish Lead Entity, Scored Project List, May 10, 2004. Snohomish Basin Salmon Recovery Forum. 2004. Draft Snohomish River Basin Salmon Recovery Plan. July 2004. Snohomish County Surface Water Management Division. Everett, WA.)

d. Washington Department of Fish and Wildlife (WDFW) owns the northern portion of South Spencer Island (Salmon Overlay Restoration Site 4). The area is currently being managed as a non-tidal wetland for waterfowl. However, the dikes are failing so WDFW and Snohomish County are considering adding two large dike breaches at the northern end of the island. The project has a very low estimated cost (\$100,000) compared to other projects in the estuary. Snohomish County previously breached dikes just south of this site.

The Salmon Overlay estimated the project would include 297 new acres of tidal habitat and a gain of approximately 30,288 IVA acre-points.

(Salmon Recovery Funding Board Fifth Round 2004 Grant Cycle, Snohomish River Basin (WRIA 7) Snohomish Lead Entity, Scored Project List, May 10, 2004. Snohomish Basin Salmon Recovery Forum. 2004. Draft Snohomish River Basin Salmon Recovery Plan. July 2004. Snohomish County Surface Water Management Division. Everett, WA.)

e. The Port of Everett purchased the Biringer Farm property on North Spencer Island as a potential mitigation site (Salmon Overlay site 2). This site is currently farmed. A conceptual restoration plan has been developed that takes advantage of remnants of natural sloughs on the property and leaves a small piece of the property in its existing state as a forested wetland. The project will require dikes along I-5. The project is in the Port's draft 2005 - 2009 Capital Improvement Program (CIP), which is expected to be adopted in October 2004. The draft CIP calls for planning and permitting to begin in 2005, with construction to occur in 2007. (Telephone conversations with Graham Anderson, Port of Everett and Jon Houghton, Pentec Environmental.)

The Salmon Overlay estimated that approximately 340 acres of new tidal habitat would be created, resulting in a gain of approximately 20,613 IVA acre-points.

f. Snohomish County developed a restoration plan for Diking District 6 property located along Ebey Slough (Salmon Overlay Restoration site 20). PSE's power lines were rebuilt in 2009 to be compatible with future restoration actions. The Salmon Overlay estimated that approximately 225 acres of new tidal habitat would be created, with a gain of approximately 11,804 IVA acre-

points. (Snohomish Basin Salmon Recovery Forum. 2004. Draft Snohomish River Basin Salmon Recovery Plan. July 2004. Snohomish County Surface Water Management Division. Everett, WA.)

g. Snohomish County's designated Marshland Restoration Site is owned by Snohomish County Public Works and the Marshland Flood Control District, and includes the area between the existing set-back dike and the Snohomish River, from the current Everett city limits upstream approximately two miles to the point where the set-back dike re-joins the dike on the river bank. The 34-acre site was developed in association with the Lowell-Snohomish River Road and Marshland Dike Relocation project, and provides compensatory mitigation for this project. The County has also completed compensatory mitigation for a number of other Public Works projects at the site, and will continue to use this area for compensatory mitigation projects in the future. *(Rev 3/17/2011)*

**12. Appendix - Complete Text of Applicable Regulations
Regulations in SMP Section 3.9 - pages 3-31 to 3-40**

11. As existing shoreline properties are redeveloped, impervious surfaces not needed for current or planned uses shall be removed and shoreline buffers shall be enhanced and/or/restored to the buffer width required by the SMP, except as necessary to accommodate access to the water necessary for the operation of water-dependent and water-related uses and/or public access. The Planning Director/Hearing Examiner shall have the authority to require redesign of the site and structures to minimize impacts to existing aquatic and buffer vegetation and to provide for buffer enhancement.

20. When restoring and enhancing buffers along the Snohomish River and its estuary, overhanging vegetation shall be provided along dikes and shoreline stabilization structures when feasible.

22A. Minimum 200 foot buffers shall be required adjacent to areas designated Aquatic Conservancy (SO AUs 2.21, 2.28, 2.30, 2.31, 2.32, 2.41, 2.44) and SO AU 3.05 on Smith Island north of 12th St. NE and on North Spencer Island (see Figure 3.9-1). A function assessment must be completed for all projects to demonstrate that these buffers result in no net loss of wetland or stream function. A wider buffer will be required when necessary to protect wetland and stream ecological functions. The buffers may be reduced in accordance with PDI 01-005 where there has been prior substantial legal alteration to the buffer and when the project applicant: (1) completes an approved function assessment, and (2) prepares an approved habitat management plan that includes buffer enhancement that would improve the functional performance of the buffer and the associated critical area. In no case shall buffers be reduced below 100 feet, except:

- When a significant action that restores salmonid rearing habitat is incorporated into the proposal, including actions such as reconnection of a blind tidal channel, a dike breach, or removal of fill to create tidal marsh area.
- Public access improvements such as trails and interpretive facilities may be included in portions of the buffer when the biological assessment and habitat management plan (if required) demonstrate no significant adverse impacts or that significant adverse impacts are mitigated.
- Buffers may be reduced to provide a reasonable use of a property as specified in EMC 19.37.050.D.
- Expansion of existing facilities such as SR529 and I-5 may be allowed when mitigation is provided for buffer impacts.

The City shall ask the appropriate resource agencies to review and comment on the function assessment and management plan.

22B. Palustrine wetlands on Smith Island north of 12th Street, on North Spencer Island, and on the city-owned property southwest of Weyco Island shall be categorized per Figure 3.9-2 (based upon SEWIP Wildlife Function). Category 1 wetlands shall have a minimum buffer of 200 feet. Category 2 wetlands shall have a minimum buffer of 100 feet. Category 3 wetlands shall have a minimum buffer of 50 feet. A function assessment must be completed for all projects to demonstrate that these buffers result in no net loss of wetland and stream function. A wider buffer will be required when necessary to protect wetland and stream functions. The buffers may be reduced in accordance with PDI 01-005 where there has been prior substantial legal alteration to the buffer and when the project applicant: (1) completes an approved function assessment, and (2) prepares an approved habitat management plan that includes buffer enhancement that would improve the functional performance of the buffer and associated critical area. In no case shall the buffers be reduced by more than 50%, except:

- When a significant action that restores salmonid rearing habitat is incorporated into the proposal, including actions such as reconnection of a blind tidal channel, a dike breach, or removal of fill to create tidal marsh area.
- Public access improvements such as trails and interpretive facilities may be included in portions of the buffer when the biological assessment and habitat management plan (if required) demonstrate no significant adverse impacts or that significant adverse impacts are mitigated.
- Buffers may be reduced to provide a reasonable use of a property as specified in EMC 19.37.050.D.

Expansion of existing facilities such as SR529 and I-5 may be allowed when mitigation is provided for buffer impacts.

The City shall ask the appropriate resource agencies to review and comment on the function assessment and management plan.

25. Buffers shall not be reduced below that required by EMC 19.37.100.A. for the Urban Conservancy designated wetlands in the Marshland area, except when the proposal includes significant actions that would restore salmonid rearing functions, such as removing dikes, improving channel connections, and removing fill to create tidal marsh, and except where existing improvements such as the railroad effectively limit the buffers in some areas.

26. Stormwater facilities are prohibited in Category 1 stream and wetland buffers. In lower rated wetlands and streams, stormwater management facilities, are permitted only within the outer twenty-five percent (25%) of the buffer, provided that:

- i. The buffer area has been previously substantially and legally altered and is degraded as defined by PDI 01-005;
- ii. Native vegetation and soils at the site should be protected and low impact development techniques should be used to promote infiltration of stormwater at the source. Stormwater facilities shall be integrated into the wetland buffer as a natural drainage system. The slopes and all areas that are disturbed shall be planted with native vegetation consistent with a buffer enhancement/mitigation plan. Above ground concrete walls and structures are not permitted. Below grade structures may be permitted only if it can be shown to the satisfaction of the planning director that the use of such materials fits with the natural design of the proposed facility and does not interfere with wildlife passages or adversely impact biological functions of the buffer or the adjacent critical area.
- iii. The facilities must include a buffer enhancement and management plan that would improve the functional performance of the buffer and the stream or wetland.
- iv. The location of such facilities will result in no net loss of wetland ecological functions.

For Category II, III, and IV wetlands and streams, the Planning Director may grant an exception to the outer 25% limitation when the applicant demonstrates that the project would significantly increase wetland or stream function.

33. For all mitigation proposals incorporating buffer enhancement, a 5-year Set-Aside shall be required to cover the costs of monitoring, maintenance, and contingencies, including 50 percent of the cost of the plantings. The applicant's biologist shall submit a letter to the City upon installation of the buffer enhancement. Monitoring reports shall be submitted at the end of years 1, 3, and 5 following installation, unless more frequent reports are required in the approval. Contingences must be implemented based upon the findings of the monitoring. The City may release the Set-Aside sooner than 5 years if the enhancement is determined by the City to be successful.

35.A.4. Out-of-Kind Compensation.

- Development impacts to tidal or tidally influenced habitats shall not be compensated for with palustrine wetland enhancement, restoration, or creation.
- Development impacts to palustrine wetland habitats may be compensated for with tidal habitat restoration or creation on an acre-for-acre basis. If nontidal mitigation is proposed for loss of nontidal palustrine wetlands in the SEWIP planning area, it should be reviewed to ensure that opportunities to recover tidal function would not be foreclosed. To replace palustrine wetland functions with palustrine wetland functions, the original SEWIP process and vegetated wetland model applies (City of Everett et al. 1997).

Regulation in SMP Section 5.5 Commercial Development - page 5-26

2. Nonwater-oriented commercial uses shall only be permitted within 200 feet of the ordinary high water mark when they provide substantial public access and they provide ecological restoration, if appropriate and feasible, and when at least one of the following criteria is met:

- a. The site is physically separated from the shoreline by another property, public right-of-way, or significant environmentally sensitive area.
- b. The use is part of a mixed-use project or area that includes water-dependent uses.
- c. *The site is upriver from the SR 529 bridge, or is located along Union or Steamboat Sloughs.*

Water-dependent and water-related commercial uses shall be prohibited where they would require new dredging, fill, piers, or other significant modifications in areas designated Aquatic Conservancy, or in the aquatic area west of Smith Island (AU 3.05).

Regulation in SMP Section 5.7 Industry Pages 5-31 - 33

1. The Shoreline rules clearly provide for a priority of shoreline uses with the highest priority given to environmental restoration and water dependent and water related uses (see WAC 173.26.200 (2)(d) Preferred uses, 173.26.240 (3)(f) Shoreline Use Standards – Industry, and 173.26.250 (3)(c) Shorelines of state-wide significance - Priority uses).

b. Urban Industrial and Urban Mixed Use Industrial shoreline areas along the main channel of the Snohomish River upriver from the SR 529 bridge are also located adjacent to the federally maintained navigation channel, and may be commercially viable. However, these areas are to some degree constrained due to the restrictions of the SR 529 bridge and also the presence of significant environmental features along certain sections of the Snohomish River (see the SEWIP resources inventory and the WDFW Priority Habitats map).

In these areas, nonwater-dependent and nonwater-related uses shall be permitted within 200 feet of the ordinary high water mark provided such uses provide substantial public access and public enjoyment of the shoreline. Water-dependent and water-related uses shall be prohibited where they would require new dredging, fill, piers, or other significant modifications in areas designated Aquatic Conservancy. All nonwater-dependent and nonwater-related uses shall preserve and enhance existing native shoreline vegetation per the requirements of EMC 19.37 and shall provide environmental restoration, when feasible.

c. The Urban Mixed Use Industrial Properties along Union and Steamboat Sloughs are not located adjacent to a federally maintained navigation channel.

In these areas, nonwater-dependent and nonwater-related uses shall be permitted within 200 feet of the ordinary high water mark provided such uses provide substantial public access and public enjoyment of the shoreline. Water-dependent and water-related uses shall be prohibited where they would require new dredging, fill, piers, or other significant modifications in areas designated Aquatic Conservancy, or in the aquatic area west of Smith Island (AU 3.05). All nonwater-dependent and nonwater-related uses shall preserve and enhance existing native shoreline vegetation per the requirements of the SMP and shall provide environmental restoration, when feasible.

Regulations in SMP Section 6 Shoreline Modification Activities page 6-9

13. Many of the 2001 SEWIP assessment units designated Aquatic Conservancy in Section 4 of this SMP as well as the aquatic area west of Smith Island (AU 3.05) received high rankings partially due to high quality marsh edge and/or riparian vegetation along dikes adjacent to the aquatic areas. Where structural flood hazard reduction measures are needed to protect development inland from these dikes, when feasible, new dikes or other stabilization structures shall be constructed inland of the existing dikes, and the high quality vegetation shall be preserved and enhanced along the existing dike.

Regulations in EMC 19.37

37.100 Standard wetland buffer width requirements (page 704-278)

A. Standard Buffer Width. The following minimum buffers of native vegetation shall apply to wetlands based upon the wetland category. Buffers shall be measured from the wetland boundary delineated as required by subsection 37.090A. If the designated buffer contains significant vegetation with drip lines extending beyond the edge of the buffer, the buffer shall be extended to five feet beyond the outside edge of the drip line. For purposes of this section, “significant vegetation” means a healthy evergreen tree, ten inches in diameter or greater, measured 4.5 feet above existing grade.

1. Category I: one hundred feet;
2. Category II: seventy-five feet;
3. Category III: fifty feet;
4. Category IV: twenty-five feet.

37.140 Standard stream buffer requirements for Category 1 streams (pages 704-282, 283)

A. Standard Buffer Width. It is the goal of this chapter to preserve streams and their buffers in a natural condition to the maximum extent possible. Buffers shall be measured from the top of the upper bank or, if that cannot be determined, from the ordinary high-water mark as surveyed in the field. In braided channels and alluvial fans, the top of the bank or ordinary high-water mark shall be determined so as to include the entire stream feature. Except for category IV streams, if the designated buffer contains significant vegetation with drip lines extending beyond the edge of the buffer, the buffer shall be extended to five feet beyond the outside edge of the drip line. For purposes of this section, significant vegetation means a healthy evergreen tree, ten inches in diameter or greater, measured 4.5 feet above existing grade. Except as otherwise provided by Section 37.050 of this chapter, the following minimum buffers of native vegetation shall apply to streams based upon category:

1. Category I Streams. Category I streams shall have a minimum buffer of one hundred feet on each side of the stream, except that properties under the jurisdiction of the shoreline master program which abut category I streams may have a minimum buffer of less than one hundred feet when shoreline public access improvements may otherwise be permitted or required during the shoreline permit review process; or when a water-dependent or water-related use which requires a lesser buffer standard is approved during the shoreline permit review process.

C. Standard Buffer Width Increase. The city shall require increased buffer widths as necessary to protect streams when the stream is particularly sensitive to disturbance, or the development poses unusual impacts and the increased buffer width is necessary to protect the environmentally sensitive areas described in this subsection. Circumstances which may require buffers beyond minimum requirements include, but are not limited to, the following:

1. The stream reach affected by the development proposal serves as critical fish habitat for spawning or rearing as determined by the city using information from resource agencies including, but not limited to, the Washington State Departments of Fisheries or Wildlife, U.S. Fish and Wildlife Service, and native tribes;
2. The stream or adjacent riparian corridor is used by species listed by the federal government or the state as endangered, threatened, rare, sensitive, or monitored, or provides critical or outstanding actual or potential habitat for those species, or has unusual nesting or resting sites such as heron rookeries or raptor nesting or lookout trees;
3. The land adjacent to the stream and its associated buffer is classified as a geologically hazardous or unstable area;

4. Increased buffer width is necessary to effectively include the riparian corridor of the stream;
5. A trail or utility corridor, as provided by Section 37.050, is proposed within the buffer;
6. A drainage or water quality improvement, approved by the city, is proposed within the buffer;
7. When the minimum buffer for a stream extends into an area with a slope of greater than twenty-five percent, the buffer shall be the greater of:
 - a. The minimum buffer for that particular stream; or
 - b. Twenty-five feet beyond the point where the slope becomes twenty-five percent or less.

D. **Standard Stream Buffer Width Reduction.** The planning director may, using Review Process II.C, reduce the standard stream buffer width only when there has previously been substantial legal alteration of the stream and/or buffer on the subject lot or adjoining lots. The planning director shall require buffer width averaging rather than allowing a buffer width reduction except when the proposal includes a stream and buffer enhancement plan that improves the functional values of the buffer and the stream. An enhanced buffer shall not result in more than a fifty percent reduction in buffer width, and the reduced buffer shall not be less than the minimum dimension allowed by buffer width averaging.

E. **Riparian Wetland.** Any stream adjoined by a riparian wetland shall have the buffer which applies to the wetland, unless the stream buffer requirement is more protective, in which case the stream buffer requirement shall apply. Riparian wetland and associated stream buffers shall not be reduced except as provided in Section 37.050 of this chapter.

F. **Standard Buffer Width Averaging.** The city may allow buffer width averaging, provided that the total area on the lot contained within the averaged buffer is not less than that required within the standard buffer. The city may require buffer width averaging in order to provide protection to a particular portion of a stream which is especially sensitive or to incorporate existing significant vegetative or habitat features into the buffer. Averaging shall not adversely impact the functions and values of the stream system. In either case, the adjusted minimum buffer width shall not be less than fifty percent of the standard buffer width or ten feet, whichever is greater.

Other Agency Requirements

All actions undertaken by public or private parties within waters of the state lying within the City of Everett that have a potential to affect fish, shellfish or their habitat require a Hydraulic Project Approval under the provisions of WAC 220-110. A requirement of this program, administered by WDFW is that there be no net loss of the productive capacity of these waters. In addition, any project in the waters of the US that would affect navigation (almost all in-water construction) or result in dredging or fill placement require permits from the Corps of Engineers under Section 10 of the Rivers and Harbors Act or Section 404 of the Clean Water Act. Any Corps permit decision must be determined, through consultation with NOAA Fisheries and the Fish and Wildlife service, to not jeopardize the continued existence of ESA listed species. Meeting this test also requires that there be no net loss of habitat area or function and, again, in practice requires that measures be taken to enhance local habitat function as part of conservation measures to ensure a project is not likely to adversely affect listed species.

III. Shoreline Environment Designations and Management Policies

A. Authority

The Washington State Shoreline Management Act of 1971 through WAC 173-16-040(4) requires that a land use categorization system for shoreline areas be developed by the local governments in preparation of their master programs. The amendments to Chapter 173-26 WAC provide further guidance in the designation of shoreline use environments, which have been incorporated herein. The Shoreline Use Environment Designation System is intended to provide a uniform basis for applying use activity policies and use regulations within distinctly different shoreline areas. This is accomplished by basing the environmental designations for any specific area on the following:

The existing development pattern, the biophysical capabilities and limitations of the site, and the goals and aspirations of the community.

In addition, for Shorelines of Statewide Significance, the master program designations must give preference to uses which favor public and long-range goals. The Act requires “optimum implementation” of the policy of the Act to satisfy the state-wide interest in these areas.

The Shoreline Management Act requires that when developing Shoreline Master Programs for shorelines of statewide significance, local governments shall give preference to uses in the following order of preference which

1. Recognize and protect the state-wide interest over local interest;
2. Preserve the natural character of the shoreline;
3. Result in long term over short term benefit;
4. Protect the resources and ecology of the shoreline;
5. Increase public access to publicly owned areas of the shorelines;
6. Increase recreational opportunities for the public in the shoreline;
7. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

The shoreline use environment classification system is intended to work in conjunction with local comprehensive planning and zoning existing along Everett's shoreline. The environmental designations are aimed at more accurately reflecting the existing intensity of development and identifying any bio-physical capabilities, potentials, and limitations along our shoreline, within the context of Everett's social values and economic characteristics. Consequently, the type of activity which occurs in a specific use environment must be designed and located so that the objectives of the use environment, as stated in the SMP, are achieved.

B. Classification Methodology

Shorelines in Everett and Everett’s Urban Growth Area consist of the water bodies and shorelands associated with

- Port Gardner Bay,
- the Snohomish River and associated sloughs (Union Slough and Steamboat Slough),

- Silver Lake,
- Lake Stickney,
- Lake Chaplain Reservoir, and portions of Woods Creek and the Sultan River near the Reservoir.

Shorelines of Statewide Significance in Everett include

- Possession Sound/Port Gardner Bay lying seaward from the line of extreme low tide,
- the Snohomish River, including the associated sloughs, and
- the shorelands associated with the Snohomish River and sloughs, including the portion of Jetty Island within 200 feet of the ordinary high water mark on the river (east) side.

As part of the update to the Shoreline Master Plan, a comprehensive inventory was completed that identifies the resources of Everett’s shoreline areas. See Section 1 for more information regarding the inventory.

Over a two-year period, the Shoreline Committee was provided the inventory information, existing regulations, and draft guidelines. Based upon this information, and the policies and guidelines in RCW 90.58, WAC 173-16, the draft Guidelines (WAC 173-26), and public comment, the Shoreline Committee developed “vision statements” and shoreline designations for Everett’s shoreline areas. Planning Commission also held public hearings, heard new information on the Snohomish Estuary Wetland Integration Plan (SEWIP) Salmon Overlay, reviewed the Shoreline Master Program Guidelines adopted by the Department of Ecology on November 29, 2000, and made revisions to the Shoreline Committee’s designations. The designations include:

- Urban Deep Water Port
- Urban Maritime
- Urban Industrial
- Urban Mixed-Use Industrial
- Urban Multi-Use
- Shoreline Residential
- Urban Conservancy - Recreation
- Urban Conservancy
- Municipal – Water Quality
- Municipal – Watershed
- Aquatic
- Aquatic Conservancy

Except for those areas associated with Lake Chaplain Reservoir, most of the shorelines in Everett have been highly modified over the last 100 years. Given Everett's urban context documented by the comprehensive inventory, and Everett’s inclusion within a Growth Management Act urban growth area, it was concluded that a large segment of Everett's shoreline would fit the “High-intensity” designation of the draft Shoreline Guidelines. To recognize the varying levels of existing development, the potential for influencing future development, and the diverse biological, ecological and economic values of the shorelines, the following more specific “high-

intensity” or urban designations were developed – Urban Deep Water Port, Urban Maritime, Urban Industrial, Urban Mixed-Use Industrial, and Urban Multi-Use.

A new “Municipal Watershed” shoreline use environment designation was established for the City’s Lake Chaplain Reservoir watershed that is within the jurisdiction of the SMP and for the portions of the Sultan River and Woods Creek within the City’s jurisdiction.

A new “Municipal Water Quality” shoreline use environment designation was established for the City’s Water Pollution Control Facility.

The “Aquatic” shoreline use environment designation is applied to certain water areas and to their underlying lands. The “Aquatic Conservancy” shoreline use environment designation was applied to areas that scored highly for salmonid habitat in the 2001 Snohomish Estuary Wetland Integration Plan Salmon Overlay. The sites included all assessment units that ranked in the top quartile of sites within the urban growth boundary²⁴, and all sites except the Maulsby Mudflats and AU 5.03 that ranked in the top quartile within each ecological management unit (EMU) or EMU pair²⁵. In addition, all of the nearshore areas between the Mukilteo tank farm site and the Port of Everett’s south terminal were designated Aquatic Conservancy.

The “Shoreline Residential” designation applies to the existing residential areas abutting Lake Stickney and Silver Lake, as well as the residential properties above Port Gardner Bay and Maulsby Swamp.

The “Urban Conservancy” designation encompasses protection and restoration of important ecological resources, as well as provision of public access. The 1997 Snohomish Estuary Wetland Integration Plan inventory was the primary basis for designating sites Urban Conservancy. Most of the non-tidal sites that ranked in the top wetland group for Water Quality and Wildlife Attributes²⁶ were designated Urban Conservancy. In addition, the Urban Conservancy designation was applied to wetlands above Port Gardner Bay, a wetland in the floodplain in the Delta Yard, the “Spane” wetland mitigation site in the Marshland area, the wetland area along the Snohomish River east of Rotary Park, and two planned tidal restoration sites (the Port of Everett’s Union Slough property and the remnant tidal channel at Langus Riverfront Park). The Urban Conservancy – Recreation designation encompasses the protection and restoration of ecological resources and the provision of public access, but also provides for active recreation facilities.

The Figures showing the shoreline designations were adopted as part of the Zoning Code (EMC 19.33D). The remainder of this Section provides details for each environment, including the purpose of the environment, classification criteria, management policies, and the areas designated. In the event of a mapping error, the City will rely upon common boundary descriptions and the criteria contained in chapter 173-22 WAC pertaining to shorelands and wetlands, as amended, rather than the incorrect or outdated map. Any areas within shoreline jurisdiction that are not mapped and/or designated are automatically assigned the category of the

²⁴ Figure 4.11 in the 2001 Snohomish Estuary Wetland Integration Plan Salmon Overlay.

²⁵ Figure 4.10 in the 2001 Snohomish Estuary Wetland Integration Plan Salmon Overlay.

²⁶ Figure 4.3 in the 1997 Snohomish Estuary Wetland Integration Plan.

contiguous shoreline environment designation until the shoreline can be re-designated through a master program amendment. In addition, any property shown in shoreline jurisdiction that does not meet the criteria for shoreline jurisdiction (e.g., is more than 200 feet from the ordinary high water mark or floodway, is no longer in floodplain jurisdiction as documented by a Letter of Map Revision from FEMA, and does not contain associated wetlands) shall not be subject to the requirements of this Shoreline Master Program. Note that the actual location of the ordinary high water mark, flood plain boundaries, and wetland boundaries must be determined at the time a development is proposed.

Note: The maps provided in EMC 19.33.D. may change after FEMA’s analysis of Everett’s floodplain boundaries and regulations. (Everett has the option of including “floodplains” in shoreline jurisdiction. However, shoreline jurisdiction extends to 200 feet beyond the “floodway” boundary. If FEMA changes Everett’s boundaries, shoreline jurisdiction may change.)

C. Urban Deep Water Port

1. Purpose

To provide areas for large scale water-dependent industries, port facilities, and supporting services that require proximity to navigable waters that can accommodate deep draft ocean-going vessels, and to ensure optimum use of shorelines that are presently industrial in nature while protecting and restoring ecological functions.

2. Classification Criteria

- a. Areas proximate to navigable channels approximately 25’ MLLW or greater in depth, with arterial roadway and/or rail services, and with sufficient space to support water-dependent or water-related industrial activities.
- b. Areas currently developed with water-dependent and water-related industrial use, military use, and support facilities.

3. Area Designated

That area beginning at a line perpendicular to the shoreline 200 feet northeast of Pigeon Creek and continuing north to the north boundary of the US Navy base. The waterward boundary is the outer harbor line/pierhead line. The landward boundary is a line 200 feet from the ordinary high water mark.

Vision Statement. This area shall be reserved for water-dependent marine commerce and heavy industry, military use, and supporting activities. Because of the nature of these activities, public access may be provided elsewhere, consistent with the plan for creating a comprehensive system of publicly accessible sites and trails.

4. Management Policies

Policy 3.10.1 Use of this land should be for port-related water-dependent uses, water-dependent and water-related industrial uses, water-dependent military use, and accessory supporting facilities and services. New nonwater-dependent/nonwater-related use activities that

provide direct support for the water-dependent uses should only be permitted within 200 feet of the ordinary high water mark when the applicant shows the use is an incidental part of the business, such as an office use, and the location is necessary for proper operation of the business.

Policy 3.10.2 Encourage expansions and re-development within areas that are already developed. Nonwater-dependent uses should be encouraged to expand outside shoreline jurisdiction when feasible. When expansions of nonwater-dependent uses occur in shoreline jurisdiction, public access and restoration of the shoreline shall be provided where feasible.

Policy 3.10.3 Encourage landscaping and screening of existing activities which have the potential for adversely affecting nearby properties. Landscaping and screening should be required for new activities which have the potential for adversely affecting nearby properties.

Policy 3.10.4 Require uses to limit and screen lighting to minimize impacts on views and nearby single family neighborhoods.

Policy 3.10.5 Encourage continued efforts by public and private industries to improve the quality of air and water.

D. Urban Maritime

1. Purpose

To provide an area for the intense development of maritime activities such as marinas, boating and fishing businesses, and supporting heavy commercial and industrial uses, along with a wide mix of compatible water-oriented commercial and recreational uses, and public access while protecting and restoring ecological functions.

2. Classification Criteria

- a. Areas used for intensive water-oriented port activity, including commercial, industrial and recreational uses, but excluding those areas used primarily for deep-draft, ocean going vessels.
- b. Areas that have adequate utilities and access to support intensive urban shoreline development.

3. Area Designated

The area extending from the north property line of the US Naval Station Everett to the south property line of Parcels 0729 054 001 00 (Jeld-Wen), 0729 051 004 00 (Jeld-Wen) and 0729 051 012 00 (Sterling Asphalt/CSR). The west boundary is the East Government Pierhead Line/Harbor Line and the landward boundary is located 200 feet from the ordinary high water mark, except where the area abuts Maulsby Swamp where the east boundary is the east edge of the Burlington Northern right-of-way.

Vision Statements.

Existing Marina Area: This area shall remain a working waterfront, with priority given to an intensive mix of maritime uses. A wide mix of compatible water-oriented commercial uses, public access, recreational uses, and supporting activities will also be encouraged.

North of Boat Launch to South End of Sterling Asphalt/CSR Property: Because of its proximity to existing public services, this area should be reserved for future urban development. A wide mix of compatible water-dependent industrial, commercial, and recreational uses will also be encouraged here.

4. Management Policies

Policy 3.11.1 Give priority to maritime uses and services, and encourage a mix of compatible water-dependent and associated water-related industrial and recreational uses, and water-oriented commercial uses.

Policy 3.11.2 Encourage public access, both physical and visual, and develop public attractions that provide the opportunity for people to enjoy the shoreline.

Policy 3.11.3 Encourage expansions and re-development within already developed areas.

Policy 3.11.4 Redevelopment of the mud flats area shall be allowed only for water-dependent industrial, commercial, or recreational activities, and when substantial environmental enhancement and restoration of ecological functions is included as part of the development process.

Policy 3.11.5 Encourage landscaping and screening of existing activities which have the potential for adversely affecting nearby properties. Require landscaping and screening of new activities which have the potential for adversely affecting nearby properties.

Policy 3.11.6 Encourage uses to limit and screen lighting to minimize impacts on views and nearby single family neighborhoods.

Policy 3.11.7 Encourage continued efforts by public and private industries to improve the quality of air and water.

E. Urban Maritime Interim

1. Purpose

To provide an interim designation for a shoreline area that is characterized by high natural and economic resources of statewide importance that will allow the City and the Port, in cooperation with Ecology, interested agencies and members of the public, to conduct special area planning for the Maulsby Mudflats. This planning will commence within six months of the approval of the City’s updated SMP, with the goal of completing the subarea plan in 18 months.

2. Area Designated – Urban Maritime Interim

Salmon Overlay assessment unit (AU) 5.08 known as Maulsby Mudflats.

3. Management Policies

In addition to those policies that apply to the Urban Maritime Designation the following policies shall apply:

Policy 3.12.1 The subarea planning process will result in a subarea plan and/or shoreline use regulations that will be incorporated into the City’s and Port’s comprehensive plans, including the Shoreline Master Program and zoning code as applicable.

Policy 3.12.2 While the plan is being prepared, the City and Port of Everett will not take actions that will limit the choice of reasonable alternatives in the planning for, or that will result in any significant impact to shoreline resources in, the Maulsby Mudflat (AU 5.08). The City will review applications for development by applicants in AU 5.08 to assure that such development would not limit the choice of reasonable alternatives that are being considered in the subarea planning process or that will result in any significant impact to shoreline resources in the planning area.

Policy 3.12.3 The State of Washington may exercise independent authority including but not limited to, the Coastal Zone Management Act and Section 401 of the Clean Water Act, consistent with the authority granted thereby, either alone or in concert with action pursuant to the Shoreline Management Act to assure that any development proposed within the study area is consistent with the purpose of this interim environment designation and the policy of the Shoreline Management Act including provisions related to Shorelines of Statewide Significance.

4. Contents of Subarea Plan

The plan will address the following, applying the data and analysis of SEWIP and the SEWIP Salmon Overlay, consideration of best available science and cumulative impact analysis, water-dependent uses, and other applicable GMA/SMP elements:

- a. specific areas to be preserved (or whose functions cannot be impaired or replaced), if any;
- b. types of uses that could be appropriate or would not be appropriate, in portions or all of the Maulsby Mudflat area;
- c. opportunities and priorities for restoring or enhancing ecological functions in the Maulsby Mudflat area and the Maulsby Swamp, or functionally connected habitats in the estuary, and cumulative benefits that could be achieved by a comprehensive approach to the navigational and ecological values in this harbor area;
- d. consistency with the Shoreline Management Act including Shorelines of Statewide significance criteria, the comprehensive plan, harbor area designations, and other applicable designations;
- e. the appropriate shoreline environment designation for the area, based on the above analysis, including evaluating whether a new designation is needed and whether the entire area should have the same designation;
- f. policies and use regulations in the SMP, critical area regulations, and other development regulations; and
- g. measures or methods to monitor implementation of the plan and the cumulative effects of any future development.

5. Integrated document

It is the intent to use the GMA/SEPA integration option to prepare a combined plan and non-project environmental document to assist in planning, public and agency review, and decision making, as encouraged by Ecology rules and policy.

F. Urban Industrial

1. Purpose

To provide areas for high intensity water-dependent and water-related industrial uses along navigation channels accessible to shallow draft vessels, and to ensure optimum use of shorelines that are presently industrial in nature while protecting and restoring ecological functions.

2. Classification Criteria

- a. Shorelines that front on navigable waters of varying depth and have varying levels of upland access.
- b. Areas highly modified by past industrial activities.

3. Area Designated

- a. The area south and west of the Snohomish River extending from the north boundary of the Urban Maritime Environment to the southernmost edge of the SR 2 right-of-way, except for the City-owned property located north of the I-5 crossing of the Snohomish River (parcel number 1629 053 002 00). The waterward boundary is the ordinary high water mark. The landward boundary is 200 feet from the ordinary high water mark or 200 feet from the floodway, whichever is further inland. (*Ordinance 3053-08, effective 12/24/09*)
- b. The area within 200 feet of the ordinary high water mark of Maulsby Swamp located west of the east line of the Burlington Northern right-of-way and north of the Urban Maritime environment.
- c. The M-2, Heavy Manufacturing and B-2, Community Business with contract zoned property within shoreline jurisdiction located in south Lowell near the River bend All M-2 zoned property within the floodplain and/or within 200 feet landward of the floodway or OHWM located west of the BNSF right-of-way. (*Ordinance 3053-08, effective 12/24/09*)

Vision Statement. This traditionally heavy manufacturing area should continue to be used for heavy industrial purposes. Lands adjacent to the river (within 200 feet of the shoreline) shall be reserved for water-dependent uses and water-related activities, while other lands within the area may be used for non-water-dependent uses. Public access may be provided where it does not conflict with safety and security (see Condition 2 on SMP page 3-20). When public access cannot be provided in this area, it will be provided elsewhere consistent with the plan for creating a comprehensive system of publicly accessible sites and trails.

Future SMP and Comprehensive Plan changes should consider allowing multiple family residential use in the area south of I-5.

4. Management Policies

Policy 3.13.1 For that portion of the area which is downriver of the SR 529 bridge, shorelands should be reserved for water-dependent and associated water-related heavy industrial and commercial uses, habitat preservation, and public access.

Policy 3.13.2 Urban Industrial shorelands which are upriver from the SR 529 bridge may be used for nonwater-dependent industrial, heavy commercial, and recreational uses, provided that public access, buffers and rehabilitation of ecological functions is provided along the river shoreline.

Policy 3.13.3 Encourage expansions and re-development within already developed areas.

Policy 3.13.4 Give priority to existing industries and those new industries which are dependent on a shoreline location.

Policy 3.13.5 Encourage landscaping and screening of existing and new activities which have the potential for adversely affecting nearby properties.

Policy 3.13.6 Encourage uses to limit and screen lighting to minimize impacts on views and nearby residential neighborhoods.

Policy 3.13.7 Encourage continued efforts by public and private industries to improve the quality of air and water.

G. Urban Mixed-Use Industrial

1. Purpose

To provide area for new commercial, industrial, and recreational activities which are dependent upon waterfront locations on navigable waters, or for non-water dependent uses on parcels not contiguous to the shoreline; and to provide for protection and restoration of suitable estuarine environments.

2. Classification Criteria

- a. Areas north of the main Snohomish River channel which are tidally connected to the estuary and/or within the 100-year floodplain.
- b. Areas north of the main Snohomish River channel with existing industrial and commercial uses.
- c. I-5 right-of-way on Smith and North Spencer Islands.

3. Area Designated

Smith and Spencer Islands: Those areas of Smith and North Spencer Islands located west of the I-5 city limits and north of the City-owned Langus Riverfront Park, but excluding the Port of Everett mitigation site that is designated Urban Conservancy. The waterward boundary is the ordinary high

water mark. The western boundary is the City’s Urban Growth Boundary. Exception: Properties located more than 200 feet landward from the OHWM and the floodway, that do not contain associated wetlands, and that are not in the floodplain are not in shoreline jurisdiction. (*Ordinance 3053-08, effective 12/24/09*)

Vision Statement. These islands contain significant opportunities for both economic development and environmental restoration. Areas that make the most sense based on scientific studies should be set aside for salmon habitat restoration and wetland mitigation. Lands adjacent to the Snohomish River should be reserved for a compatible mix of water-dependent industrial, commercial, and recreational uses.

4. Management Policies

Policy 3.14.1 For that portion of the area which is located along the main channel of the Snohomish River and downriver from the SR 529 bridge, shorelands should be reserved for water-dependent and water-related heavy industrial, commercial, and recreational uses; habitat preservation; and public access.

Policy 3.14.2 Shorelands which are located along the main channel of the Snohomish River upriver from the SR 529 bridge, or along Union or Steamboat Sloughs may be used for nonwater-dependent industrial and heavy commercial uses, and recreational uses, provided that such uses shall provide public access and buffers, and shall provide rehabilitation of ecological functions along the shoreline as applicable.

Policy 3.14.3 Nonwater-dependent uses should be allowed on properties that do not have frontage of the water’s edge. Such uses shall provide public access and environmental restoration, as applicable.

Policy 3.14.4 Based upon the Snohomish Estuary Wetland Integration Plan and other best available science, encourage projects that enhance habitat for endangered species, and return the estuary to a more natural state.

Policy 3.14.5 Encourage expansions and re-development within already developed areas.

Policy 3.14.6 Encourage landscaping and screening of existing activities which have the potential for adversely affecting nearby properties. Require landscaping and screening for new activities which have the potential for adversely affecting nearby properties.

Policy 3.14.7 Encourage uses to limit and screen lighting to minimize impacts on views.

Policy 3.14.8 Encourage continued efforts by public and private industries to improve the quality of air and water.

H. Urban Multi-Use

1. Purpose

To ensure optimum use of shorelines within urbanized areas by providing for water-oriented public and commercial activities, recreational and residential uses, and public access, and by managing development so that it enhances and maintains shorelines for a multiplicity of urban uses, while protecting and restoring ecological functions.

2. Classification Criteria

- a. Areas not contiguous to portions of the river containing the maintained navigation channel, and therefore not ideal for water-dependent or water-related industrial and commercial uses.
- b. Multiple family and commercially zoned properties located north and east of Silver Lake and abutting SR 527. In most cases the developable portions of these properties are separated from Silver Lake by SR 527.
- c. The portion of the Mukilteo Tank Farm site located within Everett City limits. This area is currently planned to be developed cooperatively with lands in the City of Mukilteo for a mixed-use development to include some combination of recreational use, pedestrian paths and promenades, and commercial uses.

3. Area Designated

- a. Former Mukilteo Tank Farm Site. This approximately 3 acre area is bounded on the west by the City limits. The waterward boundary is the ordinary high water mark. The southern boundary is 200 feet from the ordinary high water mark.

Vision Statement. The City of Everett shall redevelop its lands cooperatively and consistently with adjacent jurisdictions so that the entire site is an attractive and active waterfront with integrated commercial, transportation, and recreational components.

b. Lands Along the SR 527 Corridor Contiguous to Silver Lake.

- 1) The area to the north and east of the west right-of-way line of 19th Ave. SE within 200 feet of the ordinary high water mark of Silver Lake, from the east property line of parcel number 4943 005 001 00 to the edge of shoreline jurisdiction between Lake Heights Drive and 120th Street SE.
- 2) All land within 200 feet of the ordinary high water mark of the lily pond located north of 116th Street SE.
- 3) Emory’s Lakehouse Restaurant: The area included in parcel 3028 051 032 00. The western boundary is the ordinary high water mark.

Vision Statement. Development of commercial lands and multiple family zoned lands in this area should require high quality site development and building design standards, taking advantage of the view of Silver Lake, and should provide improvements to the pedestrian trail system surrounding the lake.

c. Lands located along the Snohomish River south of the SR 2 bridge and north of 36th Street: That area extending from the southernmost property line of the SR 2 right-of-way to the center line of the 36th Street right-of-way. The eastern boundary is the ordinary high water mark. The western boundary is 200 feet from the ordinary high water mark or 200 feet from the floodway, whichever is further inland. (*Ordinance 3053-08, effective 12/24/09*)

Vision Statement. This area shall be developed with high quality mixed-use development including multiple family residential, office park, light commercial and high quality public access on the site.

d. Tire Fire/Landfill. That area extending from the centerline of 36th Street to a buffer a minimum of 50 feet from Bigelow Creek and associated wetlands. For the northern 400 feet, the eastern boundary is the ordinary high water mark of the Snohomish River. For the remaining area, the eastern boundary is the west edge of the BNSF right-of-way or the west edge of any wetlands that extends west of the BNSF right-of-way, whichever is further inland. (edge of Urban Conservancy environment). The western boundary is 200 feet from the ordinary high water mark or 200 feet from the floodway, whichever is further inland. (Note that most of the tire fire/landfill site is outside of shoreline jurisdiction.) (*Ordinance 3053-08, effective 12/24/09*)

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

e. Developable Portion of Simpson Site. The area in the center of the Simpson site that is in or within 200 feet of the floodway or the OHWM and that is not buffer required by the SMP around the surrounding wetlands. (*Ordinance 3053-08, effective 12/24/09*)

Vision Statement. The vision for the 45-acre “development pad” on the 136-acre Simpson site is an attractive, master planned campus-like office park or high quality mixed use office/residential development. A possible use for this site could be the headquarters for a high quality high tech company. The remainder of the Simpson site will be for conservation and park purposes except for transportation and utility access. The riparian corridor along the river will be preserved with public access including a trail. The southern portion of the site should be open space and park use. A road connecting the River Road with the 41st interchange via the development pad may be located on the southern portion of the site.

4. Management Policies

Policy 3.15.1 Mukilteo Tank Farm Site. This site shall be planned and developed cooperatively as part of a water-oriented mixed-use development per the memorandum of understanding between the City of Everett, City of Mukilteo, Port of Everett, Department of Transportation Ferry System, and Sound Transit.

Policy 3.15.2 Silver Lake. Water-oriented uses, such as restaurants with views of the waterfront are encouraged in commercially zoned areas. However, nonwater-oriented commercial, and/or multiple-family residential uses should be allowed in this area, provided the development provides views to Silver Lake from and through the site. Public access should be provided along the entire shoreline with linkages from all new development to the shoreline trails.

Policy 3.15.3 Area south of Highway 2. Encourage high quality mixed-use development, including multiple family residential, office park, and light commercial uses. Water-oriented uses, such as restaurants with views of the waterfront are encouraged. However, non-water-oriented commercial, and/or multiple-family residential uses should be allowed in this area, provided the development provides views to the Snohomish River from and through the site. High quality public access should be provided-along the entire shoreline. Access shall be located so that it does not significantly impact habitat for endangered species.

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

Policy 3.15.5 Except as necessary to accommodate access to the water necessary for the operation of water-dependent and/or water-related uses, all uses shall provide buffers and rehabilitation of ecological functions along the shoreline, when the property fronts on the shoreline. Public access may be provided in portions of the buffer.

Policy 3.15.6 Extension of the existing trail system and connection to other public access improvements and park amenities shall be required as properties within this area are developed.

Policy 3.15.7 Land uses and activities that are incompatible with and discourage high quality waterfront redevelopment shall be prohibited.

Policy 3.15.8 Commercial and multiple family developments around Silver Lake shall be of a high quality design and shall take advantage of views of the lake.

Policy 3.15.9 Enhance public recreational activities at Silver Lake by providing public facilities such as picnic areas, habitat settings, fishing and boating docks that supplement park activities at Thornton A. Sullivan and Hauge Homestead Parks.

Policy 3.15.10 Encourage landscaping and screening of existing activities which have the potential for adversely affecting nearby properties. Require landscaping and screening of new activities which have the potential for adversely affecting nearby properties.

Policy 3.15.11 Encourage uses to limit and screen lighting to minimize impacts on views and residential areas when applicable.

I. Shoreline Residential.

1. Purpose

The purpose of the Shoreline Residential use environment is to:

- provide for a continuation of residential and accessory uses,
- protect steep slope areas that are unsuitable for further development, and
- provide for compatible shoreline public access activities.

2. Classification Criteria

Properties abutting Silver Lake in Sections 30 and 19, Township 28N, Range 4E; Maulsby Swamp, Port Gardner Bay, and Lake Stickney that are designated single or multiple family residential on the Comprehensive Plan, except for the Swamp Creek wetland and buffer located at the northwest portion of Lake Stickney, and except for the property located south of Thornton A. Sullivan Park acquired in 1999 by the City of Everett for park purposes.

3. Area Designated

a. The residential properties abutting Silver Lake that are located west of SR 527.

1) The area located north of Silver Lake extending from the east property line of Thornton A. Sullivan Park to the east property line of parcel number 4943 005 001 00. The shoreline jurisdiction includes the land within 200 feet of the ordinary high water mark of Silver Lake.

2) The area south and west of Silver Lake extending from the south property line of the recently purchased city-owned park land (the north property line of parcel number 5749 000 013000) to the west boundary of Hauge Homestead Park. The shoreline jurisdiction includes the land within 200 feet of the ordinary high water mark of Silver Lake.

Vision Statement. Residential and park use will continue in this area.

b. Lake Stickney. All lands on the north, east and south portions of Lake Stickney between the west property line of parcel number 3740 000 027 00 (lot 27 of the Replat of Lots 5 & 6 Block 7 Alderwood Manor No. 11) to the northwest property line of parcel number 4939 000 055 00 (lot 55 of Lake Stickney Tracts) . The shoreline jurisdiction includes the land within 200 feet of the ordinary high water mark of Lake Stickney and associated wetlands.

Vision Statement. Single family use around Lake Stickney will continue. The public access, wetlands and streams at the north and west portions of the lake will be preserved.

c. Lowell-Larimer Road. The properties designated residential on the Comprehensive Plan that are located in the floodplain along Lowell-Larimer Road south of Lowell. (*Ordinance 3053-08, effective 12/24/09*)

d. Above Maulsby Swamp. The properties designated residential on the Comprehensive Plan that are located within 200 feet of the ordinary high water mark of Maulsby Swamp.

e. Above Port Gardner Bay. All of the properties designated residential on the Comprehensive Plan that are located south and east of the BNSF south and east property lines above Port Gardner Bay, except for the Mukilteo Tank Farm site and the associated wetlands in shoreline jurisdiction which are designated Urban Conservancy.

4. Management Policies

Policy 3.16.1 Residential and accessory uses, recreation facilities, and public access shall be the preferred uses.

Policy 3.16.2 Steep slopes shall be protected per the requirements of EMC 19.37 and this SMP.

J. Urban Conservancy – Recreation

1. Purpose

The purpose of the Urban Conservancy - Recreation environment is to:

- provide public access for enjoyment of marine, lake and river shorelines,
- allow for the development of public recreational facilities,
- provide for protection of important ecological resources and rehabilitation of significant wetland and habitat areas.

2. Criteria for Designation

Areas which include one or more of the following characteristics:

- a. Areas suitable for public access, water-enjoyment recreational uses, and active recreation developments.
- b. Floodplains that have been altered by agricultural activities.
- c. Areas developed at a very low density or used at a low to moderate intensity, including, but not limited to residences, agriculture, and outdoor recreation development.
- d. Areas not planned for intensive urban development that have the potential for ecological rehabilitation.

3. Areas Designated

a. Park zoned properties located south and southeast of the BNSF southeast property lines between the Mukilteo Tank farm site and the Port of Everett’s south terminal. All of the park zoned properties located south and southeast of the BNSF property lines, except for the wetlands designated Conservancy. This includes portions of Howarth Park and Forest Park.

b. Park zoned properties located above Maulsby Swamp: All of the park zoned property within 200 feet of the ordinary high water mark of Maulsby Swamp.

c. Langus Riverfront Park: All of the city-owned property located east of the ordinary high water mark of the Snohomish River and west of the east edge of the I-5 right-of-way, except for the cut-off tidal channel. The waterward boundary is the ordinary high water mark.

d. South Simpson Site: All of the Simpson site/BNSF right-of-way located south of the development pad in shoreline jurisdiction, except for Bigelow Creek and the Category 1 wetlands and their associated buffers required by the SMP and the buffer along the Snohomish River required by the SMP. The west boundary is 200 feet from the OHWM; 200 feet from the floodway; or the western floodplain boundary (but extending no further than the west edge of the BNSF right-of-way), whichever is further west. (*Ordinance 3053-08, effective 12/24/09*)

e. Rotary Park: All of Rotary Park. The north boundary is the OHWM of the Snohomish River, the south boundary is the northern edge of Lowell Snohomish River Road, the east and west boundaries are the City of Everett Rotary Park property lines.

Vision Statement. The Category 3 wetlands on the Simpson site will be for conservation and park purposes, except for transportation and utility access. The southern portion of the site should be open space and park use. A road connecting the River Road with the 41st interchange via the development pad may be located on the southern portion of the site.

Vision Statement. Rotary Park will be used for public parks and public access, and restoration/mitigation.

f. Silver Lake: The City-owned Thornton A. Sullivan Park on Silver Lake and the property recently purchased by the City for park expansion. (Parcels 3028 051 002 00, 3028 051 008 00, 3028 051 036 00, 3028 051 038 00). The waterward boundary is the ordinary high water mark. The western boundary is 200 feet from the ordinary high water mark.

g. Silver Lake: The City-owned Hauge Homestead Park property in the southeast corner of Silver Lake. The waterward boundary is the ordinary high water mark. The east boundary is 200 feet from the ordinary high water mark.

4. Management Policies

Policy 3.17.1 Active recreation facilities, transportation and utility facilities, and public access improvements should be allowed on lands designated Urban Conservancy – Recreation. During development, all reasonable efforts should be taken to protect and/or mitigate impacts to wetlands and other sensitive shoreline resources. In carrying out this policy, consideration should be given to promoting functional connectivity and other landscape ecology principles and recognizing that the function of some patches of remnant or artificially-created critical areas may be improved by relocating or consolidating them into larger or more connected systems with higher resource values.

Policy 3.17.2 Shoreline rehabilitation and public access should be required of all nonwater-dependent development.

Policy 3.17.3 Water-dependent recreational uses will be given priority in locations contiguous to navigable waters.

Policy 3.17.4 Allow development of nonwater-dependent public recreation facilities on publicly owned lands that are located within the floodplain of the Snohomish River.

Policy 3.17.5 The wetlands and buffer vegetation on the Rotary Park property should be protected.

Policy 3.17.6 Ballfields or other active recreation facilities should be allowed in the southern portion of the Simpson site.

Policy 3.17.7 New construction of structures in the floodplain areas should be limited to structures with low flood damage potential. When development is allowed within floodplain areas, necessary measures shall be taken to protect property from damages that could be caused by flooding. New development in floodplain areas should reflect the character of the surrounding area by limiting residential density, providing permanent open space, and maintaining adequate building setbacks from the water to protect shoreline resources.

Policy 3.17.8 Manage City park lands on Silver Lake for a wide variety of public access opportunities. Connect City-owned park lands with the pedestrian trail system and private property public access improvements that are developed as private properties develop.

Policy 3.17.9 Manage Langus Riverfront Park for recreation and shoreline public access, and as an interim dredged materials handling facility.

Policy 3.17.10 Manage the steep slope areas in park zones above the BNSF railroad above Port Gardner Bay by requiring development to comply with the City's regulations for geologically hazardous areas.

Policy 3.17.11 Manage City park facilities to preserve shoreline vistas and public access to the shoreline.

Policy 3.17.12 Provide safe pedestrian access improvements over or under the railroad tracks to the beach wherever possible.

Policy 3.17.13 Allow uses and activities, including public access, which result in educational and scientific benefits for the community.

K. Urban Conservancy

1. Purpose

The purpose of the Urban Conservancy use environment is to:

- provide public access for enjoyment of marine, lake and river shorelines, and to
- provide for protection of important ecological resources and rehabilitation of significant wetland and habitat areas,

2. Criteria for Designation

Areas which include one or more of the following characteristics:

- a. Areas suitable for public access.
- b. Areas not planned for intensive urban development that have the potential for ecological rehabilitation.
- c. Areas with important ecological resources that should be protected from further development activities.
- d. Areas along Port Gardner Bay modified by railroad activities.
- e. Areas that ranked high in the 1997 SEWIP for water quality and wildlife functions.

3. Areas Designated

- a. Jetty Island. All of Jetty Island above the ordinary high water mark.
- b. Adjacent to Maulsby Swamp All of the property within 200 feet of the ordinary high water mark of Maulsby Swamp located west of the east Burlington Northern right-of-way line, except for the properties zoned Residential or Park.
- c. The Port of Everett Property west of I-5. Parcel 0429 053 005 00 and the portion of Parcel 0429 052 005 00 located south of a line connecting the north side of the pond and north side of the slough extension into the site. Along Union Slough, the waterward boundary is the ordinary high water mark. The eastern boundary is the city limit.
- d. Langus Riverfront. The cutoff tidal channel below the ordinary high water mark.
- e. Ferry Baker Island and Weyco Island-in the Snohomish River. All of Ferry Baker Island and Weyco Island above the ordinary high water mark. (*Ordinance 3053-08, effective 12/24/09*)
- f. City-owned parcel located southwest of Weyco Island and north of I-5. That area owned by the City of Everett contiguous to the west bank of the Snohomish-River in the SW-1/4 of Section 16-29-5 (parcel number 1629 053 002 00) within 200 feet of the OHWM or 200 feet of the floodway, whichever is further inland. (*Ordinance 3053-08, effective 12/24/09*)
- g. Simpson Site. Bigelow Creek and the Category 1 wetlands and their buffers required by the SMP, along with the riparian corridor along the entire east edge of the property required by the SMP.

The waterward boundary is the ordinary high water mark of the Snohomish River provided that any portion of the northern Category 1 wetland between the OHWM and the Aquatic Conservancy area is also Urban Conservancy. The western boundary for the northern Category 1 wetland and Bigelow Creek is the line that corresponds to the existing west edge of the Burlington Northern right-of-way and any wetlands that extend beyond the west edge of the right-of-way. Interior boundaries are the edge of the buffers adjacent to Bigelow Creek and the Category 1 wetlands required by the SMP. The western/interior boundary for the riparian corridor along the River is 200 feet from the floodway, or 200 feet from the OHWM, or the

buffer required by the SMP for the wetlands in the corridor, whichever is further west.
(Ordinance 3053-08, effective 12/24/09)

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

h. East of Rotary Park and north of Lowell-Larimer Road. The waterward boundary is the ordinary high water mark. The southern boundary is the north edge of the Lowell – Snohomish River Road. The west boundary is Rotary Park. The east boundary is the City limit.

i. Portions of the Marshland Site. The Spane wetland mitigation site, the forested wetlands in 1997 SEWIP AUs numbered 193, 196, 202, and the Simpson Paper Co. landfill surrounded by SEWIP AU 196. *(Rev 3/17/2011)*

j. Lake Stickney. All lands on the north and west portions of Lake Stickney between the west property line of parcel number 3740 000 027 00 (lot 27 of the Replat of Lots 5 & 6 Block 7 Alderwood Manor No. 11) to the northwest property line of parcel number 4939 000 055 00 (lot 55 of Lake Stickney Tracts). The waterward boundary is the ordinary high water mark. The outer boundary is 200 feet of the ordinary high water mark of Lake Stickney or the edge of associated wetlands, whichever is greater.

k. City-owned parcels located between SR 527 and the east shoreline of Silver Lake. The area on the lake side of SR527/19th Ave. SE extending from the east property line of parcel number 4943 005 001 00 to the north property line of parcel 3028 051 032 00 (Emory’s Lakehouse Restaurant). The waterward boundary is the ordinary high water mark. The landward boundary is the south and west right-of-way line for SR 527/19th Ave. SE.

4. Management Policies

Policy 3.18.1 Lands designated Urban Conservancy should be protected, restored, and enhanced to the extent feasible, while allowing necessary transportation and utility facilities and public access improvements. During development, all reasonable efforts should be taken to preserve, restore and/or enhance ecological functions, and prevent further degradation of shoreline resources. In carrying out this policy, consideration should be given to promoting functional connectivity and other landscape ecology principles and recognizing that the function of some patches of remnant or artificially-created critical areas may be improved by relocating or consolidating them into larger or more connected systems with higher resource values.

Policy 3.18.2 Shoreline rehabilitation and public access should be required of all development when feasible.

Policy 3.18.3 Protect important habitat areas and ecological resources from further intensive development. Allow uses and activities, including public access, ecological enhancement and restoration, research, and public interpretive facilities which result in educational and scientific benefits for the community.

Policy 3.18.4 Land contiguous to the Snohomish River should be developed with trails, while protecting and enhancing important shoreline resources.

Policy 3.18.5 New construction of structures in the floodplain areas should be limited to structures with low flood damage potential. When development is allowed within floodplain areas, necessary measures shall be taken to protect property from damages that could be caused by flooding.

Policy 3.18.6 Manage Jetty Island for passive public recreation and wildlife habitat value.

Policy 3.18.7 Allow the placement of dredged materials for the purposes of habitat enhancement, beach enhancement, and public recreation when not harmful to the ecological functions of the Jetty Island shoreline.

Policy 3.18.8 Allow for the continued use, maintenance, expansion and relocation of railroad facilities, public roads and highways within the shoreline jurisdiction, except that the expansion of railroad facilities along Port Gardner Bay south and west of the Port of Everett's south terminal should be discouraged.

Policy 3.18.9 Manage City park facilities to preserve shoreline vistas and public access to the shoreline.

Policy 3.18.10 Provide safe pedestrian access improvements over or under the railroad tracks to the beach wherever possible.

Policy 3.18.11 Manage Ferry Baker Island and Weyco Island for passive recreational opportunities and wildlife habitat value.

Policy 3.18.12 Manage Maulsby Swamp for wildlife habitat and educational values.

Policy 3.18.13 Manage the Simpson wetlands and Bigelow Creek for wildlife habitat, water quality, and educational values. Restoration of the Category 1 wetlands and stream corridor should be encouraged.

Policy 3.18.14 Manage the Lake Stickney wetlands for wildlife habitat and water quality values.

Policy 3.19.15 Encourage restoration and enhancement of the Urban Conservancy designated areas in the Marshland consistent with the Marshland Subarea Plan. Encourage environmental remediation, as appropriate, and restoration of the Simpson Paper Company landfill. (*Rev. 3/17/2011*)

L. Municipal – Water Quality

1. Purpose

To provide for the continued operation, maintenance, and expansion of the City’s Water Pollution Control facility as necessary to protect the public health, safety and welfare, while encouraging public access and wetland restoration actions that will not conflict with the facility.

2. Classification Criteria

Areas currently owned by the City of Everett containing the City’s Water Pollution Control Facility.

3. Area Designated

Portion of Smith Island within the City limits located east of the east right-of-way line of I-5. The waterward boundary is the ordinary high water mark. Provided that any area located more than 200 feet from the OHWM and floodway and that is not in the floodplain is not in shoreline jurisdiction. (*Ordinance 3053-08, effective 12/24/09*)

Vision Statement. The City’s Water Pollution Control Facility will continue to operate and expand in this area. Activities associated with the operation and maintenance of the facilities will be permitted. Public access and environmental restoration will be encouraged to the extent they do not conflict with the operation and expansion of the sewage treatment facilities.

4. Management Policies

- a. Provide sewage treatment facilities if environmental impacts can be mitigated.
- b. Maintenance, repair, and expansion or improvements to the City’s water pollution control facility shall be a permitted activity.

M. Municipal - Watershed

1. Purpose

The Municipal Watershed Environment is an area in and around Chaplain Reservoir (within shoreline jurisdiction) that specifically functions as a municipal watershed supplying domestic and industrial water to the City of Everett and the majority of residents in Snohomish County. The quality of surface water and associated public health and safety are of paramount importance under this designation. Except for specific permitted activities, public access is to be prohibited. Activities are allowed under this designation only if they have little or no potential to degrade or contaminate water quality.

A shoreline shall be designated Municipal Watershed to ensure that uses are compatible with the stated City priority of public health and safety. Activities shall be consistent with the specific goal of the City to provide a safe and adequate supply of water to Everett and other purveyors. Activities shall also be consistent with the FERC approved Wildlife Habitat Management Plan.

2. Classification Criteria

Areas to be designated Municipal Watershed should relate to two or more of the following:

- Areas recognized as integral parts of the Chaplain Reservoir watershed;
- Areas where development and increased human use will potentially jeopardize water quality;
- Areas that, if specifically protected, would enhance the City's ability to provide a safe and adequate water supply;
- Areas in which, through specific improvements such as erosion control structures, the City's ability to provide a safe and adequate water supply would be enhanced.

3. Areas Designated

- a. All areas of the Lake Chaplain Reservoir that are subject to shoreline jurisdiction as defined in RCW 90.58.030, including the surface of the reservoir and its water column.
- b. Those portions of the Sultan River and Woods Creek within the Everett City limits. The boundaries shall include the water column and the land underneath the water and the lands extending to 200 feet beyond the ordinary high water mark and associated wetlands.

Vision Statement. This area shall be managed to provide a safe and adequate water supply to the City of Everett and other customers. Permitted uses should be limited to municipal water supply facilities, and uses and activities accessory to the provision of municipal water. In order to protect water quality, public access would be prohibited within the watershed hydrologic boundaries and limited within the remaining incorporated Chaplain Tract.

4. Management Policies

Policy 3.19.1 Establish long-term water quality protection (public health and safety) as top priority within the Municipal Watershed Environment, including prohibiting public access.

Policy 3.19.2 Permit specific activities and development designed to provide adequate water supply and enhance and ensure water quality within the Municipal Watershed Environment.

Policy 3.19.3 Prohibit activities and uses of the Municipal Watershed Environment which may jeopardize water quality protection (public health and safety).

Policy 3.19.4 Allow activities required by the Federal Energy Regulatory Commission (FERC) License for the Jackson Hydroelectric Project and the Washington State Department of Health.

Policy 3.19.5 Allow modification of and additions to structures and pipes related to the Jackson Hydroelectric Project.

N. Aquatic

1. Purpose

The purpose of this designation is to protect the unique characteristics and resources of the aquatic environment by managing use activities to prioritize preservation and restoration of natural resources, navigation, recreation, and commerce, and by assuring compatibility between shoreland and aquatic uses.

2. Classification Criteria

- a. All marine water areas seaward of the ordinary high water mark, except for the area within the Urban Deep Water Port Environment inside the outer harbor line, and except for the area within the Urban Maritime Environment landward of the government pier head line, and except for the SEWIP assessment units designated Aquatic Conservancy.
- b. All lakes subject to this program below the ordinary high water mark, excluding the Lake Chaplain Reservoir.
- c. All stream channels of rivers designated shorelines of the state, except for the portions of Woods Creek and the Sultan River in the Everett city limits, and except for the SEWIP assessment units designated Aquatic Conservancy.
- d. The aquatic environment includes the water surface together with the underlying lands and the water column.

3. Area Designated

All water bodies within the City limits of Everett and its Urban Growth Boundary under the jurisdiction of the Shoreline Management Act waterward of the shoreline environment designations established above, except for water bodies in the Municipal Watershed Environment and areas designated Aquatic Conservancy, Urban Deep Water Port, or Urban Maritime. This includes

- All water areas of Port Gardner Bay waterward of the ordinary high water mark, except for the portion inside the outer harbor line/pierhead line in the Urban Deep Water Port Environment, and the SEWIP assessment units designated Aquatic Conservancy.

- All water areas of the Snohomish and its sloughs waterward of the ordinary high water mark, except for the portion inside the pierhead line in the Urban Maritime Environments, and the SEWIP assessment units designated Aquatic Conservancy.
- All water areas waterward of the ordinary high water mark in Silver Lake, and
- All water areas waterward of the ordinary high water mark in Lake Stickney.

The aquatic environment includes the water surface together with the underlying lands and the water column of such areas.

4. Management Policies

Policy 3.20.1 Over-water structures should be allowed only for water-dependent uses, transportation and utility facilities, and public access. Except for public bridges and utilities, over water structures cannot extend beyond the harbor line/pierhead line. Over-water structures refer to structures that are located on or above the surface of the water.

Policy 3.20.2 The size of new over-water structures should be limited to the minimum necessary to support the structure’s intended use.

Policy 3.20.3 Uses and activities within the Aquatic Environment should be compatible with the adjoining shoreline environments.

Policy 3.20.4 In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple use of over-water facilities should be encouraged, provided that use conflicts can be avoided.

Policy 3.20.5 All developments and use activities on navigable waters or their beds should be located and designed to minimize interference with surface navigation, to minimize impacts to public views, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.

Policy 3.20.6 Uses that cause significant adverse impacts to critical saltwater and fresh water habitats should not be allowed. Where those uses are necessary to achieve the objectives of RCW 90.58.020, their impacts shall be mitigated according to the sequence defined under mitigation.

Policy 3.20.7 Diverse public access opportunities to water bodies should be encouraged and developed and should be compatible with the existing shorelines and water body uses.

Policy 3.20.8 For Lake Stickney and Silver Lake, fishing and recreational uses of the water should be protected against competing uses that would interfere with these activities.

Policy 3.20.9 Dredging should be allowed for environmental restoration, including milfoil removal, maintenance of existing water-dependent uses, including recreational uses, navigation channel maintenance, and for new water-dependent uses to get from the shore to the dredged navigation channel.

New deep draft uses, if allowed, should not occur in areas requiring extensive initial or maintenance dredging.

Policy 3.20.10 With exceptions for boat launching areas and other permitted water-dependent uses, motorized vehicular travel other than boats should be discouraged on all tideland areas.

Policy 3.20.11 Development of underwater pipelines and cables on tidelands should be discouraged, except where there would be short-term impact and overall benefit to shoreline and environmental quality. When permitted, such facilities should include adequate provisions to insure against substantial or irrevocable damage to the environment. Reconstruction or replacement facilities should maintain or improve shoreline and environmental quality.

Policy 3.20.12 Where the State owns the abutting shorelands, priority should be given to joint development of the shorelands and tidelands for public use.

Policy 3.20.13 Long-term off-shore boat moorage which causes adverse visual and/or environmental impacts should be discouraged.

O. Aquatic Conservancy

1. Purpose

The purpose of this designation is to protect the unique characteristics and resources of the aquatic environment by managing use activities to prioritize preservation and restoration of natural resources, navigation, recreation, and commerce, and by assuring compatibility between shoreland and aquatic uses.

2. Classification Criteria

- a. Aquatic areas seaward of the ordinary high water mark that ranked in the top quartile of assessment units within the Urban Growth Boundary for salmonid habitat in the 2000 SEWIP Salmon Overlay, and all assessment units, except the Maulsby mudflats, that ranked in the top quartile within Ecological Management Unit pairs for salmonid habitat.
- b. The nearshore SEWIP assessment units areas along Port Gardner Bay south and west of the Port's south terminal.
- c. The aquatic environment includes the water surface together with the underlying lands and the water column.

3. Area Designated

- a. Maulsby Swamp. The western boundary is the east edge of the Burlington Northern right-of-way. The inland boundary is the ordinary high water mark.
- b. For all of the following areas, the landward boundary is the ordinary high water mark, and the waterward boundary is the 2000 SEWIP Salmon Overlay assessment unit (AU) boundary.
 - 1) Nearshore. AUs 7.04, 7.05, 7.06, 7.07, 7.08, 7.09
 - 2) Jetty Island Salt Marsh. AU 4.04

- 3) Mudflats west of Jetty Island. AU 4.05
- 4) Southeast side of Jetty Island. AU 5.12
- 5) Mudflats north west of the Port's Bayside Property. AU 5.05
- 6) Aquatic Areas adjacent to Ferry Baker and Weyco Islands. AUs 2.46, 2.47, 2.49
- 7) Other assessment units along the Snohomish River. AUs 5.02, 5.03, 2.41, 2.44, 2.52, 1.18, 1.13, 1.15
- 8) Assessment units along Union Slough. AUs 1.05, 2.28, 2.30, 2.31.

The Aquatic Conservancy environment includes the water surface together with the underlying lands and the water column of such areas.

4. Management Policies

Policy 3.21.1 New over-water structures should be limited and allowed only for public access, and for public bridges, transportation facilities of statewide significance and utilities with no practical alternative locations.. Over water structures cannot extend beyond the harbor line/pierhead line, except for public bridges and utilities approved through a conditional use process. Over-water structures refer to structures that are located on or above the surface of the water. (Ordinance 2736-03)²⁷

Policy 3.21.2 The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.

Policy 3.21.3 Uses and activities within the Aquatic Conservancy Environment should be limited to public access and necessary utility and transportation facilities. Nonwater-dependent utility facilities and all transportation facilities should only be allowed through a conditional use permit.

Policy 3.21.4 All developments and uses on navigable-waters or their beds should be located and designed to minimize interference with surface navigation, to minimize impacts to public views, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.

Policy 3.21.5 Diverse public access opportunities to water bodies should be encouraged and developed and should be compatible with the existing shorelines and water body uses.

Policy 3.21.6 Dredging should only be allowed for environmental restoration, maintenance of existing water-dependent uses, and for maintenance of the federal navigation channel.

Policy 3.21.7 Development of underwater pipelines and cables on tidelands should be discouraged, except where no feasible alternative exists (such as for deepwater outfalls). When permitted, such facilities should include adequate provisions to insure against significant ecological impacts. Mitigation shall be provided for all impacts.

Policy 3.21.8 Many of the SEWIP assessment units received high rankings partially due to high quality riparian vegetation along dikes adjacent to the aquatic areas. In such cases the high

²⁷ Effective 12/9/03

quality vegetation should be preserved along the dike. Where additional shoreline stabilization is needed to provide for development adjacent to these aquatic areas, where feasible, new dikes or other stabilization structures should be constructed inland of the existing dikes. In such instances, long-term maintenance of vegetation could be provided on the new inland stabilization structures, while vegetation on the outer dikes should be preserved and enhanced.

Policy 3.21.9 Public access structures and utilities shall not intrude into or over critical saltwater habitats except when the public’s need for the facility is clearly demonstrated; when avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible; the project is designed to minimize its impacts on critical saltwater habitats and significant ecological impacts are mitigated.

P. Urban Conservancy Agriculture

(Rev. 3/17/2011)

1. Purpose

The Marshlands is a shoreline area that has been identified as having significant tidal restoration potential and that is characterized by diverse property ownership, and floodplains/floodways that have been altered by diking, agricultural activities, transportation facilities, and utility corridors. The City, in cooperation with property owners, Ecology, scientists, interested agencies/organizations, and members of the public, conducted a subarea planning process for the Marshlands to address the feasibility of restoration, as well as appropriate land uses for the area. The resulting Marshland Subarea Plan is incorporated by reference in this Shoreline Master Program.

2. Area Designated – Urban Conservancy Agriculture

All portions of the Marshlands area within the floodplain of the Snohomish River in the Everett urban growth boundary located south of the north boundary of Lowell Snohomish River Road, except for those properties specifically designated Urban Conservancy and Shoreline Residential.

Provided that any portion of the Marshland Subarea that is restored to tidal habitat automatically is designated Aquatic in areas below the ordinary high water mark. (Aquatic designated areas include “All water areas of the Snohomish and its sloughs waterward of the ordinary high water mark, except for the portion inside the pierhead line in the Urban Maritime Environment, and the SEWIP assessment units designated Aquatic Conservancy.”)

3. Management Policies

Policy 2.23.1 All development, including restoration should be consistent with the Marshland Subarea Plan. Until such time as restoration and enhancement actions are undertaken, agricultural use will continue to be the predominant use in the area. No development should be allowed that would preclude the restoration actions identified in the Subarea Plan.

Policy 2.23.2 Public access should be encouraged.

Policy 2.23.3 Agriculture and associated industry, forest practices, and transportation and utility facilities are permitted. Residential uses should be allowed in the rural flood fringe district along

Larimer Road when applicants can meet all applicable City and Snohomish Health District codes and regulations.

Policy 2.23.4 New construction of structures in the floodplain areas should be limited to structures with low flood damage potential. When development is allowed within floodplain areas, necessary measures shall be taken to protect property from damages that could be caused by flooding, including compliance with the City’s floodplain regulations. New development in floodplain areas should reflect the character of the surrounding area by limiting residential density, providing permanent open space, and maintaining adequate building setbacks from the water to protect shoreline resources.

Policy 2.23.5 Allow uses and activities, including public access, which result in educational, passive recreational, and scientific benefits for the community.

IV. Shoreline Use Policies and Regulations

A. Agricultural Practices

Introduction. Agriculture includes, but is not limited to, the production of horticultural, viticultural, floricultural, livestock, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed or Christmas trees; the operation and maintenance of farm and stock ponds, drainage ditches, or irrigation systems; and the normal maintenance and repair of existing structures, facilities and lands currently under production or cultivation. Associated activities such as farm bakeries, farm stands, farm product processing, agricultural education and promotion (including activities such as corn mazes), or demonstration farms are also considered to be agricultural activities. Agricultural practices are those methods used in livestock, crop vegetation and soil management, such as tilling of soil, control of weeds, control of plant diseases and insect pests, soil maintenance, and fertilization, as well as animal husbandry practice such as feeding, housing maintenance, and marketing. Many of these practices require the use of agricultural chemicals, most of which are water soluble and may wash into contiguous land or water areas causing significant alteration and damage to plant and animal habitats, especially those in the fragile shoreline areas. Also, large quantities of mineral and organic sediments enter water bodies through surface erosion when proper land management techniques are not utilized. (*Rev. 3/17/2011*)

Agriculture in the Everett area is limited to a portion of the Snohomish River Flood plain in the southeast corner of the city, and to portions of Smith and North Spencer Islands. New agricultural activity is not currently a permitted use on Smith and North Spencer Islands, but should be allowed as an interim use subject to the provisions of this Section.

This section applies to new agricultural development. It does not apply to existing and ongoing agriculture. For the purposes of defining “existing and ongoing,” the City shall use the definition of agriculture in RCW 84.34.020(2), except that agricultural lands enrolled in set-aside programs administered by the Natural Resources Conservation Service or the Farm Services Administration of the US Department of Agriculture, or any other federal, state, or local agency,

are considered to remain existing, ongoing agriculture. Activities which bring an area into agricultural use are not part of an ongoing operation.

RCW 90.58.030 (3)(e) defines substantial development for agricultural uses.

Policy 3.23.1 New development, clearing, and grading in support of agricultural uses should be located and designed to avoid significant ecological impacts.

Policy 3.23.2 The City should require the maintenance of a buffer of permanent vegetation between tilled areas and associated water bodies or wetlands which will retard surface runoff and siltation, enhance water quality and provide habitat for fish and wildlife.

Policy 3.23.3 Comply with control guidelines prepared by the U. S. Environmental Protection Agency and state and local agencies for regulating the location of confined animal feeding operations, retention and storage ponds for feed lot wastes, and stockpiles of manure solids so that water areas will not be polluted.

Policy 3.23.4 Farm management techniques, operations and control methods should protect the productivity of the land base by maintaining or improving soil quality and minimizing soil losses through erosion in accordance with standards and guidelines established by the Natural Resources Conservation Service (NRCS), US Department of Agriculture.

Policy 3.23.5 Appropriate farm management techniques should be utilized to prevent contamination of water bodies and adverse effects on valuable plant, fish and animal life from fertilizer and pesticide use and application.

B. Aquaculture

Introduction. Aquaculture (popularly known as fish farming) is the culture of food fish, shellfish, or other aquatic plants and animals in lakes, streams, inlets, estuaries, and other natural or artificial water bodies. Activities include the hatching, cultivating, planting, feeding, raising and harvesting of aquatic plants and animals and the maintenance and construction of necessary equipment, buildings and growing areas. Cultivation methods include, but are not limited to, fish pens, shellfish rafts, racks and long lines, seaweed floats and nets and the culture of clams and oysters on tidelands and subtidal areas. When consistent with control of pollution and prevention of damage to the environment, aquaculture activities are a preferred shoreline use. Potential locations for aquacultural enterprises are relatively restricted due to specific requirements for water quality, temperature, flows, oxygen content, nearby land uses, wind protection, commercial navigation, and in marine waters, salinity. The technology associated with some forms of aquaculture is still in its formative stages and experimental.

Policy 3.24.1 Areas with high aquacultural use potential should be identified and encouraged for aquacultural use and protected from degradation by other types of land and water uses.

Policy 3.24.2 Preference should be given to those forms of aquaculture that involve lesser environmental and visual impacts. In general, projects that require no structures, submerged structures or intertidal structures should be given preference over those that involve substantial floating structures. Projects that require few land-based facilities should be given preference over those that require extensive facilities. Projects that involve little or no substrate modification should be given preference over those that involve substantial modification.

Policy 3.24.3 Where a choice of aquacultural methods are available, or where two or more incompatible aquacultural projects are proposed in the same area, the relative environmental impacts of each method or proposal should be considered. In general, preference should be given to methods listed in subsection (1), below, over those listed in subsection (2):

(1) Methods involving no submerged, intertidal, or floating structures or facilities and minimal substrate modification; methods involving submerged subtidal structures or facilities; methods involving intertidal structures or facilities.

(2) Methods involving floating structures or facilities; methods involving floating structures with artificial feeding and/or substantial substrate modification.

Policy 3.24.4 The city-wide density of net-pen and raft culture operations should be limited as necessary to minimize cumulative environmental impacts.

Policy 3.24.5 Aquaculture activities should be given flexibility to experiment with new aquaculture techniques. However, experimental aquaculture projects should be limited in scale and should be approved for a limited period of time.

Policy 3.24.6 Aquaculture should not be permitted in areas where it would significantly degrade ecological functions or significantly conflict with navigation and other water-dependent uses.

Policy 3.24.7 Aquacultural facilities should be developed and operated to minimize nuisance odor and noise impacts to surrounding properties.

C. Boating Facilities

Introduction. Boating facilities include marinas, either dry or wet moorage types; boat launch ramps; boat rental facilities; covered moorage; boat houses; mooring buoys; boat lifts; and services for pleasure craft and small commercial boats. Boating facilities do not include docks serving four or fewer single-family residences, a single dock provided at an apartment complex, or facilities provided for commercial or industrial uses, except as otherwise provided in marinas.

All boating facilities must also comply with the requirements of Section 6.7 Piers, Docks and Floats, as applicable.

“Boat launch ramps” are constructed of concrete or other material which extends onto the water and tidelands for boat launching. Associated improvements may include piers or docks on the sides of the ramps.

“Day-use non-motorized boat rental facilities” include docks, buildings, and storage facilities associated with the rental of canoes, kayaks, small sailboats, paddle boats, and other non-motorized boats, usually on an hourly or daily basis. Because of the short-term nature of the use and the type of boats involved, facilities such as sewage pump-out stations are not necessary.

“Day-use motorized boat rental facilities” include docks, buildings, fueling areas, and storage facilities associated with the rental of motorized boats on an hourly or daily basis. Motorized boat rental facilities may be allowed as an accessory use in marinas or as a stand alone use. Because of the short-term nature of the use and the type of boats involved, facilities such as sewage pump-out stations and fueling areas may not be necessary.

“Marinas” are facilities that provide wet and/or dry moorage for at least 5 boats, boat launching, storage, supplies and services for small pleasure craft. There are two basic types of marinas: foreshore marinas and backshore marinas. Foreshore marinas are located in the intertidal or offshore zone and may require breakwaters of open-type construction (floating breakwater and/or open pile work) and/or solid-type construction (bulkhead and/or landfill). Backshore marinas are located landward of the OHWM. There are two common types of backshore marinas, one with wet-moorage that is dredged to artificially create a basin; and dry moorage, which has upland storage with a hoist, marine travel lift, or ramp for access. Marinas may also include facilities for commercial and industrial vessels, and rescue and law enforcement vessels. However, commercial and industrial uses must also comply with the commercial and industrial requirements of this SMP and the Zoning Code.

Accessory uses found in marinas may include fueling facilities; boating equipment sales and rental; boat rental; repair services; public launching; potable water; waste disposal; administration; parking; yacht clubs; and retail sales of bait and tackle, groceries and dry goods. Activities associated with marinas, such as commercial uses, parking, boat repair (industrial), utilities, and transportation facilities are subject to the regulations established for those uses.

Where an accessory use is not specifically addressed as a separate use, such as yacht clubs, the boating facility regulations shall apply. In addition, the shoreline modifications are subject to the regulations in Section 6.

Because of the effect marinas have on wildlife, fish and shellfish habitats "best management practices" should be implemented to prevent adverse impacts.

“Covered moorage” is wet or dry moorage and is an accessory use to marinas.

“Boat houses” are generally small covered wet or dry boat moorage buildings associated with a single use, such as a single family house or a rescue boat at a public beach.

Policy 3.25.1 Local as well as regional "need" data should be considered as input to the development of marinas.

Policy 3.25.2 Priority will be given to marina development in developed areas.

Policy 3.25.3 Marinas should be located so as to minimize the consumption of limited shoreline resources by considering:

- 1) The expansion of existing marinas over the addition of new marinas;
- 2) Marinas and launch ramps are preferred over the development of individual docking facilities for private, non-commercial pleasure craft; and
- 3) The use of boat launch ramps and dry storage and other new technologies as alternatives to sheltered, year round wet moorage of water craft.

Policy 3.25.4 Areas which should not be considered for marina sites are embayments with poor flushing action or sites that are hazardous due to storm tides, high winds or flooding.

Policy 3.25.5 All boating facilities should be located, designed, and operated to minimize negative impacts to aquatic, littoral, or land life forms including animals, fish, shellfish, birds, and plants, their habitats and their migratory routes. To the extent possible, boating facilities should be located in areas of low biologic productivity. Mitigation of adverse impacts should be required.

Policy 3.25.6 Boating facilities should be located and designed to minimize adverse effects upon, and to enhance if possible, beneficial shoreline features and processes including erosion, littoral transport and accretion shoreforms, as well as scarce and valuable shore features including riparian habitat and wetlands.

Policy 3.25.7 Boating facilities should be located and designed so their structures and operations will be aesthetically compatible with the area visually affected, and will not unreasonably impair shoreline views.

Policy 3.25.8 New marina facilities should be designed to accommodate public access and enjoyment of the shoreline including provisions for walkways, view points, rest room facilities

and other recreational uses according to the scale of the facility. (Also see Public Access in II.G.)

Policy 3.25.9 Special attention should be given to the design and development of operational procedures for fuel handling and storage in order to minimize accidental spillage and provide satisfactory means for handling those spills that do occur.

Policy 3.25.10 The multiple use concept should be a consideration of all local marina designs, including but not limited to such uses as public access, dock fishing, boat launching, wet and dry boat storage, as well as off-season utilization of the facility.

Policy 3.25.11 Installation and maintenance of sewage disposal (pumpout stations) should be required and available in convenient locations to all marina users.

Policy 3.25.12 Live-aboards should be permitted in marinas only if and when adequate measures are in place to protect water quality.

Policy 3.25.13 Launch facilities should be designed and managed to prevent milfoil from entering the lake from boats.

D. Commercial Development

Introduction. Commercial development are those uses which are involved in wholesale, retail trade, service and business trade. Examples include hotels, motels, grocery markets, shopping centers, restaurants, offices, and nonwater-oriented indoor recreation facilities, such as fitness clubs. Excluded from this category are residential uses, boating facilities, and industrial uses, which are discussed in other subsections in this Section. Commercial developments are intense users of space because of extensive floor areas and because of facilities, such as parking, necessary to service them.

Policy 3.26.1 New commercial development located in shoreline areas should emphasize those uses which are water-oriented uses and activities as defined herein. Commercial development in shoreline areas should be encouraged in descending order of preference as follows

- 1) Water-dependent uses;
- 2) Water-related uses;
- 3) Water-enjoyment uses; and
- 4) Nonwater-oriented uses

Policy 3.26.2 Nonwater-oriented commercial uses should only be permitted when they provide public access and they provide ecological restoration, if appropriate and feasible, and they meet at least one of the following criteria:

- 1) The site is physically separated from the shoreline by another property, public right-of-way, or significant environmentally sensitive area.
- 2) The use is part of a mixed-use project or area that includes water-dependent uses.
- 3) Navigability is limited at the site.

Policy 3.26.3 Nonwater-dependent commercial uses should not be allowed over water, except where they are auxiliary to and in support of water-dependent uses and provided the size of the over-water construction is not expanded for nonwater-dependent uses.

Policy 3.26.4 The City should encourage water-oriented commercial development in the portion of the Urban Maritime environment south of the Maulsby Mudflats.

Policy 3.26.5 The City should encourage commercial development with a strong emphasis on public access to the shoreline in the Urban Multi-Use environment.

Policy 3.26.6 Nonwater-dependent commercial development should protect existing shoreline vegetation contributing to ecological functions and should enhance buffers as required by EMC 19.37. Water-dependent commercial development should mitigate impacts to shoreline vegetation.

Policy 3.26.7 Multiple use concepts which include open space and recreation should be encouraged in commercial developments.

Policy 3.26.8 Commercial development should be an aesthetic improvement to the surrounding area. Structures should not significantly impact views from upland properties, public roadways or other public areas.

Policy 3.26.9 Where nonwater-oriented commercial uses are permitted, the development should provide views of the shoreline from and through the site.

E. Forest Practices

Introduction. This section addresses Forest Practices in the Municipal Watershed Environment. It does not regulate Forest Practices within the City’s Urban Growth Boundaries.

Forest practices are those methods used for the protection, production and harvesting of timber. Trees along a body of water provide shade that insulates the waters from detrimental temperature change and dissolved oxygen release. A stable water temperature and dissolved oxygen level provide a healthy environment for fish and more delicate forms of aquatic life. Poor logging practices on shorelines alter this balance as well as result in slash and debris accumulation and may increase the suspended sediment load and turbidity of the water.

The City of Everett is a co-licensee (with the Snohomish County PUD) on FERC License #2157 (Jackson Hydroelectric Project). The license regulates activities within specific City-owned land at Lake Chaplain. This license requires mitigation for loss of wildlife habitat as a result of the completion of the hydroelectric project. The mitigation is guided by the “Wildlife Habitat Management Plan” that involves the management of five tracts of second growth coniferous forest on a 60 year harvest rotation (the Chaplain Tract is one of these tracts). Harvest rotations are designed to maximize habitat conditions for the wide range of wildlife species affected by the hydroelectric project.

Policy 3.27.1 Ensure compliance with the State’s Forest Practices Act (RCW 76.09) for all forest management activities. The Act covers all aspects of forest management activities including:

- Watershed analysis (Chapter 222-22 WAC)
- Road construction and maintenance (Chapter 222-24 WAC)
- Timber Harvesting (Chapter 222-30 WAC)
- Reforestation (Chapter 222-34 WAC)
- Forest Chemicals (Chapter 222-38)

Policy 3.27.2 Ensure compliance with FERC License #2157 (i.e., Wildlife Habitat Management Plan), where applicable.

Policy 3.27.3 Special attention shall be directed in logging and thinning operations to prevent accumulation of slash and other debris in contiguous waterways.

Policy 3.27.4 Timber harvesting practices, including road construction and debris removal, should be closely regulated to protect water quality.

Policy 3.27.5 Timber harvesting practices in shorelines of the state should be conducted to maintain the State Board of Health standards for public water supplies (Chapter 248-54, Public Water Supplies).

Policy 3.27.6 Logging should be avoided on shorelines with slopes of such grade that large sediment runoff will be precipitated, unless adequate restoration and erosion control can be expeditiously accomplished.

Policy 3.27.7 Logging within shoreline areas should be conducted to ensure water quality, the maintenance of buffer strips of ground vegetation, brush, alder and conifers to prevent temperature increases adverse to fish populations and erosion of stream banks.

F. Industry

Introduction. Industrial developments are facilities for processing, manufacturing and storage of finished or semi-finished goods. Ports are public enterprises providing services and facilities for waterborne commerce, and industrial development dependent upon waterfront locations or attracted to ports because of the variety of available transportation. Included in ports and industry are such activities as container ship terminals, transport and storage, ship repair and building, concrete and asphalt batching, tug and barge operations, etc. Excluded from this category and covered under other sections of the SMP are boating facilities, mining, log rafting and storage, utilities, solid waste disposal and transportation facilities.

Generally, the kinds of industries that seek locations at or near the shoreline may be grouped as:

- a. Those dependent upon deep-water shipping for inbound and outbound materials and products;
- b. Those closely linked to the foregoing by their dependence upon them for raw materials;

- c. Those using shallow-draft shipping such as barges and tugs;
- d. Those using large volumes of water in industrial processing;
- e. Those attracted to the shoreline because of availability of roads and rail, and attractiveness of the setting. (These have low priority.)

The master program aims to facilitate the development of water-dependent/water-related industrial activity in appropriate locations.

Policy 3.28.1 Future expansion projects should conform with the adopted City of Everett Comprehensive Plan, including the Shoreline Master Program and the Parks and Recreation Comprehensive Plan, and the Port of Everett's Comprehensive Scheme of Harbor Improvements.

Policy 3.28.2 Water-dependent/water-related industries which require frontage on navigable water should be given priority over other industrial uses.

Policy 3.28.3 Nonwater-related/nonwater-dependent industry should be located on upland sites or provide for substantial ecological restoration of the shoreline and public access.

Policy 3.28.4 Cooperative use of docking, parking, cargo handling, and storage areas should be given consideration in future shoreline industrial development.

Policy 3.28.5 In designating shoreline areas for water-dependent/water-related uses, or permitting such uses, strong consideration should be given to the available data on what the future need for such use may be.

Policy 3.28.6 The determination as to which lands are best suited for water-dependent/water-related industry should be made on the basis of the following location criteria: (Listing is not a listing of priority, but rather a listing of things that should be considered.)

- 1) Channel access
- 2) Rail access
- 3) Major road access
- 4) Size of land area
- 5) Physical characteristics of site (grade, soil, etc.)
- 6) Size of ownership units
- 7) Present use
- 8) Natural characteristics of site

Policy 3.28.7 Water-dependent/water-related industry should be planned so as to make industrial sites an attractive as well as an economically important use.

G. In-stream Structures

Introduction. In-stream structures are structures placed by humans within a stream or river waterward of the bank full width that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. In-stream structures function for the impoundment, diversion or use of water for hydroelectric generation and transmission (including both public and private facilities), flood control, irrigation, water supply (both domestic and industrial), transportation, utility service transmission, recreation, fish habitat enhancement, or other purpose. Both the structures themselves and their support facilities are covered by this section. This applies to their construction, operation and maintenance, as well as the expansion of existing structures and facilities. Provided however, that the City will not require the removal of existing legal structures and facilities, such as tide gates, or prohibit their expansion when it is not feasible to meet all standards.

Policy 3.29.1 To the extent reasonable, in-stream structures and associated facilities should provide for the protection and preservation of ecosystem-wide processes and ecological functions, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, and natural scenic vistas.

Policy 3.29.2 Proposals for in-stream structures and associated facilities should give careful consideration to the design, location, security and construction of access roads, impoundment structures and reservoirs, penstocks and power houses to minimize adverse impacts to the shoreline and the surrounding area.

Policy 3.29.3 Applications for in-stream structures should clearly document the need and purpose of the structure, environmental effects, and the suitability of the proposed site for the specific type of development.

Policy 3.29.4 All diversion structures should be designed to permit transport of bed load materials.

Policy 3.29.5 To minimize the potential for impacts to the shoreline environment, expansion of existing power generation facilities is preferred to construction of new power facilities within shoreline jurisdiction. When new sites are considered in shoreline jurisdiction, sufficient evidence should be presented to demonstrate that existing facilities are fully utilized or are not practically available.

Policy 3.29.6 Where reasonable, all non-water oriented facilities, such as staging and storage areas, switching yards, utility transmission lines should be located at least 200 feet landward of the ordinary high water mark.

Policy 3.29.7 Except for modifications to the City's Diversion Dam in the Sultan River, in-stream structures and associated facilities should be located and designed so they do not interfere with public navigation of the water course, including commercial and recreational navigation.

Policy 3.29.8 Except for modifications to the City’s Diversion Dam in the Sultan River, in-stream structures and associated facilities should be designed and located so as to not significantly impact publicly owned lands or waters used extensively for recreation. Impacts that should be avoided or minimized include the visual impact of the structure or facility, the intrusion of roads or utility corridors into undeveloped areas used for recreation, and the aesthetic impacts of reduced water noise and visual impacts from reduced water flows.

H. Log Storage and Rafting

Introduction. Available research findings show that log debris, bark, and wood leachates resulting from log handling in public waters can adversely affect water quality and fish and wildlife. The range of effects varies from mild to severe depending upon the specific characteristics of both the involved water body and log handling practices. Log storage and rafting can result in dense accumulations of wood debris, which can have a strong negative effect on benthic infauna and result in significant changes to epibenthos. Also, grounding of log rafts at low tide can affect the benthic community by compacting sediments, smothering organisms, and precluding access to the underlying sediments. In most instances where logs depreciate water quality, there are a number of practicable changes that can be made to improve conditions.

The City should encourage land storage and handling; however, log storage along Everett shoreline is currently a necessary practice for the purpose of handling, transporting, and maintaining adequate inventories of logs for manufacturing and port operations.

Policy 3.30.1 Easy let-down devices should be employed for placing logs in the water, thereby reducing bark separation and the generation of other wood debris.

Policy 3.30.2 Positive bark and wood debris controls, collection, and disposal methods should be employed at log dumps, raft building areas, and mill-side handling zones. This should be required for both floating and sinking particles.

Policy 3.30.3 Log dumps should not be located in water zones where positive bark and debris controls cannot be made effective.

Policy 3.30.4 Accumulations of bark and other debris on the land and docks around dump sites should be kept out of the water.

Policy 3.30.5 New log storage areas should be on dry land and paved.

Policy 3.30.6 Expansion of existing log dumping, storage, or rafting areas should not be permitted if grounding will occur.

Policy 3.30.7 Where water depths will permit the floating of bundled logs, they should be secured in bundles on land before being placed in the water. Bundles should not be broken again except on land or at destination.

Policy 3.30.8 Dry land log storage facilities should provide measures for reducing potential impacts on adjacent areas resulting from dust, noise, lighting, and visual impact.

I. Mining

Introduction. Mining is the removal and primary processing of naturally occurring material from the earth for economic use. For purposes of this definition, “processing” includes screening, crushing, stockpiling, all of which utilize materials removed from the site where the processing activity is located. Mining activities also include in-water dredging activities related to mineral extraction, but not to dredging approved to accommodate permitted uses or navigation. Processing does not include general manufacturing, such as the manufacture of molded or cast concrete or asphalt products, asphalt mixing operations or concrete batching operations (see “Industry” for standards relating to these uses). Mining can result in short-term and long-term significant ecological impacts to shoreline ecological functions or ecosystem-wide processes.

Policy 3.31.1 Mining should be prohibited in Everett’s shorelines, except as allowed as an incidental activity in the Municipal Watershed Environment.

J. Municipal Watershed Utilities

Introduction. This section addresses the City’s water system utility in the Municipal Watershed Environment separately from other utilities due to the unique nature of activities associated with provision of a public water supply, and the inevitable need for facilities within and adjacent to waters of the state. Activities within the Municipal Watershed environment must comply with all regulations other than those in EMC 19.33D.270 Utilities, including, but not limited to, In-stream Structures and Forest Practices.

The Sultan River is the source of water for Everett’s water utility. Lake Chaplain Reservoir was formed by construction of two dams in a side valley near the Sultan River. A concrete diversion dam constructed in the Sultan River originally diverted water to the Reservoir. However, since construction of the Jackson Hydropower Project and raising of Spada Lake Reservoir, water is diverted to Lake Chaplain Reservoir via a pipeline from the powerhouse. Now, under normal operating conditions, water from the Jackson power house is directed back to the Sultan River through Tunnel No. 1 to the diversion dam to maintain in-stream flows for fish.²⁸ A pump station and a water filtration plant are located immediately south of the Lake Chaplain Reservoir. Four large-diameter transmission pipelines and two tunnels deliver water from the plant to customers throughout Everett’s service area. Other facilities and activities associated with the water supply include, but are not limited to, roads, emergency power generation, a backwash solids drying bed,²⁹ and a disposal area for dried backwash solids.

The City plans many improvements to the City’s water supply and treatment facilities over the next 20 years. Work in shoreline jurisdiction may include rehabilitation of Diversion Tunnel

²⁸ Water is routed from Spada Reservoir to the Jackson power house. Then part of the water is routed back to the west end of tunnel 1. There the water is split with part of it going into Chaplain Reservoir and the rest going back through Tunnel 1 and outletting at the diversion dam and released into the Sultan River for fish flows.

²⁹ For backwash solids from the filter plant wash water pond.

No. 1, Tunnels No. 2 and 3 and the Portals 1- 6³⁰, and piping improvements at Chaplain Reservoir. Over the long term, from 2007-2020, the City will need to expand the capacity of the Water Filtration Plant, and rehabilitate/modify the Diversion Dam. A new transmission line, the cross-tie pipeline that will connect the north and south corridor transmission lines, will increase overall system capacity and improve the transmission system reliability. Other improvements that may be required include repair and maintenance of pipes; modifications of portals; modification of the screen house/intake structure; modification of the spillway on the Lake Chaplain Reservoir south dam; modification, repair and maintenance of the dam faces; repair and modification of the siphon in Lake Chaplain Reservoir, expansion of the backwash solids drying bed and the disposal site, and maintenance and repair of a road and pipeline that runs alongside the Sultan River from the diversion dam to Portal 1 of Tunnel 1. Many of the improvements will require work within Lake Chaplain Reservoir and the Sultan River, while other activities will be located away from the water's edge.

In the past, gravel extraction occurred within shoreline jurisdiction to construct a drying bed for backwash solids at Lake Chaplain Reservoir. The gravel removed was eventually placed over the north side of the north dam. A Substantial Development Permit was issued in 1995 to allow this material to be excavated. The permit also allowed mining to expand the backwash solids disposal site. The materials from both areas are to be used to construct roads associated with forest practice activities stipulated by the Wildlife Habitat Management Plan under the FERC license (Article 53) for the Jackson Hydroelectric Project (see Section 1.8). Future expansion of the backwash solids drying bed and the disposal site may be necessary. If so, it is likely that the gravel/materials in the expansion area would be mined a year or so before construction of the expansion, and the excavated materials used to construct or maintain roads associated with Forest Practices. Mining activity within shoreline jurisdiction should be permitted only as necessary to maintain an adequately sized backwash solids drying bed and disposal site at the filtration plant/Lake Chaplain Reservoir.

Policy 3.32.1 Mining permitted in the Municipal Watershed environment should only be as necessary to maintain a safe and adequate water supply and to implement the Wildlife Habitat Management Plan.

Policy 3.32.2 A buffer strip should be provided to control runoff between a mining operation and any surface water, creeks, drainage ways, or swales which could be adversely affected. The buffer currently provided between Lake Chaplain Reservoir and the backwash solids drying bed should not be reduced.

Policy 3.32.3 New transmission lines should utilize existing transportation and utility sites, rights-of-way, and corridors whenever reasonably possible, rather than creating new corridors. Joint use of rights-of-way and corridors should be encouraged.

³⁰ Tunnel 1 runs through the mountain between the Sultan River and Lake Chaplain Reservoir. Portal No. 1 is on the east (Sultan River) end. Portal 2 is on the west (Lake Chaplain Reservoir) end. Tunnels No. 2 and 3 run between Lake Chaplain Reservoir and Woods Creek. Portals 3 and 5 are at the east (Lake Chaplain Reservoir) end. Portals 5 and 6 are at the west (Woods Creek) end.

Policy 3.32.4 Utilities should be located and designed to minimize harm and mitigate impacts to critical areas, ecological functions, and ecosystem-wide processes.

K. Parking

Introduction. Parking is the temporary storage of automobiles or other motorized vehicles. Parking, loading, and service area requirements are found in the City of Everett Zoning Code and the Public Works Design and Construction Standards and Specifications Manual.

Policy 3.33.1 Parking in shoreline areas should directly serve an approved shoreline use.

Policy 3.33.2 Parking facilities should be located and designed to minimize adverse impacts, including those related to stormwater run-off, water quality, visual qualities, public access, and vegetation and habitat maintenance.

Policy 3.33.3 Parking should be planned to achieve optimum use. Where possible, parking should serve more than one use (e.g. serving recreational use on weekends, commercial uses on weekdays).

Policy 3.33.4 Parking should be located landward of the primary shoreline use.

Policy 3.33.5 The City should allow public viewing of shorelines from vehicles.

L. Recreational Development

Introduction. Outdoor recreation is any leisure activity that takes place within the out-of-doors or natural environment. Water-oriented activity accounts for a very high proportion of outdoor recreation pursuits in the Puget Sound area. The natural resources of scenic vistas, lakes, rivers, and salt water areas provides endless opportunities for both active and passive leisure involvement.

Since the inception of Everett as a major urban center (1892), public water access and waterfront recreation have been severely restricted due to the industrial nature of the early development. The challenge now is to increase the availability of publicly accessible salt water, river front, streams, and lakes.

This section applies to both publicly and privately owned shoreline facilities intended for use by the public or a private club, group, or association. It addresses both outdoor recreation and water-oriented recreation buildings, such as the rowing facility at Langus Riverfront Park and interpretive centers. Nonwater-oriented indoor recreation facilities, such as fitness facilities are addressed under Section 5.5 Commercial Development.

Policy 3.34.1 Priority should be given to developments which provide recreational uses and other improvements facilitating public access to the shorelines.

Policy 3.34.2 Water-dependent recreational uses should be given priority over other types of recreational use. Where nonwater-oriented recreational uses are permitted, they should include public access and environmental restoration where appropriate.

Policy 3.34.3 Shoreline recreational uses should accommodate a balance of active and passive uses.

Policy 3.34.4 Shoreline recreational uses should be designed and managed to ensure that activities during peak use periods do not significantly degrade ecological functions.

Policy 3.34.5 In designating shoreline areas for recreation activity or permitting developments in shoreline areas, consideration should be given to the recommendations of the Everett Parks and Recreation Comprehensive Plan.

Policy 3.34.6 Shoreline parks, recreation areas, and public viewing points should be linked by an integrated system of paths and bicycle lanes which provide substantial public access.

Policy 3.34.7 Recreational uses should be permitted in floodplain areas.

Policy 3.34.8 All recreational developments should make adequate provisions for:

- 1) Vehicular and pedestrian access, and parking both on and off-site;
- 2) Proper water, solid waste, and sewage disposal methods;
- 3) Security and fire protection;
- 4) The prevention of trespass onto adjacent properties, including but not limited to landscaping, fencing and posting of property; and
- 5) Buffering of such development from adjacent private property.

Policy 3.34.9 The concentration of recreation use pressure at a few points along the shoreline should be avoided by encouraging the development of dispersed recreation areas.

Policy 3.34.10 The use of off-road all-terrain vehicles should be restricted or prohibited in shoreline jurisdiction where they would cause impacts to wildlife, erosion, and conflicts with other activities.

M. Residential Development

Introduction. Residential development means one or more buildings or structures which are designed for or intended to be used to provide a place of abode for human beings, including single-family residences, duplexes, and multiple family residential developments, together with accessory uses and structures normally applicable to residential uses including but not limited to garages, sheds, utility services, recreation facilities, and parking. Note that shoreline modification activities, including docks are addressed in Section 6 of this SMP and are not considered accessory structures.

Both single family and multiple family residential uses occur in Everett's shorelines. Single family uses in shoreline jurisdiction are located north and west of Silver Lake, around Lake

Stickney, above Maulsby Swamp, along Port Gardner Bay, and along Lowell-Larimer Road. Multiple family development occurs south and east of Silver Lake. In the future, multiple family development may also occur in the Multi-Use Environment.

Note that live-aboards are addressed under Boating Facilities, rather than in this section.

In most cases, a substantial development permit is not required for the construction of an individual single family residence or normal appurtenances to a single family residence (see WAC 173-27-040(2)(g)). Although these structures are exempt, compliance with the Shoreline Master Program is still required. All multiple family developments, subdivisions, short subdivisions, and non-exempt accessory structures are not exempt, and require a Substantial Development Permit.

Policy 3.35.1 In order to preserve and protect environmentally sensitive areas, planned residential developments or cluster developments should be considered.

Policy 3.35.2 Residential development over water should be prohibited.

Policy 3.35.3 Residential development should be designed to preserve and enhance existing shoreline vegetation, control erosion and protect water quality during and after construction.

Policy 3.35.4 Residential development should be designed to preserve views and normal public use of the shoreline.

N. Signs, Outdoor Advertising

Introduction. Signs are any device, structure, fixture, placard, painted surface, awning, banner or balloon using graphics, lights, symbols and/or written copy designed specifically for the purpose of advertising, identifying or promoting the interest of any person, institution, business, event, product, goods or services: provided, that the same is visible from any street, way, sidewalk or parking area open to the public. Signs may be pleasing or distracting, depending upon their design and location. A sign, in order to be effective, must attract attention; however, a message can be clear and distinct without being offensive. There are areas where signs are not desirable, but generally it is the design that is undesirable, not the sign itself. The provisions of this Section do not apply to publicly owned signs whose purpose is safety, direction, or information.

Policy 3.36.1 Off-premise outdoor advertising signs and billboards should not be considered as an appropriate use of the shoreline area.

Policy 3.36.2 Signs should not block or otherwise interfere with visual access to the water or shorelines. Signs should be placed against sides of buildings whenever possible to minimize the visual obstruction of the shoreline.

Policy 3.36.3 The design of signs should not reduce vehicular or pedestrian safety.

O. Solid Waste Disposal and Collection

Introduction. This section covers solid waste landfill and in-water disposal, transfer stations, and incidental refuse collection.

Solid waste landfill and in-water disposal activity means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any exposed solid or hazardous waste on any land area or in the water. Solid waste includes all putrescible and non-putrescible solid and semi-solid wastes, including but not limited to garbage, rubbish, ashes, industrial waste, wood wastes, swill, demolition and construction wastes, abandoned cars and parts, household appliances, and other discarded commodities. Solid waste does not include sludge, sewage, energy recovery, dredge material or agriculture wastes.

Solid waste transfer stations are facilities where non-hazardous solid waste is delivered by public agencies, businesses or individuals and transferred and/or sorted into other containers to be transported to another location of ultimate disposal. A solid waste transfer station may include provisions for extraction of recyclable or reusable materials, as well as collection facilities for recyclable materials.

Solid waste collection facilities are normal and incidental to permitted shoreline activities and include garbage containers, dumpsters, and recycle containers.

Policy 3.37.1 Solid waste landfill and in-water disposal activities and facilities should be prohibited in shoreline areas.

Policy 3.37.2 Solid waste collection facilities should be required for all shoreline uses. Garbage containers, dumpsters and recycling facilities should be sited and designed to prevent impacts to water quality, aesthetics and surrounding uses.

Policy 3.37.3 Solid waste transfer stations should be permitted in shoreline jurisdiction only when designed to eliminate contact of the refuse with the ground, to avoid impacts to water quality, to be compatible with adjacent shoreline properties and waterways, and to mitigate aesthetic impacts.

P. Transportation Facilities

Introduction. Transportation facilities are those structures and developments that aid in land and water surface movement of people, goods, and services. They include streets and highways, bridges, bikeways, trails, railroad facilities, ferry terminals, airports, intermodal facilities and other related facilities. Their construction can limit access to shorelines, impair the visual qualities of water-oriented vistas, expose soils to erosion, and retard the run-off of flood waters. Along Everett's shoreline, the repair and maintenance of the above facilities has a potential for adversely affecting shoreline areas.

Policy 3.38.1 When feasible, major highways, freeways, and railways should be located away from the shoreline, except in the servicing of commercial, port, and heavy industrial areas.

When transportation facilities must be located in shorelines, they should be located and designed to minimize and mitigate impacts to shoreline resources.

Policy 3.38.2 All debris, overburden, and other waste materials from construction and maintenance should be disposed of in such a way as to prevent their entry by erosion from drainage, high water, or other means into an adjacent water body.

Policy 3.38.3 Street locations should be planned to fit the topography so that minimum alterations of natural conditions will be necessary.

Policy 3.38.4 Street locations should be planned to minimize the number of waterway crossings.

Policy 3.38.5 Scenic corridors with public streets should have provision for safe pedestrian and other non-motorized travel. Also, provision should be made for sufficient viewpoints, rest areas and picnic areas in public shorelines.

Policy 3.38.6 New and expanded transportation facilities in shoreline areas should be designed and landscaped to minimize their visual impacts.

Policy 3.38.7 New and expanded public streets in shoreline areas should include facilities for pedestrians, bicycles, and public transportation, where feasible.

Policy 3.38.8 Approval of large-scale port or industrial projects should be granted only after identification and evaluation of the following: capacity of existing transportation system, and impact of an expanded transportation system to serve these areas.

Policy 3.38.9 Existing city, county, and state streets and rights-of-way which dead-end on a shoreline should be utilized and maintained for increasing public visual and physical access to the water.

Policy 3.38.10 Joint use of transportation corridors within shoreline areas for streets, utilities and non-motorized forms of transportation should be encouraged.

Policy 3.38.11 Maintenance or repair work carried out on streets and the railroad lines along our shoreline should be conducted in a manner which minimizes the impact on water quality, public utilization of shoreline area, and ecological functions and ecosystem-wide processes.

Policy 3.38.12 New transportation facilities should be located and designed to minimize the need for shoreline stabilization measures.

Policy 3.38.13 The expansion of railroad facilities should be discouraged in the Urban Conservancy Environment along Port Gardner Bay.

Q. Utilities

This Section does not apply to utilities in the Municipal Watershed Environment. They are addressed in Section J.

Introduction. Utilities are services and facilities which produce, transmit, carry, store, process, or dispose of electric power, gas, sewage, stormwater, water, communications, and oil. Utilities are also comprised of sewage treatment facilities (including bio-solids management), energy recovery plants, etc. At this time the most feasible methods of transporting most utilities are through lineal pipelines, cable and wire, except that communications facilities increasingly utilize above-ground antennas. Installation of these utilities necessarily disrupts the landscape, but can usually be planned to have minimal permanent visual and physical effect on the environment when operational. Minor on-site utilities serving a primary use, such as a water line to a residence or industrial use, are “accessory utilities” and shall be considered a part of the allowed use.

Because Everett is surrounded on three sides by Shorelines of the State, it is inevitable that linear utilities, such as sewer lines, water transmission and distribution lines, natural gas transmission and distribution lines, and electric power lines will be located in shoreline areas as they cross the Snohomish River or other water bodies. In addition, some of these facilities will be needed in shoreline areas in order to serve development permitted in shoreline areas. Everett’s Water Pollution Control Facility has historically been located on Smith Island in shoreline jurisdiction. It is not feasible for this facility to be relocated, and it is expected that this facility will be expanded and upgraded on the current site.

Policy 3.39.1 Utilities should be located to meet future needs and serve areas planned to accommodate this growth, while minimizing conflicts with existing shoreline uses.

Policy 3.39.2 Utilities should utilize existing transportation and utility sites, rights-of-way, and corridors whenever reasonably possible, rather than creating new corridors. Joint use of rights-of-way and corridors should be encouraged.

Policy 3.39.3 Utilities should be located and designed to minimize harm and mitigate impacts to critical areas, ecological functions, and ecosystem-wide processes.

Policy 3.39.4 Nonwater-oriented utilities facilities or portions of those facilities should not be permitted in shoreline areas unless it can be demonstrated that no other reasonable option is available, except that future expansion and upgrades of the City’s Water Pollution Control Facility shall be permitted provided all other requirements of this SMP are met.

Policy 3.39.5 Development of underwater pipelines and cables on tidelands should be discouraged except for deepwater outfalls and facilities where no other reasonable alternative exists.

Policy 3.39.6 Wherever reasonable, utility easements should be utilized public access.

Policy 3.39.7 New utility installations in the shoreline area should be designed to be aesthetically pleasing and to not significantly impact views from upland properties, public streets, or other public areas.

Policy 3.39.8 When fully operational, new storm drainage and sanitary sewer systems operating in shoreline areas should not adversely affect water quality nor interfere with use of the water and shoreline areas. Impacts to water quality during construction should be mitigated.

V. Shoreline Modification Activities Policies and Regulations

A. General Shoreline Modification

Introduction. Shoreline modification means those actions that modify the physical configuration of qualities of the shoreline area, usually through the construction of a physical element. Shoreline modification activities include actions undertaken to stabilize shorelines, such as construction of bulkheads; clearing, grading and landfill; application of chemicals; beach and habitat enhancement; dredging; and construction of structures such as weirs, dikes, piers and docks. Shoreline modification activities are generally construction actions undertaken in preparation for, or in support of, a shoreline use.

Historically, most of Everett’s urban shorelines have been highly modified to accommodate the railroad, industry, port, agriculture, recreation, and other uses. Shorelines have been diked and filled; and riprap, bulkheads, piles, and piers constructed. For Everett to efficiently protect and utilize its shoreline resource, it is reasonable to expect future shoreline modification activities.

Goal 3.40 Protect and restore ecological functions and ecosystem-wide processes to the extent feasible, while allowing shoreline modifications necessary to accommodate legally permitted uses.

Policy 3.40.1 Shoreline modifications should only be allowed to protect or support an existing or permitted use, or for the restoration of ecological functions. Modifications for speculative purposes, such as constructing a shoreline modification project prior to the assessment of the need for a modification, should not be allowed.

Policy 3.40.2 Preference should be given to those types of shoreline modifications that have a lesser impact on ecological functions.

Policy 3.40.3 Proposed shoreline modification activities should only be approved if studies completed by professionals document that significant ecological impacts will not result from the modification, that adjacent or down-current properties will not be significantly impacted, and that navigation will not be significantly impacted. Mitigation sequencing should be required.

B. Shoreline Stabilization and Flood Control Structures

(Rev. 3/17/2011)

Introduction. Shoreline stabilization includes actions taken to address erosion impacts to property and dwellings, businesses, or essential structures caused by, or associated with current, flood, tides, wind, or wave action. These actions include structural methods and nonstructural methods, such as setbacks. Structures, such as levees are used to protect land from flooding.

“Hard” structural stabilization measures refer to those with solid, hard surfaces, such as concrete bulkheads, while “soft” structural measures rely on softer materials, such as biotechnical vegetation measures or beach enhancement. There is a range of measures varying from hard to soft that include:

- seawalls
- bulkheads
- retaining walls and bluff walls
- concrete groins
- gabions
- rock revetments
- levees
- gravel placement
- anchor trees
- beach enhancement
- biotechnical measures
- vegetation enhancement

Generally, the harder the construction measure, the greater the impact on shoreline processes, including sediment transport, geomorphology, and biological functions. Rock, concrete and timber bulkheads result in loss of nearshore and riparian vegetation, burial of the upper beach, altered wave interaction with the shoreline, obstruction of the sediment moved along the shore by littoral currents, and indirect impacts on habitat resources for fish.³¹

Definitions

Bulkheads and seawalls are structures erected parallel to and near the ordinary high-water mark for the purpose of protecting adjacent uplands from the action of waves and currents, or to protect the perimeter of a fill. Bulkheads and seawalls constructed of lumber and piling, reinforced concrete, rock, and steel. They are either solid or open-pile construction with varying slope faces. Wood bulkheads usually consist of posts and planks, large logs, or continuous rows of posts. Concrete walls are commonly vertical and occasionally incorporate a cap to deflect wave splash away from shore. Near-vertical rock walls (rockeries) are among the most common structures built today, and typically consist of two or three tiers of large boulders.³²

While bulkheads and seawalls may protect the uplands, they do not protect the adjacent beaches, since in many cases they increase the rate of erosion of the sand in front of the structures or prevent the natural functions of feeder bluffs.

³¹ Shipman, Hugh. *Shoreline Armoring on Puget Sound*. In *Puget Sound Notes No. 40, March 1997*.

³² Shipman, Hugh, Washington Department of Ecology. *Shoreline Armoring on Puget Sound*. *Puget Sound Notes No. 40, March 1997*.

Levee means a large dike or embankment, often having an access road along the top, which is designed as part of a system to protect land from floods.

Gabions are structures composed of masses of rocks, rubble or masonry held tightly together usually by wire mesh so as to form blocks or walls. Gabions are sometimes used on heavy erosion areas to retard wave action or as foundations for breakwaters or jetties.

Groins (Also referred to as a Spur Dike or Rock Weir) are barrier type structures extending from the backshore or stream bank into a water body for the purpose of protection of a shoreline and adjacent upland by influencing the movement of water and/or deposition of material. Groins can preserve or build an accretion beach by trapping littoral sand drift on the updrift side.

Rock Revetments are sloped solid walls constructed of riprap or other substantial material, placed on stream banks or marine shorelines to retard bank erosion from high velocity currents or waves respectively.

Anchor Trees are large woody debris or root wads generally placed on or into an eroding bank so that they protrude from the bank and into a river channel. The wood is often angled upstream to deflect flow away from the bank. Anchor trees may be used in combination with other stabilization measures, such as rip rap and vegetation enhancement.

Beach Enhancement means the maintenance, restoration or enhancement of a beach to control erosion, protect/enhance existing public access/recreational areas, and/or restore or enhancing littoral aquatic habitats. Beach enhancement is usually accomplished by beach feeding, vegetation, drift sills, and other non-intrusive means. (Note that new beach creation for public access and recreational use is covered under Landfill.)

Biotechnical Measures include the use of hard measures in combination with vegetation enhancement. For example, vegetation can be planted in combination with riprap.

Vegetation Enhancement includes the use of vegetation, such as willow stakes, planted on a bank or levee to reduce erosion. The vegetation creates drag forces opposing the water flow which dissipate energy and reduce flow velocity. Vegetation also protects against surface erosion and slope failure.³³

Normal Maintenance and Repair of Shoreline Stabilization Measures include the patching, sealing, or refinishing of existing structures, the replenishment of sand or other material that has been washed away, and the replacement of less than twenty percent of the existing structure. Normal maintenance and normal repair are limited to those actions that are typically done on a periodic basis. Construction that causes significant adverse impacts is not considered normal maintenance and repair.

Replacement of Shoreline Stabilization Measures. As applied to shoreline stabilization, “replacement” means the construction of a new structure to perform a shoreline stabilization

³³ Levee Armoring: Woody Biotechnical Considerations for Strengthening Midwest Levee Systems. Douglas Wallace, Clifford Baumer, John Dwyer, Frank Hershey

function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

Policy 3.41.1 The design of shoreline stabilization facilities should provide for the long term multiple use of shoreline resources and public access to public shorelines.

Policy 3.41.2 New development activities should be located and designed to prevent or minimize the need for shoreline stabilization measures.

Policy 3.41.3 New and replacement shoreline stabilization structures should consist of the softest measure that will protect existing uses and proposed development.

Policy 3.41.4 Mitigation should be required for impacts resulting from new shoreline stabilization activities that are not part of a restoration proposal. Shoreline stabilization measures that will result in significant adverse impacts, even with mitigation, should not be permitted. *(Rev. 3/17/2011)*

C. Breakwaters

Introduction. Breakwaters are protective structures usually built off-shore and aligned parallel to the shore to protect development and uses associated with beaches, bluffs, dunes, moorages or developed harbor areas from wave action. However, because off-shore breakwaters are costly to build, they are seldom constructed to protect the natural features alone, but are generally constructed for navigational purposes. Breakwaters can be either rigid or floating and may be connected to the shore or not. The rigid breakwaters, which are usually constructed of riprap or rock, have both beneficial and detrimental effects on the shore. All breakwaters eliminate wave action and thus protect the shore immediately behind them.

Breakwaters along Everett's shoreline are intended primarily to protect waterfront industrial activity and recreational activity (pleasure boat moorage). Everett has one primary breakwater (Jetty Island) which does undergo rehabilitation depending upon the weather factors which it has to endure. The following policies are provided as a guide for future breakwater activity along Everett's shoreline.

Policy 3.42.1 Breakwater design and construction should be of such a nature that the movement of sand, circulation of water, and biological communities are not adversely affected.

Policy 3.42.2 The availability for public use of the shoreline and water surface should be a strong consideration in allowing future breakwater construction.

Policy 3.42.3 Natural sequential actions or planned projects relating to breakwater construction will be identified and discussed prior to permitting breakwaters to be built along Everett's shoreline. Before a permit for breakwater construction can be issued, the maintenance period and anticipated subsequent construction activities must be identified.

Policy 3.42.4 Multiple use concepts are to be strongly encouraged in the construction of both private and public breakwaters along our shoreline.

Policy 3.42.5 The design and construction of breakwaters should address impacts to ecological processes and critical areas. Mitigation sequencing should be required.

Policy 3.42.6 Breakwaters should be allowed only where necessary to support water-dependent uses, public access, and shoreline stabilization.

D. Dredging and Dredge Material Disposal

Introduction. NOTE: Maintenance dredging operations, those carried out on a regularly occurring basis, are exempt from the Shoreline Permit Process. However, this activity must still be conducted in a manner which is consistent with the policy of the Shoreline Management Act and the City of Everett’s Shoreline Master Program.

Snohomish River Federal Navigation Channel

The Port of Everett operates an active deep water port facility served by a federal navigation channel which runs six miles upstream (Figure 1.5). The channel is maintained by the US Army Corps of Engineers through sponsorship of the Port of Everett. Approximately 150,000 cubic yards of dredged materials are removed from the navigation channel on an average annual basis. In addition, the Port carries out its own dredging activities in waterways under its jurisdiction, including those waterfront areas along the east side of the navigation channel from 4th Street south to the end of the deep water terminal. In addition, smaller property owners have dredged to gain access to the navigation channel and operate water-dependent businesses. Maintenance dredging is also required for these activities.

As dredging sponsor for the navigation channel, the Port of Everett is responsible for providing appropriate placement sites for dredged sediment. The Washington State Department of Natural Resources is the owner of the dredged material and also has authority to designate the placement of the material. Historically, dredging in the Everett area has provided materials for the creation of a number of areas. These include Jetty Island, the East Waterway fill, 14th Street Marine area, the base of 1-5 between Everett and Marysville, and the Port of Everett's Hewitt Avenue terminal. Future expansion of port, water-dependent industrial and commercial activity along our waterfront will require dredging and the employment of the dredging material as fill.

In the mid 1990s, a Beneficial Use Program was initiated by the Environmental Protection Agency and the Department of Ecology. The Program includes using dredged material from Everett and other locations for environmental remediation around Puget Sound. Beneficial uses are generally granted priority by the Department of Natural Resources for attaining the dredge material. If other options are not available at the time of dredging, dredge materials may be dumped at open water disposal sites in the Puget Sound area. These Puget Sound Dredge Disposal Analysis (PSDDA) sites are managed by a group of federal and state agencies (U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the Washington State Department of Ecology and the Washington state Department of Natural Resources). One of the PSDDA sites is located in Port Gardner Bay in an area that is approximately 420 feet deep. Material proposed for disposal at this site must meet or exceed rigorous testing and suitability requirements prior to gaining regulatory permission for disposal.

Securing of land sites for the depositing of dredge material is an involved and complex process involving a number of public and private entities.

There are segments of Everett's shoreline which could be made more usable through an organized dredge material placement plan. However, there are also shoreline areas which would be sensitive to placement of dredge material.

It is common for more material to be dredged than can be used immediately. In addition unplanned uses for fill often surface independent of the timing of dredging activities. This creates a need for dredge material rehandling facilities to store the materials short-term. Without this short-term storage, more dredge materials would likely be barged to deep water disposal sites or other locations. Currently, rehandling facilities are located at Langus Riverfront Park (Urban Conservancy Environment) and the Kimberly Clark Log Yard (Urban Industrial Environment). One or two new long-term rehandling sites may be needed in the future to replace these facilities.

Silver Lake

Dredging has been used to control a large milfoil infestation in Silver Lake. Though more recent removal has been completed by hand pulling, dredging may be used again for large infestations per the Silver Lake Milfoil Management Plan.

In the 1970's the City of Everett Parks Department did some dredging to increase swimming depths along the City beach. Since that time approximately two additional feet of sediments have filled in the City beach. During the past several years, the Parks Department has relocated the diving platform further out into the lake to maintain a 10 foot depth from the platform. The Parks Department would like to dredge the beach area to maintain swimming/diving opportunities.

In addition, sediments that accumulate at the outfall from Silver Lake Creek into the lake may need dredging in the future. To minimize the need for future dredging near the outfall, the City should evaluate the extension of the outfall further into the lake as identified in the draft Silver Lake Public Access Plan.

Temporary dredge material rehandling facilities may be needed for future dredging of Silver Lake.

Policy 3.43.1 Dredging and placement of dredged material should be conducted in a manner which avoids or minimizes impacts to water quality, critical areas, and ecological functions and ecosystem-wide processes.

Policy 3.43.2 New water-dependent development should be sited and designed to avoid or, if that is not possible, to minimize the need for new dredging.

Policy 3.43.3 Dredging for the purpose of establishing, expanding, or relocating navigation channels and basins should be allowed only when significant adverse impacts are minimized and when suitable mitigation is provided.

Policy 3.43.4 Maintenance dredging of established navigation channels and basins should be restricted to maintaining previously dredged and/or existing authorized location, depth, and width unless necessary to improve navigation.

Policy 3.43.5 Depositing of dredge material in water areas should be allowed only for the improvement of habitat, or where the alternative of depositing material on land is more detrimental to the shoreline resource than depositing it in the water, or as approved by state agencies at an approved deep water disposal site.

Policy 3.43.6 Beneficial use of dredge material for environmental remediation projects and ecological enhancement and restoration should be encouraged, and deep water disposal of dredge materials should be allowed only as a last resort after all other alternatives have been exhausted.

Policy 3.43.7 Land disposal of dredge material in diked areas should be conducted in a manner which minimizes the potential adverse effects on the adjacent water body. Design of the disposal ponds, dikes, or lagoon will consider location of the inlet and outlet to prevent short circuiting; installing adequate discharge controls; providing a capacity and a detention time based on the settling characteristics.

Policy 3.43.8 The City should work with the Port of Everett, the Corps of Engineers, and appropriate state agencies to develop a long-range plan for the deposit and use of dredge material on land and in water areas.

Policy 3.43.9 Dredging of bottom materials for the single purpose of obtaining fill material should be prohibited.

Policy 3.43.10 Dredge material rehandling/transfer sites which can be used on a continuing basis are encouraged.

Policy 3.43.11 Dredging should be allowed in Silver Lake for milfoil control and to maintain adequate depths for swimming and diving at the swimming beach.

E. Jetties and Groins

Introduction. Jetties and groins are structures usually built perpendicular to the shore or harborfront to modify or control sand movement. A jetty is usually constructed of steel, concrete, or rock and projects out into the sea at the mouth of a river for the purpose of protecting a navigation channel or a harbor, or to influence water currents and littoral drift. The type of construction depends on the foundation conditions, climate, and economic considerations. To be of maximum aid in maintaining the navigation channel, the jetty must be high enough to completely obstruct or direct the sand movement. The adverse effect of a jetty is

that sand is impounded at the updraft jetty and the supply of sand to the shore downdrift from the inlet is reduced, thus causing erosion.

Groins are barrier-type structures extending from the backshore seaward across the beach. The basic purpose of a groin is to interrupt the sand movement (littoral drift) along the shore to create or preserve a beach. Groins are often built in a series along the shore.

Groins can be constructed in many ways using timber, steel, concrete, or rock, but can be classified into basic physical categories as high or low, long or short, and permeable or impermeable. Groins are typically narrower than jetties.

The trapping of sand by a groin is done at the expense of adjacent downdrift shore, unless the groin is filled with sand to its entrapment capacity.

Jetties or groins could also be used in Lake Chaplain Reservoir to redirect water flows and allow more settling of sediments to enhance water quality.

Policy 3.44.1 The design and construction of jetties and groins should address impacts to ecological functions and ecosystem-wide processes. Mitigation sequencing should be required.

Policy 3.44.2 The multiple use of jetties and groins to increase public access and enjoyment of the shoreline should be encouraged.

Policy 3.44.3 The design of jetties and groins should be such that they will take into consideration the aesthetic quality of the shoreline.

Policy 3.44.4 Jetties and groins located waterward of the ordinary high water mark should be allowed only where necessary to support water-dependent uses, public access, enhanced potable water quality, and shoreline stabilization for permitted uses.

Policy 3.44.5 Jetties and groins should be located, designed, and constructed primarily to prevent damage to existing developments and discouraged for new developments.

F. Landfill

Introduction. A landfill is the placement of soil, sand, rock or other material (excluding solid waste) to create new land, tideland or submerged lands waterward of the ordinary high water mark, or on uplands or wetlands in order to raise the elevation. Most landfills destroy the existing natural character of a shoreline and can result in erosion and silting problems, impacts to habitat, along with the diminishing of the water surface area. (Note that placement of fill to replace shoreline areas which have been removed by wave action or normal erosion processes is covered under Shoreline Stabilization.)

Along Everett's shoreline, landfill activity has played a substantial role in providing a base for existing industrial, commercial and recreational activity, as well as habitat construction and

restoration projects. Dredge materials and forest products waste have been the primary sources of fill material.

Policy 3.45.1 Fills should be located, designed, and constructed to protect shoreline ecological functions and ecosystem-wide processes and public access to the shoreline.

Policy 3.45.2 Landfills landward of the ordinary high water mark should be permitted when necessary to accommodate uses listed as permitted in Section 4 of this SMP, and when significant impacts can be avoided or mitigated.

Policy 3.45.3 Landfills waterward of the ordinary high water mark should be permitted only when necessary to accommodate water-dependent uses; a transportation facility, utility or navigational structure with no feasible alternative; clean-up and disposal of contaminated sediments; mitigation/compensation actions and ecological restoration; and public access, including beach creation projects, and when significant impacts can be avoided or mitigated.

Policy 3.45.4 Conditional use permits should be required for landfills waterward of the ordinary high water mark, except for projects in the Urban Deep Water Port and Urban Maritime Environments, dike maintenance activities, and for habitat enhancement and restoration projects, including mitigation actions.

Policy 3.45.5 The shoreline areas should not be considered for sanitary landfills or the disposal of material which will cause water quality problems.

Policy 3.45.6 All perimeters of fills should be protected from erosion by shoreline stabilization measures, unless it can be amply demonstrated that there will be an environmental or public benefit for not employing any of these methods.

Policy 3.45.7 Placement of material for the maintenance, restoration or enhancement of beaches should not be considered to be landfills. Beach maintenance, restoration and enhancement is addressed in Section 6.2, Shoreline Stabilization.

Policy 3.45.8 The dredging policies as they relate to the disposal of materials and the landfill policies should be deemed inter-related.

Policy 3.45.9 All landfills in floodplains and floodways should be consistent with Section 30 of the Zoning Code – Floodplain Overlay Districts and Regulations.

Policy 3.45.10 Landfills should not adversely impact navigation.

G. Piers, Docks and Floats

Introduction. A pier or dock is a structure generally built from the shore extending out over the water or floating upon the water, which is used as a landing place for marine transport or for recreational purposes. A finger or spur pier is a minor extension from a primary pier. While floating docks generally create less of a visual impact than piers built on piling, they may be an

impediment to boat traffic and shore trolling. On lakes, a proliferation of piers along the shore can substantially reduce the usable water surface.

Recreational floats are also addressed in this section. These floats are anchored off shore platforms used for water-dependent recreational activities such as swimming and diving.

Piers and docks are utilized for commercial, industrial and recreational purposes. Often they serve several uses. Because of this, additional regulations concerning specific uses that may employ a pier or dock will be located in that specific section.

Piers and docks may modify the flow of water and sediments, and shade cast by overwater structures can adversely modify subsurface habitats and resources such as eelgrass.

Policy 3.46.1 Piers, docks and floats should only be permitted when necessary to accommodate water-dependent and water-related uses and public access. Water enjoyment uses may be allowed as part of a mixed-use development on over-water structures when they are clearly auxiliary to and in support of water-dependent uses.

Policy 3.46.2 Where a shoreline project utilizes docks and piers, cooperative use of these facilities by adjacent uses should be encouraged. Generally, multi-purpose piers are to be encouraged.

Policy 3.46.3 Piers should be permitted to the outer harbor line/pierhead line if necessary to accommodate a water-dependent or water-related use or public access.

Policy 3.46.4 In reviewing and approving piers and docks at a specific location, consideration should be given to, but not limited to, the following: effect on scenic values; effect on recreational and commercial boating; effect on ecological functions and critical areas resources such as eelgrass beds and fish habitats, and processes such as tidal currents and littoral drift and effect on public access.

H. Weirs

Introduction. Weirs are dams placed across a river or channel to raise or divert the water. Weirs are also used in upland areas for uses such as dredge placement sites, where the weirs placed in the dike walls allow water to flow out, leaving the solids behind.

Policy 3.47.1 Weirs should only be allowed where necessary to support water-dependent uses, including management of the City's public water system, or for the restoration of ecological functions.