

CITY OF LYNDEN

Shoreline Master Program

201914 Update

City of Lynden
300 4th Street
Lynden, Washington 98264
(360) 354-5532

Commented [DT1]: Change to appropriate update yr

DRAFT

TABLE OF CONTENTS

Commented [DT2]: Will update page numbers as needed with the "CLEAN" version after full adoption.

Table of Contents	3
1 Introduction	6
1.01 Requirements of the Shoreline Management Act	6
1.02 Master Program Development	6
1.03 Shoreline Jurisdiction	7
1.04 Pupos of the Shoreline Master Program.....	7
1.05 How the Shoreline Master Program is Used	9
1.06 Organization of this Shoreline Master Program	11
1.07 Relationship of this Shoreline Master Program to Other Plans.....	13
1.08 Title	15
2 Definitions	16
3 Shoreline Management Goals	29
3.02 Shoreline Use Element Goal	29
3.03 Economic Development Element Goal.....	29
3.04 Circulation Element Goal.....	29
3.05 Conservation Element Goal	29
3.06 Public Access Element Goal	29
3.07 Recreational Element Goal.....	30
3.08 Historical/Cultural Element Goal	30
3.09 Restoration Element Goal	30
4 Shoreline Environment Designations	31
4.01 Introduction	31
4.02 Urban Environment.....	31
4.03 Shoreline Residential Environment.....	32
4.04 Urban Conservancy Environment	33
4.05 Natural Environment.....	35
4.06 Aquatic Environment.....	36
4.07 Development Standards.....	37
5 General Policies & Regulations	40
5.01 Introduction.....	40
5.02 General Regulations.....	40
5.03 Archaeological and Historic Resources	40
5.04 Clearing and Grading.....	41
5.05 Environmental Impacts	43
5.06 Critical Areas – General Provisions	45
5.07 Critical Areas – Geological Hazard Areas.....	46
5.08 Critical Areas – Wetlands	47
5.09 Critical Areas – Fish and wildlife habitat conservation areas	52
5.10 Flood Hazard Management	56
5.11 Public Access.....	58
5.12 Vegetation Management	59
5.13 View Protection	61
5.14 Water Quality	62
6 Shoreline Use Policies & Regulations	65

6.01	Introduction	65
6.02	Agriculture.....	65
6.03	Aquaculture.....	65
6.04	Commercial Development	67
6.05	Industry	69
6.06	Instream Structures	71
6.07	Parking	71
6.08	Recreational Development	72
6.09	Residential Development.....	74
6.10	Transportation Facilities	77
6.11	Utilities.....	78
7	Shoreline Modification Policies & Regulations	80
7.01	Introduction	80
7.02	General Shoreline Modification Provisions.....	80
7.03	Dredging.....	81
7.04	Fill	83
7.05	Shoreline Habitat and Natural Systems Enhancement Projects	84
7.06	Shoreline Stabilization	85
8	Administration.....	90
8.01	Introduction	90
8.02	Local Review Planning Commission.....	90
8.03	Shoreline Substantial Development Permit and Exemptions	90
8.04	Revision of Permits	95
8.05	Shoreline Permit Appeals.....	97
8.06	Variances and Conditional Use Permits.....	97
8.07	Nonconforming use and Development Standards.	100
8.08	Rescinding a permit	101
8.09	Enforcement and Penalties	102
8.10	Master Program Review	102
8.11	Amendments to the Shoreline Master Program.....	103
8.12	Severability.....	103
8.13	Conflict of Provisions	103
9	Restoration Plan	104
9.01	Introduction	104
9.02	Degraded Areas, Impaired Functions and Sites with Potential for Restoration	104
9.03	Goals and Priorities for Restoration of Degraded Areas and Impaired Function.....	107
9.04	Existing and Ongoing Restoration Projects.....	108
9.05	Projects and Strategies to Meet Restoration Goals	109
9.06	Partnerships, Timelines, and Benchmarks for Implementing Restoration Projects and Achieving Restoration Goals.....	110
Appendix A	Map Folio	111
Appendix B	Cumulative Impacts	114
B.01	Introduction	114
B.02	Reasonably Foreseeable Future Development	115
B.03	Reaches of the Shoreline Inventory	115
B.04	Detailed Reach Analysis Tables	117
B.05	Ecological Functions at Risk from Future Developments	124
B.06	Anticipated Beneficial Effects.....	124

B.07	No Net Loss Summary	125
Appendix C	Federal & State Agency Contacts	126
C.01	FEDERAL.....	126
C.02	STATE.....	126

DRAFT

1 INTRODUCTION

1.01 REQUIREMENTS OF THE SHORELINE MANAGEMENT ACT

In 1971, the State of Washington legislature enacted the Shoreline Management Act ("the Act") (RCW 90.58) in order to address growing concern about the quality of the state's shoreline environments. This Act recognizes that "shorelines are among the most valuable and fragile" of the state's resources. The Act, and the City of Lynden, recognize and protect private property rights along the shoreline, while aiming to preserve the quality of this unique resource for all state residents.

The primary purpose of the Act is to provide for the management and protection of the state's shoreline resources by planning for their reasonable and appropriate use. In order to protect the public interest in the preservation of these shorelines, the Act establishes a planning program coordinated between the state and local jurisdictions to address the types and effects of development occurring along the state's shorelines. By law, the City is responsible for the following:

1. Development of an inventory of the natural characteristics and land use patterns along shorelines covered by the Act.
2. Preparation of a "Master Program" to determine the future of the shorelines.
3. Development of a permit system to further the goals and policies of both the Act and the local Master Program.

1.02 MASTER PROGRAM DEVELOPMENT

In July of 1973, an eight member Lynden Shoreline Management Citizen's Advisory Committee was appointed by the Mayor. The committee held eleven meetings in the course of nine months for the development of the City's first Master Program. The Washington State Office of Community Development aided in preparation of the program, through a Federal grant from the United States Department of Housing and Urban Development, and a state grant from the Washington State Department of Ecology.

The population of Lynden has grown since the original plan was adopted and the Urban Growth Area now includes significant portions of stream and river channels through land formerly used for agriculture. In order to proactively address the future development of land bordering waterways of the city, a new Shoreline Master Program was drafted reflecting the goals of the City's Comprehensive Plan, amended development approval process, current growth patterns and expected future development. The overall goal of this program is to achieve rational, balanced, and responsible use of our irreplaceable shorelines. This updated program was financed by the Department of Ecology.

1.03 SHORELINE JURISDICTION

1.03.01 City of Lynden Shorelands

1. There are numerous small streams and drainages within the city, however only the Nooksack River, Fishtrap Creek and associated wetlands are under the jurisdiction of this Master Program. Despite their importance to our local residents, Duffner Ditch and Kamm Creek are not included in the shoreline jurisdiction.
2. The Shoreline jurisdiction in Lynden includes the “shorelands” of the Nooksack River and Fishtrap Creek in the City of Lynden. As defined under the Shoreline Management Act, shoreland areas or shorelands are:

...those lands extending landward for two hundred 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; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology

1.03.02 Map Folio in the 2010 Lynden Shoreline Master Program Update

1. A map of the shoreline jurisdiction as described above for the City of Lynden can be found in the Map Folio Appendix A.
2. The map folio is to be used as a guide for the City, project applicants and/or property owners. The maps are for reference only. The City is responsible for determining the exact scope, extent and boundaries of any shoreline element such as jurisdiction boundaries, environmental designations and ordinary high water mark. The applicant is responsible for providing all necessary supporting data and information to allow the city to make such determinations.

1.04 PURPOSES OF THE SHORELINE MASTER PROGRAM

This Shoreline Master Program is created to protect and sustain the limited shoreline resources for the enjoyment of the city’s present and future residents, and visitors to Lynden. The city has shoreline resources of great value which ~~including~~ clean waters, fish, wildlife, riparian habitat and aquatic plants. The limited resources and outstanding visual and aesthetic qualities associated with our shorelines are very important to many different users. Housing, industry, recreation, commerce, agriculture and other users all desire the ability to access, develop or use our shorelines. In order to protect these resources, and the overall quality of our shoreline areas, there is a need for comprehensive planning and reasonable regulation of shoreline development.

Commented [DT3]: Scrivener’s error

1.04.01 The purposes of this Master Program are:

1. To carry out the responsibilities imposed on the City of Lynden by the Washington State Shoreline Management Act (RCW 90.58).

2. To promote the public health, safety, and general welfare by providing a guide and regulation for the future development of the shoreline resources of the City of Lynden.
3. To further, by adoption, the policies of RCW 90.58, and the goals of this Master Program, both which hereafter follow.

1.04.02 Legislative Findings and Washington Shoreline Management Act Policies

According to the Revised Code of Washington (RCW) 90.58.020, the Washington State Legislature finds the shorelines of the state are among the most valuable and fragile of the state's natural resources and that there is great concern throughout the state relating to their utilization, protection, restoration, and preservation. In addition, it finds that ever increasing pressures of additional uses are being placed on the shorelines, necessitating increased coordination in the management and development of the shorelines of the state. The legislature further finds that much of the shorelines of the state and uplands adjacent thereto are in private ownership and that unrestricted construction on the privately owned or publicly owned shorelines of the state is not in the best public interest; therefore, coordinated planning is necessary in order to protect the public interest associated with the shorelines of the state which, at the same time, shall be consistent with public interest. There is, therefore, a clear and urgent demand for a planned, rational, and concerted effort, jointly performed by federal, state, and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines.

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 ensure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in navigable water, will promote and enhance the public interest. This policy is intended to protect against adverse effects to the public health, the land and its vegetation and wildlife, and the water of the state and its aquatic life, while generally protecting public rights of navigation and its associated activities.

In the implementation of the policy of RCW 90.58.020, the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible, consistent with the overall best interest of the state and the people generally. To this end, uses shall be preferred that are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent on use of the state's shorelines. Alteration of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single family residences, ports, parks, marinas, piers, and other improvements facilitating public access to shorelines of the state, and industrial and commercial developments that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state.

Commented [DT4]: DOE Recommended: Moved from 1.04.03 as this applies to all Shorelines so is more appropriate in this location

Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline areas and interference with the public's use of the water.

1.04.03 Shorelines of Statewide Significance - the Nooksack River

The Shoreline Management Act designates certain shoreline areas as shorelines of statewide significance (RCW 90.58.030). Among the shorelines designated by the Act were "natural rivers or segments thereof as follows:

Any west of the crest of the Cascade range downstream of a point where the mean annual flow is measured at one thousand cubic feet per second (cfs) or more" and "those shorelands associated with" these waters.

The Nooksack River exceeds 1,000 cfs at the confluence with Glacier Creek and on the South Fork Nooksack River, at mouth of Hutchinson Creek. This indicates, that the Nooksack River in Lynden is designated as having statewide significance as are its shorelands and associated wetlands.

Shorelines thus designated are important to the entire state. Because the shoreline of the Nooksack River is a major resource from which all people in the state derive benefit, this master program gives preference to uses which favor public and long range goals. Accordingly, this program gives preference to uses which meet the principles outlined below, listed in descending order of preference. These principles are incorporated into the City of Lynden Shoreline Master Program:

1. Recognize and protect the statewide 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 shoreline.
6. Increase recreational opportunities for the public on the shoreline.

~~In the implementation of the policy of RCW 90.58.020, the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible, consistent with the overall best interest of the state and the people generally. To this end, uses shall be preferred that are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent on use of the state's shorelines. Alteration of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single family residences, ports, parks, marinas, piers, and other improvements facilitating public access to shorelines of the state, and industrial and~~

Commented [DT5]: Moved above.

~~commercial developments that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state.~~

~~Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline areas and interference with the public's use of the water.~~

1.05 HOW THE SHORELINE MASTER PROGRAM IS USED

The City of Lynden Shoreline Master Program is a planning document that outlines the City's shoreline goals and policies and establishes regulations for development occurring in that area.

In order to preserve and enhance the shoreline of the City of Lynden, all development proposals relating to the shoreline area ~~shall~~ should be evaluated in terms of the City's Shoreline Master Program. The City's Shoreline Administrator can provide assistance in identifying what materials should be submitted, if other permit applications should be submitted, etc. Some developments may be exempt from certain permit processes, while others may be required to conform to general or specific regulations, or others may require special permits to address their particular situation; ALL proposals for development within the shoreline area must comply with the policies and regulations established by the state Shoreline Management Act and adopted by Lynden in this Shoreline Master Program.

Commented [DT6]: Required Change: All development within shoreline jurisdiction is required to comply with the SMP per WAC 173-27-140.

The Shoreline Management Act (SMA) defines the content and goals that should be represented in the shoreline master program developed by each community. It is left to each community to develop, within these guidelines, the specific regulations appropriate to that community.

Under the SMA, all areas within the shoreline jurisdiction receive a shoreline environment designation. The purpose of the shoreline designation system is to ensure that all land use, development, or other activity occurring within the designated shoreline jurisdiction is appropriate for that area and provides consideration for the special requirements of that environment. Lynden has designated its shoreline in five shoreline environments: Aquatic, Natural, Urban Conservancy, Shoreline Residential, and Urban. These environments are described in Chapter 4: Shoreline Environment Designations.

1.05.01 Is A Permit Required?

The Lynden Shoreline Master Program addresses a wide variety of uses of the shoreline area. This thoroughness is intended to ensure that the Lynden shoreline area is protected from activities and uses that, if unmonitored, could be developed inappropriately and could cause damage to the ecological system of the shoreline, or cause the degradation of the aesthetic values of the shoreline that the community enjoys. The shoreline master program provides the regulatory parameters within which development may occur, or it states that the community considers a certain type of use or activity is unacceptable on the Nooksack River or Fishtrap Creek. It also states that a use or activity may be considered if a conditional review is applied for, but that the

community should be able to ensure that the development is carried out in such a way that the public's interest in protecting the shoreline is retained.

The shoreline master program (SMP) regulates "development" (defined in Chapter 2), and further defines what is considered "substantial development" and, therefore, requires a Shoreline Substantial Development Permit (SSDP), unless exempt. Some development may require a conditional use permit or a variance from the provisions of the master program. Review under the State Environmental Policy Act (SEPA) may also be required.

1.05.02 The Shoreline Permit

In order to simplify the application process for the applicant, the City of Lynden has adopted the Joint Aquatic Resources Permit Application, or "JARPA," as a part of its shoreline permit form. The JARPA provides a single application form that can be used to apply to the following agencies and departments for the following applications:

City of Lynden

- Shoreline Substantial Development, Conditional Use, Variance Permit or Exemption (within the Lynden shoreline jurisdiction)

Washington Department of Fish and Wildlife

- Hydraulic Project Approval (if project will use, divert, obstruct or change the natural flow or bed of any fresh or salt water of the state).

Washington Department of Ecology

- Section 401 Water Quality Certification (Corps of Engineers Nationwide Permit, FERC Hydropower license, and Corps of Engineers Individual Permit)
- Approval to Allow Temporary Exceeding of Water Quality Standards (if project will create a temporary exceeding of water quality criteria established by the state for in-water work, e.g., changes in turbidity from sediment disturbances and pH changes from concrete curing)

Washington Department of Natural Resources

- Aquatic Resources Use Authorization Notification (if project is on, crosses, or impacts the shorelands of a navigable water)

U.S. Army Corps of Engineers

- Section 404 Permit (if project involves a discharge or excavation of dredged or fill materials waterward of OHWM, in waters of the United States, including wetlands)

JARPA enables the applicant to fill out a single application packet that he or she can then forward to other agencies with jurisdiction over the development proposal. Use of the JARPA will simplify the application and review process for both the applicant and the project reviewer. The applicant will have only one application form to complete, and the various agency reviewers will receive the information they need to perform the review, and will know that the information provided to other agencies was consistent with what they received.

Other activities that could occur along the shoreline (starting bonfires, disposing or spilling/releasing of regulated or hazardous waste products, use of pesticides, activities within wetlands) may require other permits, review, or approval not identified here.

At the time of an initial inquiry or when a permit application is submitted, the City Shoreline Administrator will inform an applicant, to the best of the administrator's knowledge, of any additional regulations and statutes that may apply to the proposed project. The final responsibility for complying with such other statutes and regulations, however, shall rest with the applicant. A list of agencies, departments and phone numbers is provided in the Appendix C of this SMP. Questions about permits, licenses, or review may be directed to the Permit Assistance Center of the Washington Department of Ecology.

1.06 ORGANIZATION OF THIS SHORELINE MASTER PROGRAM

This Master Program is divided into nine chapters:

Chapter 1: Introduction provides general background information on the state Shoreline Management Act; the development of the Shoreline Master Program in Lynden; the Shoreline Jurisdiction; the purpose of the Shoreline Master Program; a general discussion of when and how a shoreline master program is used and how the shoreline permitting process and the State Environmental Policy Act process are related and conducted; and a list of other permits and review for shoreline activities that may also apply for activities within the shoreline area.

Chapter 2: Definitions provides definitions for terms found in this document.

Chapter 3: Shoreline Management Goals lists the general goals which guide the policies and regulations found in the Lynden Shoreline Master Program.

Chapter 4: Shoreline Environment Designation describes each environment along the City of Lynden shoreline and identifies designation criteria, management policies and designates specific areas of the shoreline jurisdiction for each environment. This chapter also includes development standards.

Chapter 5: Shoreline General Policies & Regulations addresses the policies and regulations that apply to all uses, developments, and activities in all shoreline environments of the shoreline jurisdiction. These regulations are intended to be used in conjunction with the more specific use and activity policies and regulations in the Lynden Shoreline Master Program.

Chapter 6: Shoreline Use Policies & Regulations provides policies and regulations for only specific uses and activities in shoreline areas. These regulations set physical development and management standards for development of each type of use.

Chapter 7: Shoreline Modification Policies & Regulations addresses activities that modify the physical configuration or qualities of the shoreline area. These

activities are undertaken in support of or in preparation for a permitted shoreline use. Typically, shoreline modification activities are related to construction of a physical element such as a dike, dredged basins, or fill,

Chapter 8: Administration provides the system by which the Lynden Shoreline Master Program will be administered, and provides specific information on the application process and criteria used in evaluating requests for shoreline substantial development permits, conditional use permits, and variances.

Chapter 9: Restoration Plan

Appendix A:: Map Folio

Appendix B: Cumulative Impacts

Appendix C: Federal and State Agency Contacts useful in administering shoreline permits.

1.07 RELATIONSHIP OF THIS SHORELINE MASTER PROGRAM TO OTHER PLANS

In addition to compliance with the provisions of the Shoreline Management Act of 1971, the Lynden Shoreline Master Program must be consistent with local plans and policy documents, specifically, the Lynden Comprehensive Plan and the City's Critical Areas Ordinance. The City's Shoreline Master Program must also be consistent with the regulations developed by the City to implement its plans, such as the zoning code, as well as regulations relating to flood hazard reduction, building construction and safety.

Submitting to the permitting process for a shoreline development or use does not exempt an applicant from complying with any other local, county, state, regional or federal statutes or regulations which may also be applicable to such development or use. Examples of activities that may require permits, review, or approval from other agencies are listed in the following table. Some of the activities for which these permits are required may not likely occur within the City of Lynden. The following list of permits is provided, however, as additional information about regulatory requirements that exist for various land use activities that may occur in the Lynden area.

<i>Agency</i>	<i>Authority/Jurisdiction</i>	<i>Types of Activity Requiring Permit</i>	<i>Permit</i>
Army Corps of Engineers	Sect. 404 of Clean Waters Act. Jurisdiction extends to Ordinary High Water Mark of all waters of the US and includes all adjacent wetlands	Discharge of dredged materials, fills, grading, ditch sidecasting, groins, road fills, beach nourishment, riprap, jetties, etc.	Section 404 Permit (some limited activities are covered by nationwide general permits)

Agency	Authority/Jurisdiction	Types of Activity Requiring Permit	Permit
Federal Emergency Management Agency (FEMA)	CFR 44, Part 60 This Ordinance applies to the areas designated as flood zones on FEMA's Federal Insurance Rate Map. The adopted FEMA ordinance enables City residents to acquire federal flood insurance and permits Lynden to be eligible to receive Federal Flood Disaster Funds.	All construction within and uses of the Floodplain must meet the standards established in the Lynden Floodplain Management regulations	Review for compliance with FEMA guidelines is conducted through enforcement of the Lynden Floodplain Management regulations
Washington Department of Agriculture	Varies	Use of pesticides by any means other than hand pumped device - varied restrictions apply depending on the ownership of the property receiving the pesticide, the type of pesticide, etc.	Varies
Washington State Department of Fish and Wildlife (DFW)	RCW 75.20.100-160. All fresh or salt water in the state	Work, construction, development or other activities that will change the natural flow or bed of any fresh or salt water in the state.	Hydraulic Project Approval (HPA)
Washington State Department of Natural Resources (DNR)	RCW 76.09. Waterbodies near forest activities	Forest activities relating to growing, harvesting or processing timber, road construction and maintenance, brush clearing, slash disposal	Forest Practice Approval
Washington State Department of Ecology (DOE)	Section 401, Clean Water Act	Any activity that might result in a discharge of dredge or fill material into water or wetlands, or excavation in water or wetlands that requires a federal permit.	Water Quality Certification
	RCW 90 (various chapters)	Withdrawal of surface or ground water.	Water Use Permit; Certificate of Water Right
	RCW 43.21C Determined by the scope of the project. See also: City of Lynden, SEPA.	SEPA is a process that provides a way to analyze and address the environmental impacts of a project and is geared to mesh with already existing permits, approvals, and/or licenses.	State Environmental Policy Act (SEPA) Review
	Water Pollution Control Act (RCW 90.48)	Act prohibits discharges of polluting matter to any waters of the state, including wetlands. A permit is required for any project potentially impacting state waters.	Various permits, including NPDES, Municipal Wastewater, and Septic permits.

Agency	Authority/Jurisdiction	Types of Activity Requiring Permit	Permit
City of Lynden	Chapter 16.08 Shoreline Master Program, Lynden Municipal Code	Chapter 4 SMP environmental designation Chapters 5 – 7 Shoreline policies and regulations	Shoreline Substantial Development Permit Shoreline Conditional Use Permit Shoreline Variance
	Title 15 Building and Construction, Lynden Municipal Code	Construction, alteration, moving, demolition, repair, maintenance and use of building or structure	Building Permit
City of Lynden (continued)	Chapter 16.12 Floodplain Management, Lynden Municipal Code	All development activity, including buildings, mining, filling, dredging, grading, paving, excavations, drilling operations, and storage of equipment or materials.	Floodplain Development Permit - review for compliance with this ordinance is conducted as a part of the development review and building permit process.
	Title 19 Zoning, Lynden Municipal Code	See Zoning Code	Variance Conditional Use Zone Change
	Chapter 16.16 Critical Areas, Lynden Municipal Code	Any development	Varies
	Chapter 16.05 State Environmental Policy Act, Lynden Municipal Code	All activity meeting the threshold identified in RCW 43.21C and WAC Chapter 197-11.	State Environmental Policy Act (SEPA) Review

1.08 TITLE

This document shall be known and may be cited as the Lynden Shoreline Master Program and may be abbreviated as “SMP”. This document may refer to itself as “this master Program”.

2 DEFINITIONS

Accessory use or accessory structure – Any structure or portion of a structure or use incidental and subordinate to the primary use or development.

Accretion – The growth of a beach by the addition of material transported by wind and/or water.

Adjacent lands – Lands adjacent to the shorelines of the state (outside of shoreline jurisdiction). The SMA directs local governments to develop land use controls (i.e., zoning, comprehensive planning) for such lands consistent with the policies of the SMA, related rules and the local shoreline master program (see Chapter 90.58.340 RCW).

Administrator – The Planning Director or his/her designee, charged with the responsibility of administering the shoreline master program.

Agriculture – The cultivation of the soil, production of crops, and/or raising of livestock, including incidental preparation of these products for human use. Noncommercial, small-scale individual or community gardening and the keeping of livestock is not considered agriculture.

Anadromous fish – Species, such as salmon, which are born in fresh water, spend a large part of their lives in the sea, and return to freshwater rivers and streams to procreate.

Appurtenance – A structure or development which is necessarily connected to the use and enjoyment of a single family residence and is located landward of the ordinary high water mark and also of the perimeter of any wetland. (, Normal appurtenances include a garage, deck, driveway, utilities, fences and grading which does not exceed two hundred fifty cubic yards (250) [except to construct a conventional drain field]) (see WAC 173-27-040(2g)).

Aquaculture – The commercial cultivation of fish, shellfish, and/or other aquatic animals or plants, including the incidental preparation of these products for human use.

Archaeological – Having to do with the scientific study of material remains of past human life and activities.

Architectural standards – Rules, regulations, or guidelines relating to the design, size, configuration or location of buildings and structures including setbacks, height, and bulk restrictions. It may include other structural design or configuration conditions required as part of a variance or conditional use permit intended to improve the compatibility between adjacent structures, activities, or uses.

Automobile wrecking – The dismantling or wrecking of motor vehicles or trailers, or the storage, sale or dumping of dismantled, or partially obsolete or wrecked vehicles or their parts.

Average grade level – The average of the natural or existing topography of the portion of the lot, parcel, or tract of real property which will be directly under the proposed building or

structure; *provided* that in case of structures to be built over water, average grade level shall be the elevation of the ordinary high water mark. Calculation of the average grade level shall be made by averaging the ground elevations at the midpoint of all exterior walls of the proposed building or structure (WAC 173-27-030(3)).

BMPs – see **Best Management Practices**.

Beach – The zone of unconsolidated material that is moved by waves, wind and currents, extending landward to the river or creek bank.

Beach enhancement/restoration – Process of restoring a beach to a state more closely resembling a natural beach.

Beach nourishment – The controlled placement on the beach of sand or gravel to augment inadequate sediment input by natural erosion processes, or to mitigate for the adverse impacts of shoreline erosion control measures.

Benthos – Benthos are living organisms associated with the bottom layer of aquatic systems, at the interface of the sediment (or substrate) and overlying water column. Benthos commonly refers to an assemblage of insects, worms, algae, plants and bacteria.

Best Management Practices (BMPs) – BMPs for stormwater are methods of improving water quality that can have a great effect when applied by numerous individuals. BMPs encompass a variety of behavioral, procedural, and structural measures that reduce the amount of contaminants in stormwater runoff and in receiving waters.

Bioengineering – See **Soil bioengineering**.

Biota – The animals and plants that live in a particular location or region.

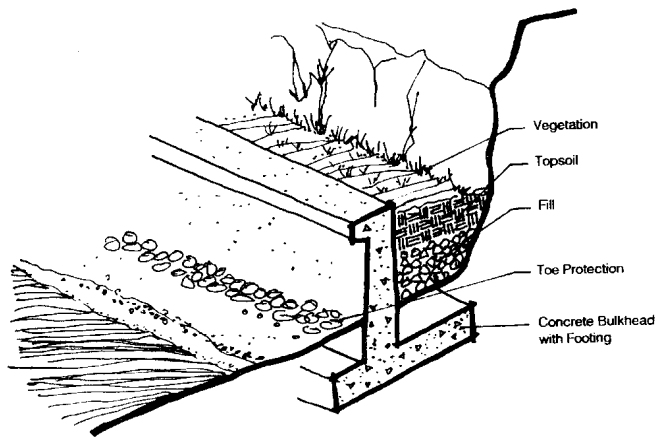
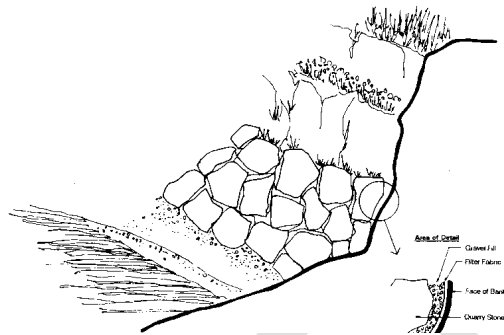
Bog – A wet, spongy, poorly drained area which is usually rich in very specialized plants, contains a high percentage of organic remnants and residues and frequently is associated with a spring, seepage area, or other subsurface water source. A bog sometimes represents the final stage of the natural process of eutrophication by which lakes and other bodies of water are very slowly transformed into land areas.

Buffer – A parcel or strip of land that is designed and designated to permanently remain vegetated in an undisturbed and natural condition to protect an adjacent aquatic, riparian or wetland site from upland impacts, to provide habitat for wildlife and to afford limited public access.

Building height – The vertical distance measured from average grade level to the highest point of a structure's roof or coping.

Bulkhead – A vertical wall constructed of rock, concrete, timber, sheet steel, gabions, or patent system materials. Bulkheads are generally placed parallel to and near the ordinary high water mark to retain an upland or fill area prone to gliding or sheet erosion, and to protect an upland from erosion by wave or current action. Rock bulkheads are often

termed vertical rock walls and similar to structures termed "revetments". (See figures 2.1 and 2.2 on next page).



CFR – Code of Federal Regulations.

CITY – means the City of Lynden.

Channel migration zone (CMZ) – The area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings.

Clean Water Act – The primary federal law providing water pollution prevention and control; previously known as the Federal Water Pollution Control Act. See 33 USC 1251 et seq.

Clearing – The destruction or removal of vegetative ground cover, shrubs and trees which may include, but is not limited to, root material removal and/or topsoil removal.

Commercial – Uses and facilities that are involved in wholesale or retail trade or business activities.

Conditional use – A conditional use is a use, development, or substantial development which is classified as a conditional use or is not classified within this master program.

Development – A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters of the state subject to Chapter 90.58 RCW at any state of water level (RCW 90.58.030(3d)). **“Development” does not include dismantling or removing structures if there is no other associated development or re-development.**

Commented [DT7]: Periodic Review Checklist: 2017 (b). Clarification of the definition of “Development”.

Development regulations – The controls placed on development or land use activities by a county or city, including, but not limited to, zoning ordinances, critical areas ordinances, all portions of a shoreline master program other than goals and policies approved or adopted under chapter 90.58 RCW, official controls, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances, together with any amendments thereto.

Development standards – Specific requirements placed on development, such as building height limits, shoreline setbacks, sewer requirements, etc., that are generally included as part of development regulations.

Dredge spoil – The material removed by dredging; also referred to as “dredge material”.

Dredging – Excavation or displacement of the bottom or shoreline of a water body. Dredging can be accomplished with mechanical or hydraulic machines. Most dredging is done to maintain channel depths or berths for navigational purposes; other dredging is for flood hazard reduction, water intake maintenance, or for cleanup of polluted sediments.

Enhancement – Alteration of an existing resource to improve or increase its characteristics and processes without degrading other existing functions. Enhancements are to be distinguished from resource creation or restoration projects.

Environmental impact statement (EIS) – A document which discusses proposed actions, alternatives, and impacts.

Erosion – The wearing away of land by the action of natural forces.

Excavation – Excavation is the artificial movement of earth materials.

Fair market value – The expected price at which the development can be sold to a willing buyer in an open market. For developments which involve nonstructural operations such as dredging, drilling, dumping, or filling, the fair market value is the expected cost of hiring

a contractor to perform the operation or where no such value can be calculated, the fair market value of the development shall include the fair market value of any donated, contributed, or found labor, equipment, transportation, materials or other costs incurred for the duration of the permitted project (WAC 173-27-030(8)).

Fill – The placement of soil, sand, rock, gravel existing sediment or other material (excluding solid waste) to create new land, or bottom land along the shoreline waterward of the ordinary high water mark or on wetland or upland areas in order to raise the elevation.

Float – A floating structure that is moored, anchored, or otherwise secured in the water off-shore and that is generally used for recreational purposes such as swimming and diving.

Floodplain – Synonymous with 100-year floodplain. The land area susceptible to being inundated by stream derived waters with a 1 percent chance of being equaled or exceeded in any given year. The limits of this area are based on flood regulation ordinance maps or a reasonable method that meets the objectives of the SMA (WAC 173-22-030(4)).

Floodway – Those portions of the area of a river valley lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually, said floodway being identified, under normal conditions, by changes in surface soil conditions or changes in types or quality of vegetative ground cover conditions. The floodway does not include lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state. The limits of the floodway are based on flood regulation ordinance maps or by a reasonable method which meets the objectives of the SMA (RCW 90.58.030(2g); WAC 173-22-030(5)).

Forest practices – Any activity conducted on or directly related to forest land and relating to growing, harvesting, or processing timber. These activities include, but are not limited to: road and trail construction, final and intermediate harvesting, precommercial thinning, reforestation, fertilization, prevention and suppression of disease and insects, salvage of trees and brush control. See WAC 222-16-010(21).

Gabions – Structures composed of masses of rocks, rubble or masonry held tightly together usually by wire mesh so as to form blocks or walls. Sometimes used on heavy erosion areas to retard wave action or as foundations for breakwaters or jetties.

Grading – The physical manipulation of the earth's surface and/or drainage pattern in preparation for an intended use or activity.

Groin (also referred to as a **Rock weir**) – A barrier-type structure extending from, and usually perpendicular to, the backshore into a water body. Its purpose is to protect a shoreline and adjacent upland by influencing the movement of water and/or deposition of materials. This is accomplished by building or preserving an accretion beach on its updrift side by trapping littoral drift. A groin is relatively narrow in width but varies greatly in length. A groin is sometimes built in a series as a system and may be permeable or impermeable, high or low, and fixed or adjustable.

HPA - Hydraulic Project Approval – The permit issued by the Washington State Departments of Fisheries or Wildlife pursuant to the State Hydraulic Code Chapter 75.20.100-140 RCW.

Habitat – The place or type of site where a plant or animal naturally or normally lives and grows.

Height – See **Building Height**.

In-kind replacement – To replace wetlands, streams, habitat, biota or other organisms with substitute flora or fauna whose characteristics closely match those destroyed, displaced, or degraded by an activity.

Levee – 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.

Marina – A facility that provides launching, storage, supplies, moorage, and other accessory services for six or more pleasure boats and/or commercial watercraft.

Marshes – Soft, wet area periodically or continuously flooded to a shallow depth, usually characterized by a particular subclass (monocotyledons) of grasses, cattails and other hydrophytic plants.

Mitigation – The process of avoiding, reducing, or compensating for the environmental impact(s) of a proposal (see WAC 197-11-768). The following is a list of mitigation techniques, listed in order of preference, with “1” being the most preferred:

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

Mitigation sequence – See **Mitigation**

Moorage – Any device or structure used to secure a vessel for temporary anchorage, but which is not attached to the vessel (such as a pier or buoy).

Multifamily dwelling (or residence) – A building containing two or more dwelling units, including but not limited to duplexes, apartments, and condominiums.

Native plants – These are plants that occur naturally, and that distribute and reproduce without aid. Native plants in western Washington are those that existed prior to intensive settlement that began in the 1850s.

“Natural or existing topography” means the topography of the lot, parcel, or tract of real property immediately prior to any site preparation or grading, including excavation or filling.

Nonconforming development – A shoreline use or structure which was lawfully constructed or established prior to the effective date of the Act or the Master Program, or amendments thereto, but which does not conform to present regulations or standards of the program or policies of the SMA. (See *Chapter 6: Administration.*)

Non-water-oriented uses – Those uses which have little or no relationship to the shoreline and are not considered priority uses under the SMA. Any use which does not meet the definition of water-dependent, water-related, or water-enjoyment is classified as non-water-oriented. Examples include professional offices, automobile sales or repair shops, mini-storage facilities, department stores, and gas stations. See also **Water-enjoyment**, **Water-related**, and **Water-oriented**.

OHWM, Ordinary High Water Mark – That mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department: *provided*, that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining fresh water shall be the line of mean high water. See RCW 90.58.030(2)(b) and WAC 173-22-030(11).

Permit – Any substantial development, variance, or conditional use permit, or revision authorized under Chapter 90.58 RCW.

Pier – A fixed, pile-supported structure.

Public interest – The interest shared by the citizens of the state or community at large in the affairs of government, or some interest by which their rights or liabilities are affected such as an effect on public property or on health, safety, or general welfare resulting from a use or development (WAC 173-27-030(14)).

Public trust doctrine – That body of case law addressing the public’s rights, duties and interests in water areas including navigation, commerce, environmental quality, fish and wildlife and recreation.

RCW – Revised Code of Washington.

RCW 90.58 – The Shoreline Management Act of 1971.

Recreational vehicle – See **Travel trailer**.

Residential development – Development which is primarily devoted to or designed for use as a dwelling(s).

Restoration – To revitalize or reestablish characteristics and processes of a wetland or habitat diminished or lost by past alterations, activities, or catastrophic events.

Revetment – Erosion protection measures constructed on a slope, normally in the range of 1.5:1 to 2:1 (horizontal: vertical). Construction materials may be rock riprap, gabions, interlocking concrete parent units, or similar materials.

Riparian – Of, on, or pertaining to the banks of a river.

Riprap – A layer, facing, or protective mound of stones placed to prevent erosion, scour, or sloughing of a structure or embankment; also, the stone so used.

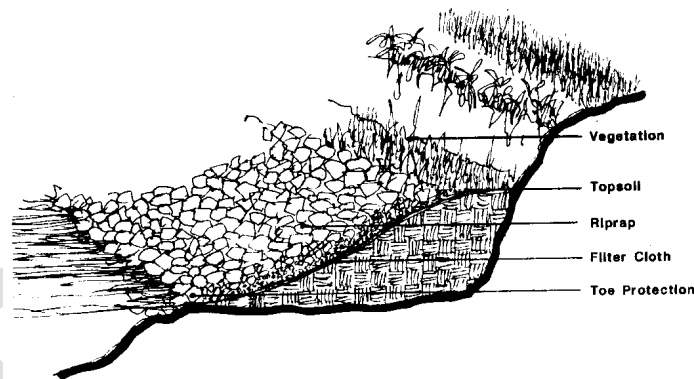


Figure 2-3: Example design criteria for riprap revetments

Rock weir – A structure made of loose rock that is designed to control sediment movement, water flow, or both. A rock weir adjacent to a shoreline is typically formed by placing rock in a line outward from the shore, with the top of the rock embankment below the water level to restrict current movements parallel to the shore without completely blocking flow.

Rotovating – An aquatic vegetation harvesting technique that uses rototilling technology to uproot and remove plants.

Runoff – Water that is not absorbed into the soil but rather flows along the ground surface following the topography.

SEPA – see **State Environmental Policy Act**.

SEPA Checklist – A checklist is required of some projects under SEPA to identify the probable significant adverse impacts on the quality of the environment. The checklist will also help to reduce or avoid impacts from a proposal, and help the responsible governmental agency decide whether a full environmental impact statement (EIS) is required (WAC 197-11-960).

Salmon and Steelhead Habitats – Gravel bottomed streams, creeks, and rivers used for spawning; streams, creeks, rivers, side channels, ponds, lakes, and wetlands used for rearing, feeding, adult residency, cover and refuge from predators and high water; streams, creeks, , rivers, , used as migration corridors; and water bodies used for rearing, feeding, adult residency, and refuge from predators and currents.

Sediment – The fine grained material deposited by water or wind.

Setback – A required open space, specified in shoreline master programs, measured horizontally upland from and perpendicular to the ordinary high water mark.

Shall – "Shall" indicates a mandate; the particular action must be done.

Shoreline jurisdiction – The term describing all of the geographic areas covered by the SMA, related rules and the applicable master program. Also, such areas within a specified local government's authority under the SMA. See definitions of *Shorelines*, *Shorelines of the state*, *Shorelines of statewide significance*, and *Wetlands, jurisdictional*.

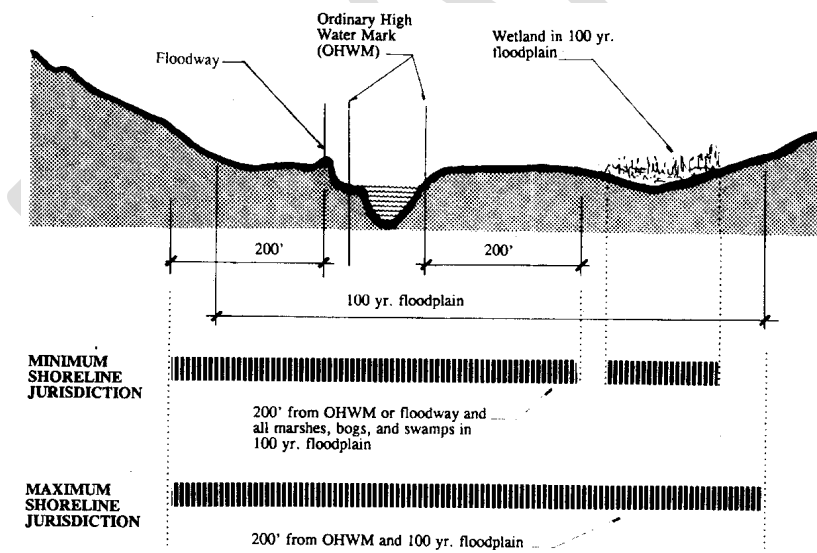


Figure 2-4: Cross Section of Shoreline Management Act Jurisdiction - River Shorelines

Shoreline Management Act – (SMA or Act) Chapter 90.58 RCW, as amended.

Shoreline Master Program (SMP) – The comprehensive use plan and related use regulations, together with maps, diagrams, charts, or other descriptive material and text, a statement of desired goals, and standards developed in accordance with the policies enunciated in RCW 90.58.020. The SMP is used by the City to administer and enforce the permit system for shoreline management. Master programs (SMP's) must be developed in accordance with the policies of the SMA, be approved and adopted by the state, and be consistent with the state rules (WAC's) adopted by Ecology.

As provided in RCW 36.70A.480, the goals and policies of a shoreline master program for a city approved under chapter 90.58 RCW shall be considered an element of the city's comprehensive plan. All other portions of the shoreline master program for a city adopted under Chapter 90.58 RCW, including use regulations, shall be considered a part of the city's development regulations.

Shoreline modification – Physical construction on or alteration to a shoreline area. Examples of shoreline modifications include piers, docks, jetties, bulkheads, riprap, beach enhancement, and modifications to riparian and wetland areas.

Shoreline permit – A substantial development, conditional use, revision, or variance permit or any combination thereof (WAC 173-27-030(13)).

Shoreline Substantial Development Permit (SSDP) – The permit required under the Shoreline Management Act and this Master Program if the development proposed is a "substantial development".

Shorelines – All of the water areas of the state, including reservoirs and their associated shorelands, together with the lands underlying them, except (a) shorelines of statewide significance; (b) shorelines on segments of streams upstream of a point where the mean annual flow is twenty (20) cubic feet per second or less, and the wetlands associated with such upstream segments; and (c) shorelines on lakes less than twenty (20) acres in size and wetlands associated with such small lakes (see RCW 90.58.030(2)(d) and WAC 173-18, 173-19 and 173-22).

Shorelines Hearings Board – A six member, state-level quasi-judicial body, created by the SMA, which hears appeals by any aggrieved party on the issuance of a shoreline permit, or enforcement penalty. See RCW 90.58.170; 90.58.180; and WAC 173-27-220; 173-27-290.

Shorelines of statewide significance – A select category of shorelines of the state, defined in RCW 90.58.030(2)(e), where special preservationist policies apply and where greater planning authority is granted by the SMA; the Nooksack River is identified as a shoreline of statewide significance. Permit review must acknowledge the use priorities for these areas established by the SMA. See Section 1.04.03 in this document.

Shorelines of the state – The total of all shorelines and shorelines of statewide significance.

Should – The particular action is required, unless there is a compelling reason against it.

Single family residence – A detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance (WAC 173-27-040(2g)).

SMA – see *Shoreline Management Act*.

SMP – see *Shoreline Master Program*.

Soil bioengineering – An applied science that combines structure, biological and ecological concepts to construct living structures that stabilizes the soil to control erosion, sedimentation and flooding using live plant materials as a main structural component.

Solid waste – Solid waste includes all putrescible and nonputrescible solid and semisolid wastes, including garbage, rubbish, ashes, industrial wastes, wood wastes and sort yard wastes associated with commercial logging activities, swill, demolition and construction wastes, abandoned vehicles and parts of vehicles, household appliances and other discarded commodities. Solid waste does not include sewage, dredge material or agricultural or other commercial logging wastes not specifically listed above.

Solid waste disposal – The discharge, deposit, injection, dumping, spilling, leaking or placing of any solid or hazardous waste on any land area on or in the water.

State Environmental Policy Act , (SEPA) – SEPA requires state agencies, local governments and other lead agencies to consider environmental factors when making most types of permit decisions, especially for development proposals of a significant scale. As part of the SEPA process, EISs may be required to be prepared and public comments solicited.

Stream – According to the Shoreline Management Act, a stream for which the SMA has jurisdiction (SMA-stream) is defined as a naturally occurring body of periodic or continuously flowing water where: a) the mean annual flow is greater than twenty (20) cubic feet per second and b) the water is contained within a channel (WAC 173-22-030(15)). The term “stream” is also used generally to describe those non-SMA stream areas where periodic or continuously flowing surface waters produce a defined channel or bed that demonstrates annual passage of water such as gravel beds, usage by salmonid or other fish populations, etc. that are located within shorelands. This definition includes drainage ditches or other artificial watercourses where natural streams existed prior to human alteration.

Structural (or hard) erosion control – Measures which include revetments, bulkheads and seawalls, vertical rock walls, and similar facilities, constructed parallel to and near the ordinary high water mark for the purpose of protecting adjacent uplands from the erosive action of waves or currents.

Structure – A permanent or temporary edifice or building, or any piece of work artificially built or composed of parts joined together in some definite manner, whether installed on, above or below the surface of the ground or water, except for vessels (WAC 173-27-030(15)).

Substantial Development – A substantial development is any “development” of which the total cost or fair market value exceeds ~~five thousand seven hundred eighteen dollars (\$5,718)~~ ~~seven thousand forty seven dollars (\$7,047)~~, or as amended by the state office of financial management or any development which materially interferes with the normal public use of the water or shorelines of the state. For the purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on shorelines of the state as defined in RCW 90.58.030(2)(c). The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials, See also Section 8.05.03 Exemptions.

Commented [DT8]: Periodic Review Checklist: 2017 (a). OFM adjusted the cost threshold as they do regularly.

Travel trailer – A portable structure built on a chassis designed to be used as a temporary dwelling for travel, recreational and vacation use.

Upland – Generally described as the dry land area above and landward of the ordinary high water mark.

Variance – A means to grant relief from the specific bulk, dimensional or performance standards specified in the applicable master program, and not a means to vary the use of a shoreline. Variance permits must be specifically approved, approved with conditions, or denied by Ecology (See WAC 173-27-170).

Vegetative erosion control – Shoreline stabilization solely through the use of erosion resistant plantings, preferably of plant species native to the local area.

WAC – Washington Administrative Code.

Water-dependent – A use or a portion of a use which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations. Examples of water-dependent uses may include ship cargo terminal loading areas, ferry and passenger terminals, barge loading facilities, ship building and dry docking, marinas, aquaculture, float plane facilities and sewer outfalls. See also **Water-enjoyment, Water-related, Water-oriented** and **Non-water oriented**.

Water-enjoyment – A recreational use, or other use facilitating public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through the location, design, and operation ensures the public’s ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment. Primary water-enjoyment uses may include, but are not limited to, parks, piers and other improvements facilitating public access to shorelines of the state; and general water-enjoyment uses may include, but are not limited to, restaurants, museums, aquariums, scientific/ecological reserves, resorts and mixed-use commercial, *provided*, that such uses conform to the above water-enjoyment specifications and the provisions of the master program. See also **Water-dependent, Water-related, Water-oriented, and Non-water oriented**.

Water-oriented – Refers to any combination of water-dependent, water-related, and/or water enjoyment uses and serves as an all encompassing definition for priority uses under the SMA with the exception of single-family residences. See also **Water-dependent, Water-enjoyment, Water-related,** and **Non-water oriented.**

Water-related – A use or a portion of a use which is not intrinsically dependent on a waterfront location but whose economic viability is dependent upon a waterfront location because:

1. of a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or
2. the use provides a necessary service supportive of the water-dependent commercial activities and the proximity of the use to its customers makes its services less expensive and/or more convenient. Examples include manufacturers of ship parts large enough that transportation becomes a significant factor in the products cost, professional services serving primarily water-dependent activities and storage of water-transported foods. Examples of water-related uses may include warehousing of goods transported by water, seafood processing plants, hydroelectric generating plants, gravel storage when transported by barge, oil refineries where transport is by tanker and log storage.

See also **Water-dependent, Water-enjoyment, Water-oriented,** and **Non-water oriented.**

Wetlands – or **wetland areas** means areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas (See RCW 90.58.030(2)(h) and WAC 173-22-030(19)).

Zoning – To designate by ordinance, including maps, areas of land reserved and regulated for specific land uses.

3 SHORELINE MANAGEMENT GOALS

3.01 SHORELINE MASTER PROGRAM GOALS

Eight preliminary shoreline management goals relating to program elements specified in RCW 90.58.100 have been identified for the City of Lynden. These goal statements address the following shoreline elements: *Shoreline Use, Economic Development, Circulation, Conservation, Public Access, Recreation, Historic/Cultural Resources, and Restoration*. These goals establish the basis from which the environmental designations, policies, regulations, and administrative procedures of the Shoreline Master Program are developed.

3.02 SHORELINE USE ELEMENT GOAL

To plan for and foster appropriate uses on shorelines and adjacent land areas, including housing, business, industry, transportation, natural resources, recreation, education, public buildings and grounds, and other categories of public and private uses of the land, while protecting and enhancing the quality of the shorelines of the City and adjoining County properties and preserving special opportunities for water-dependent, water-related and water-enjoyment uses.

3.03 ECONOMIC DEVELOPMENT ELEMENT GOAL

Insure healthy, orderly economic growth by allowing those economic activities which will be an asset to the local economy and which result in the least possible adverse effect on the quality of the shoreline and surrounding environment.

3.04 CIRCULATION ELEMENT GOAL

Provide safe, reasonable and adequate circulation systems to shorelines where routes will have the least possible adverse effect on unique or fragile shoreline features and existing ecological systems, while contributing to the functional and visual enhancement of the shoreline with minimum conflict among shoreline uses and between shoreline users and abutting upland areas.

3.05 CONSERVATION ELEMENT GOAL

To conserve, restore and enhance the natural resources including scenic vistas, estuaries, beaches, shorelines, fragile ecological areas, fish, wildlife, timber and land, water and air.

3.06 PUBLIC ACCESS ELEMENT GOAL

To increase and enhance a public access system that is both physical and visual, utilizing both private and public lands while respecting the rights of private ownership.

3.07 RECREATIONAL ELEMENT GOAL

Encourage diverse, water-oriented recreational opportunities in shoreline areas that can reasonably tolerate during peak use periods active, passive, competitive or contemplative uses without destroying the integrity and character of the shoreline.

3.08 HISTORICAL/CULTURAL ELEMENT GOAL

Identify, protect, preserve and restore important archaeological, historical and cultural sites located in shorelands for educational, scientific and enjoyment of the general public.

3.09 RESTORATION ELEMENT GOAL

To encourage development in areas that have been previously blighted or degraded so such areas may be renewed or restored to a natural or useful condition.

DRAFT

4 SHORELINE ENVIRONMENT DESIGNATIONS

4.01 INTRODUCTION

The five environment designations that ~~are may be~~ applied to shoreline areas within the City of Lynden are the Urban, Shoreline Residential, Urban Conservancy, ~~Natural~~, and Aquatic Environments. The following provisions include a statement of purpose for each environment, and criteria for applying the appropriate environment designations to shorelines of the city. In addition, management policies are provided as the basis for determining which uses are allowed in each shoreline environment and for setting site development standards. Maps of the designations are provided in the Appendix A Map Folio with general descriptions of the areas listed below.

Commented [DT9]: DOE recommended: Minor change to clarify that the environment designations are pre-determined according to the Official Shoreline Map.

Commented [DT10]: Lynden does not have a "Natural" designation on any properties in the City.

4.02 URBAN ENVIRONMENT

The purpose of the "urban" environment is to provide for high-intensity and water-oriented commercial, industrial and transportation uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.

4.02.01 Designation Criteria

An "urban" environment is for designating shoreline areas that currently support high-intensity uses related to commerce, or transportation; or are suitable and planned for high-intensity water-oriented uses.

4.02.02 Management Policies

1. Uses in the "urban" environment should be prioritized in the following order:

- Water-dependent uses.
- Water-related and water-enjoyment uses.
- Non water-oriented uses only if part of mixed use developments.

Non water-oriented uses may also be allowed in limited situations where they do not conflict with or limit opportunities for water-oriented uses or on sites that are physically separated from the shoreline by a public road or parcel in another ownership as of the effective date of this SMP, and where there is no direct access to the shoreline.

2. Single-family residential development may be allowed within the "urban" environment if the density and intensity of such use is limited as necessary to protect ecological functions and be consistent with the purpose of the environment.
3. Multifamily residential and recreational developments should provide public access and joint use for community recreational facilities.

4. Full utilization of existing urban areas should be achieved before further expansion of intensive development is allowed.
5. New development shall result in no net loss of shoreline ecological functions.
6. Visual and physical public access should be required where feasible.
7. Aesthetic objectives should be implemented for sign control regulations, development siting, screening and architectural standards, and maintenance of natural vegetative buffers.

4.02.03 Urban Environment

The Lynden Urban Environment includes:

- The area west of Fishtrap Creek from the southern City Urban Growth Area limits (near Guide Meridian Road) to the Kok Road.
- The commercial zoned areas along Fishtrap Creek near the Front Street Bridge.
- The commercial zoned areas adjacent to Fishtrap Creek along 18th Street.
- The industrial zoned area on the south side of Fishtrap Creek, near Depot Road.

4.03 SHORELINE RESIDENTIAL ENVIRONMENT

The purpose of the "shoreline residential" environment is to accommodate residential development and appurtenant structures that are consistent with this chapter. An additional purpose is to provide appropriate public access and recreational uses.

4.03.01 Designation Criteria

Areas to be designated Shoreline Residential Environment are predominantly single-family or multifamily residential development or are planned and platted for residential development.

4.03.02 Management Policies

1. Standards for density or minimum frontage width, setbacks, lot coverage limitations, buffers, shoreline stabilization, vegetation conservation, critical area protection, and water quality shall be set to assure no net loss of shoreline ecological functions, taking into account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other comprehensive planning considerations.

2. Multifamily and multi-lot residential and recreational developments should provide public access and joint use for community recreational facilities.
3. Access, utilities, and public services should be available and adequate to serve existing needs and/or planned future development.
4. Commercial development should be limited to water-oriented uses.

4.03.03 Shoreline Residential Environment

The Lynden Shoreline Residential Environment includes:

- The areas north of Fishtrap Creek from the commercial properties north of Front Street to Bender Road. With the exception of one commercial property near Depot Road.
- The residential properties south of Fishtrap Creek between the commercial properties near the Front Street Bridge to the commercial properties located near 18th Street.
- The areas south of Fishtrap Creek from 17th Street to the industrial property located on the west side of Depot Road.
- The areas south and east of Fishtrap Creek starting at the residential properties at Brookfield Court to the northern City Limits along the Badger Road.
- All areas in the City of Lynden that are part of the Nooksack River shoreline jurisdiction with the exception of commercial properties located on the south end of 4th Street.
- The area west of Fishtrap Creek from the east boundary of Bender Field to Heritage Park south of the Badger Road.

4.04 URBAN CONSERVANCY ENVIRONMENT

The intent of the Urban Conservancy environment is to protect and restore ecological functions of open space, flood plain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.

4.04.01 Designation Criteria

Areas to be designated Urban Conservancy should meet one or more of the following criteria:

1. Areas suitable for water-related or water-enjoyment uses;
2. Open space, flood plain or other sensitive areas that should not be more intensively developed;
3. The potential for ecological restoration;

4. The area retains important ecological functions, even though partially developed; or
5. They have the potential for development that is compatible with ecological restoration.
6. All areas within shoreline jurisdiction that are not mapped and/or designated are automatically assigned "urban conservancy" until the shoreline can be re-designated through a master program amendment.

4.04.02 Management Policies

1. Uses that preserve the natural character of the area or promote preservation of open space, flood plain or sensitive lands either directly or over the long term should be the primary allowed uses. Uses that result in restoration of ecological functions should be allowed if the use is otherwise compatible with the purpose of the environment and the setting.
2. Standards should be established for shoreline stabilization measures, vegetation conservation, water quality, and shoreline modifications within the "urban conservancy" designation. These standards shall ensure that new development does not result in a net loss of shoreline ecological functions or further degrade other shoreline values.
3. Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.
4. Water-oriented uses should be given priority over non water-oriented uses.
5. Single-family residential development may be allowed as a conditional use within the "urban conservancy" environment if the density and intensity of such use is limited as necessary to protect ecological functions and be consistent with the purpose of the environment.
6. Commercial and industrial uses should be prohibited.

4.04.03 Urban Conservancy Environment

The Lynden Urban Conservancy environment extends:

1. The Northwest Washington Fairgrounds (zoned Public) area west of Fishtrap Creek, north of Kok Road and the wetland areas west of Fishtrap Creek from Kok Road to Front Street.
2. The area south of Fishtrap Creek from the City Park, along the City Trail to the residential properties north of Lynden Christian High School (near Brookfield Court) with the exception of one residential property at the end of Cedar Drive.
3. The area north of Fishtrap Creek along Bender Fields from Bender Road to Bender Park Boulevard and one property west of Bender Road.

- Heritage Park located on the east side of Fishtrap Creek near Badger Road.

~~4.05 NATURAL ENVIRONMENT~~

~~The Natural Environment is intended to preserve and restore those natural resource systems existing relatively free of human influence and those shoreline areas possessing natural characteristics intolerant of human use or unique historical, cultural or educational features. These systems require severe restrictions on the intensities and types of uses permitted so as to maintain the integrity of the shoreline environment.~~

~~4.05.01 Designation Criteria~~

~~Areas to be designated Natural should meet one or more of the following criteria:~~

- ~~The shoreline is ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity;~~
- ~~The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest; or~~
- ~~The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.~~
- ~~Such shoreline areas that include largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, and ecologically intact shoreline habitats.~~

~~4.05.02 Management Policies~~

- ~~Any use or development which would potentially degrade the natural character of the shoreline area should be severely restricted or prohibited.~~
- ~~Limited access should be permitted for scientific, historical, educational and low-intensity recreational purposes, provided that no significant adverse impact on the area will result.~~
- ~~The following new uses should not be allowed in the "natural" environment:~~
 - ~~Commercial uses.~~
 - ~~Industrial uses.~~
 - ~~Non water-oriented recreation.~~
 - ~~Roads, utility corridors, and parking areas that can be located outside of "natural" designated shorelines.~~
- ~~A Single family residential structure may be allowed as a conditional use within the "natural" environment if the density and intensity of such use is limited as necessary~~

Commented [DT11]: DOE Recommended: Removed "Natural Environment" section bc Lynden has none.

~~to protect ecological functions and be consistent with the purpose of the environment.~~

~~5. New development or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions is prohibited.~~

~~6. The subdivision of property in a configuration that, to achieve its intended purpose, will require significant vegetation removal or shoreline modification that adversely impacts ecological functions is prohibited.~~

~~4.05.03 Natural Environment~~

~~The Lynden Natural Environment includes:~~

- ~~• No lands as of the date of this SMP~~

4.06.05 AQUATIC ENVIRONMENT

The purpose of this designation is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high-water mark.

4.06.014.05.01 Designation Criteria

1. Aquatic areas include all lands waterward of the ordinary high-water mark in Fishtrap Creek and the Nooksack River.

4.06.024.05.02 Management Policies

1. New over-water structures are only allowed for water dependent uses, public access, or ecological restoration. Utility crossings may be authorized as a conditional use. Uses which will substantially degrade the existing character of the area should be prohibited.
2. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.
3. In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple use of over-water facilities are encouraged.
4. Uses that adversely impact the ecological functions of fish and wildlife habitat conservation areas should not be allowed except where necessary to achieve the objectives of RCW 90.58.020, and then only when their impacts are mitigated according to the sequence described in WAC 173-26-201 (2)(e) as necessary to assure no net loss of ecological functions.
5. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.

~~4.06.03~~ 4.05.03 Aquatic Environment

The Lynden Aquatic environment includes:

- the area of the Nooksack River and Fishtrap Creek within the City of Lynden from the ordinary high water mark (OHWM) on one side of each waterway to the OHWM on the opposite side of the waterway.
- all areas of the Nooksack River waterward of the OHWM within the City of Lynden jurisdiction.

4.074.06 DEVELOPMENT STANDARDS

~~4.07.014~~ 4.06.01 Shoreline Use Policies and Regulations

The table in section 4.07.02 lists SMP permitted uses and activities within each shoreline environment designation. In the case that inconsistencies exist between the table and the policies and regulations included within Chapters 4, 6 and 7, the policies and regulations shall apply.

~~4.07.024~~ 4.06.02 Shoreline Use and Activity table

Commented [DT12]: Note: Removed the "Natural" column bc Lynden has none

<i>Shoreline Use or Activity</i>	<i>Aquatic</i>	<i>Urban Conservancy</i>	<i>Shoreline Residential</i>	<i>Urban</i>
Agriculture	X	X	X	X
Aquaculture	C	C	C	C
Commercial				
Water dependent	C	C	P	P
Water Related	X	C	P	P
Water-Enjoyment	X	C	C	C
Non-Water Oriented	X	X	C	P
Dredging	C	C	C	C
Fill	C	C	C	C
Industry	X	X	C	P
Instream Structure	C	C	C	C
Parking				
Accessory	X	C	P	P
Primary	X	X	X	X
Recreation				
Water dependent	C	P	P	P

Commented [DT13]: DOE required change: SMP 6.04.03.2 permits non-water oriented commercial uses in the urban environment designation.

Shoreline Use or Activity	Aquatic	Urban Conservancy	Shoreline Residential	Urban
Water Related	X	P	P	P
Water-Enjoyment	X	C	C	C
Non-Water Oriented	X	C	C	C
Residential				
Single family	X	C	P	P
Multi-family	X	X	P	P
Shoreline Restoration	PC	PC	PC	PC
Shoreline Stabilization	C	C	C	C
Solid Waste Disposal	X	X	X	X
Transportation	C	C	P	P
Utilities	C	C	C	P

Commented [DT14]: DOE Required Change: Shoreline restoration should be encouraged consistent with policies and regulations in 7.05.

Key

- P = May be permitted
- C = May be permitted as a conditional use only
- X = Prohibited; the use is not eligible for a variance or conditional use permit

4.07.034.06.03 Height Limits and Setbacks

The development standards in this section are the maximum allowed in each environment under this SMP. A proposed development must also comply with all zoning and development regulations in the Lynden Municipal Code.

4.07.044.06.04 Height Limits

1. No new or expanded building or structure shall exceed the height limits shown in section 4.07.06 for the Environment Designation. Height limits do not apply to cupolas, water tanks, church spires, flagpoles, transmission lines, and radio and television towers and other similar structures. Height limits are measured from average grade.

4.07.054.06.05 Setbacks

1. Permanent structures, storage, impervious and hard surfaces shall be set back from the floodway edge or ordinary high water mark (whichever is further landward) according to the table in 4.07.06. Setbacks are measured landward, on a horizontal plane, perpendicular to the shoreline.
2. The portion of development that is water-dependent should not be required to meet the setback. However, the placement of structures, storage, and hard surfaces

within the setback shall be limited to the minimum necessary for the successful operation of the use.

3. In no case shall parking be allowed within the fifty (50) foot setback.
4. Removal of vegetation and topsoil is strictly regulated under the Clearing and Grading Provisions of this Master Program.

4.07.06 4.06.06 Table of development standards

<i>Environment Designation</i>	<i>Height</i>	<i>Setback</i>
Aquatic	NA	NA
Natural	15 feet	150 feet
Urban Conservancy	15 feet	100 feet
Shoreline Residential	32 feet	75 feet
Urban	60 feet	50 feet

5 GENERAL POLICIES & REGULATIONS

5.01 INTRODUCTION

General policies and regulations are applicable to all uses and activities that may occur within shorelines of the city that are subject to the jurisdiction of the State Shoreline Management Act. Policies and regulations provided in this master program specifically address uses and activities occurring on the shorelines of the Nooksack River or Fishtrap Creek and the associated wetlands. The general policies and regulations reduce redundancy within the master program by eliminating the need to repeat regulations that apply to all subject shorelands within the city, regardless of environmental designation. The general regulations are to be used in conjunction with the more specific use and activity regulations found in the following chapters.

5.02 GENERAL REGULATIONS

1. New and expanded development shall result in no net loss of shoreline ecological functions.
2. All shoreline uses, and shoreline modification activities including those that do not require a shoreline substantial development permit (SDP), must conform to the policies and regulations of this master program.
3. Shoreline modification activities must be in support of an allowable shoreline use which conforms to the provisions of this master program. Except as otherwise noted, all shoreline modification activities not associated with a legally existing or an approved shoreline use are prohibited.
4. Shoreline uses, modification activities and conditions listed as "prohibited" shall not be eligible for consideration as a shoreline variance or shoreline conditional use permit.
5. The "policies" listed in this master program will provide broad guidance and direction and will be used by the City in applying the "regulations".
6. Where provisions of this master program conflict, the most protective provisions reasonable under the given circumstances shall apply.

5.03 ARCHAEOLOGICAL AND HISTORIC RESOURCES

5.03.01 Applicability

Archaeological and historic resources, because of their finite nature, are valuable links to our past and should be considered whenever a development is proposed along the Nooksack River, Fishtrap Creek or on any associated wetlands. Where such resources are either recorded at the State Historic Preservation Office and/or with the City of

Lynden and/or Whatcom County, or have been inadvertently uncovered, the following policies and regulations apply.

5.03.02 Policies

1. Due to the limited and irreplaceable nature of the resource, public or private uses and activities should be prevented from destroying or damaging any site having historic, cultural, scientific or educational value as identified by the appropriate authorities.

5.03.03 Regulations

1. All shoreline permits shall contain provisions which require developers to immediately stop work and notify the City, the Office of Archaeology and Historic Preservation and affected Indian tribes if any phenomena of possible archaeological interest are uncovered during excavations. ~~In such cases, in areas documented to contain archaeological resources,~~ the developer shall be required to provide for a site inspection and evaluation by a professional archaeologist to ensure that all possible valuable archaeological data are properly salvaged or protected.

Commented [DT15]: DOE Required Change: Change needed for consistency with WAC 173-26-221(1)(c)(ii).

5.04 CLEARING AND GRADING

5.04.01 Applicability

One intent of the Shoreline Management Act is to minimize as much as possible impacts to the ecology of the shoreline and its waters. This is substantiated by RCW 90.58.020:

"Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's uses of the water."

Clearing and grading is the activity associated with developing property for a particular use including commercial, industrial, recreational and residential uses. Specifically, "clearing" means the destruction or removal of vegetative ground cover and/or trees including, but not limited to, root material removal and/or topsoil removal. This includes such activities as clear-cutting or selective harvest of trees, chipping of stumps and hauling off of shrubs, slash piles, etc. "Grading" means the physical manipulation of the earth's surface and/or surface drainage pattern without significantly adding or removing on-site materials. This includes removing the duff layer, all surcharging, preloading and re-contouring the ground and may include minor excavation and filling. Landfill addresses the placement of dry fill on existing dry or existing wet areas.

Both activities, clearing and grading, may increase erosion, siltation, runoff/flooding, change drainage patterns, reduce flood storage capacity and damage habitat. Although it may not technically be considered "development" which triggers a substantial development permit, clearing as an activity that impacts shoreline resources is regulated in order to achieve the design goals and objectives of the SMA, particularly along Shorelines of Statewide Significance where preservation of natural shoreline

characteristics takes a very high priority. All policies and standards must be adhered to and a conditional use permit shall be required in the ~~Natural and~~ Urban Conservancy shoreline designations. Grading is considered development and will be managed accordingly. For single-family residences, 250 cubic yards of fill may be allowed without a substantial development permit provided all other applicable permits are obtained and all policies and regulations are met.

Commented [DT16]: Lynden has no "Natural" designation

5.04.02 PERMIT EXEMPTION - Grading

For single family residences, a one-time exemption of two hundred and fifty (250) cubic yards of grading (in excess of the grading allowed for approved development of the house footprint and appurtenant structures) may be allowed without a substantial development permit, provided all policies and regulations of this master program are met.

5.04.03 Policies

1. All clearing and grading activities should be designed and conducted to minimize impacts to wildlife habitat, sedimentation of creeks, streams, ponds, wetlands and other water bodies and degradation of water quality.
2. Clearing and grading activities in shoreline areas should be limited to the minimum necessary to accommodate shoreline development. Such activities should not be allowed in designated (structural) setback areas and allowed in other shoreline locations only when associated with a permitted shoreline development.
3. Negative environmental and shoreline impacts of clearing and grading should be avoided wherever possible through proper site planning, construction timing and practices, bank stabilization, bioengineering and use of erosion and drainage control methods as well as adequate maintenance.
4. Cleared and disturbed sites remaining after completion of construction should be promptly replanted with native vegetation or, in limited circumstances, with other species contained in the City approved plant list.
5. All clearing and grading activities should be designed with the objective of maintaining natural diversity in vegetation species, age and cover density.
6. For extensive clearing and grading proposals, a clearing and grading plan addressing species removal, replanting, invasive and noxious weed control, irrigation, erosion and sedimentation control and other methods of riparian corridor protection should be required conforming with the standards for the maximum percentage of site clearing permitted.

5.04.04 Regulations

1. All clearing and grading activities shall be limited to the minimum necessary for the intended development, including residential development.

2. Clearing and grading within designated shoreline setback areas shall be the minimum necessary to provide access to the shoreline.
3. When applying clearing and grading requirements the following plant communities shall determine in descending order of preference where clearing and grading may be allowed. The first plant community listed indicates the most preferred location for clearing and grading:
 - a. invasive plants and noxious weeds
 - b. grass
 - c. shrub/scrub
 - d. forest
4. Clearing and grading activities may only be permitted (landward of required setbacks) when associated with a permitted shoreline development, PROVIDED that upon completion of construction, remaining cleared areas shall be replanted with native species contained in the City approved plant list. Replanted areas should be maintained such that within three-years time the vegetation is fully reestablished.
5. Normal nondestructive pruning and trimming of vegetation for maintenance purposes shall not be subject to these clearing and grading regulations. In addition, clearing by hand held equipment of invasive nonnative shoreline vegetation or plants listed on the State Noxious Weed List is permitted in shoreline locations if native vegetation is promptly reestablished in the disturbed area.
6. Any significant placement of materials from off-site, (other than surcharge or preload) or substantial creation or raising of dry upland shall be considered landfill and shall also comply with the landfill provisions in section 7.0 Shoreline Modification Activity Policies and Regulations.

5.05 ENVIRONMENTAL IMPACTS

5.05.01 Applicability

The SMA is concerned with the environmental impacts that both a use and activity may have on the fragile shorelines of the state. This Shoreline Master Program is primarily concerned with the potential damaging effects to the shorelines of the State, within the City of Lynden. Shoreline and water quality degradation caused by the introduction of pollutants such as contaminated stormwater, animal wastes, petroleum products, chemicals, pesticides/herbicides, solid waste, domestic or industrial wastewater and sediment from erosion are all issues that must be addressed.

5.05.02 Policies

1. The adverse impacts of shoreline uses and activities on the environment should be minimized during all phases of development (e.g. design, construction, management and use).

5.05.03 Regulations

1. The location, design, construction and management of all shoreline uses and activities shall protect the quality and quantity of surface and ground water on-site and adjacent to the site and shall adhere to the guidelines, policies, standards and regulations of applicable water quality management programs and related regulatory agencies.
2. Solid and liquid wastes and untreated effluents shall not be allowed to enter any bodies of water or to be discharged onto land without the required permits.
3. The release of oil, chemicals or hazardous materials onto land or into the water is prohibited. Equipment for the transportation, storage, handling or application of such materials shall be maintained in safe and leak proof condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected and any contamination remediated.
4. All shoreline uses and activities shall be located, designed, constructed and managed in a manner that avoids and minimizes adverse impacts to surrounding land and water uses and is aesthetically compatible with the affected area.
5. All shoreline uses and activities shall utilize best management practice (BMP) measures to avoid and minimize any increase in surface runoff so that receiving water quality and shore properties and features are not adversely affected. Such measures may include but are not limited to dikes, catch basins or settling ponds, installation and required maintenance of oil/water separators, grassy swales, interceptor drains, low-impact development techniques, and landscaped buffers.
6. All shoreline uses and activities shall utilize effective erosion control methods during both project construction and operation.
7. All shoreline uses and activities shall be located, designed constructed and managed to avoid disturbance of and minimize adverse impacts to fish and wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes.
8. Land clearing, grading, filling and alteration of natural drainage features and land forms shall be limited to the minimum necessary for development. Surface drainage systems or substantial earth modifications involving greater than 50 cubic yards of material shall be professionally designed to prevent maintenance problems or adverse impacts to adjacent properties or shoreline features.
9. All shoreline developments shall be located, constructed and operated so as not to be a hazard to public health and safety.
10. All shoreline developments shall be located and designed to ~~avoid minimize or prevent~~ the need for shoreline defense and stabilization measures and flood protection works such as bulkheads, other bank stabilization, landfills, levees, dikes, or substantial site re-grades.

Commented [DT17]: DOE Required Change: This change uses the term "avoid" consistent with WAC 173-26-231(3)(a)(iii)(A) and the language in 7.06.03.1 of this master program.

11. Herbicides and pesticides shall not be applied or allowed to directly enter water bodies or wetlands unless approved for such use by appropriate agencies (U.S. and State Departments of Agriculture, U.S. Environmental Protection Agency, Washington Department of Ecology). Such chemicals shall only be allowed to be applied in vegetative buffers upon written approval by the Administrator.

5.06 CRITICAL AREAS – GENERAL PROVISIONS

5.06.01 Applicability

Critical areas constitute the most fragile lands which support resources that are economically and culturally important to the state, and consequently the city, under the Shoreline Management Act. The shorelines of the Nooksack River and Fishtrap Creek contain valuable natural resources that provide habitat for chum, coho, and Chinook Salmon, as well as steelhead, sea-run trout, resident trout and Dolly Varden. The shorelands of the city also contain areas that could potentially threaten the health and safety of the public, such as floodways or steep slopes.-

Critical areas apply to:

- Wetlands,
- Areas with a critical recharging effect on aquifers used for potable waters;
- Fish and wildlife habitat conservation areas;
- Frequently flooded areas;
- Geologically hazardous areas

Regulation of critical areas within the shoreline jurisdiction shall be consistent with applicable provisions codified in Lynden Municipal Code Chapter 16.16, adopted by Ordinance No. 1560 in 2018; provided, that the following sections shall not apply:

- 16.16.070 – Exemptions from Critical Areas Review Requirements;
- 16.16.080 – Critical Area Permits;
- 16.16.090 – Waiver for Subsequent Approvals;
- 16.16.100 – Existing Non-Conforming Uses;
- 16.16.130 - Enforcement; and
- 16.16.140 – Offense and Penalty

In addition to Section 16.16.260 of the Lynden Critical Areas Ordinance, the following additional provision applies to Shoreline associated wetlands:

1. Wetlands shall be designated in accordance with the approved federal wetland delineation manual and applicable regional supplements.

5.06.02 Policies

1. ~~Unique, rare and fragile natural and man made features as well as scenic vistas and wildlife habitats should be preserved and protected from unnecessary degradation or interference.~~

Commented [DT18]: Removed the Critical Areas specific language and included the Critical Area section as reference to 16.16 Critical Areas Ordinance. Including by reference allows the CAO to be updated independently without causing the SMP to be out of date. This reference is to ensure SMP review process is met for Critical Areas within the Shoreline district.

Commented [DT19R18]: Included a change to reflect a Planning Commission question (7/25) to clarify this section.

Commented [DT20]: Refer to Critical Areas ordinance by reference only.

- ~~2.—Some areas, because of unique and/or fragile geological or biological characteristics, should be protected from public access.~~
- ~~3.—Shorelines that are identified as hazardous for or sensitive to development should not be developed.~~
- ~~4.—Environmentally sensitive areas should be preserved as open space wherever possible. Greater flexibility and diversification in the use of land may be permitted for a unified grouping of structures and open space when clustering is outside environmentally sensitive areas.~~

~~5.06.03 — Regulations~~

- ~~1.—Critical areas standards and regulations shall be based on best up-to-date science.~~
- ~~2.—All shoreline uses and activities shall be located, designed, constructed and managed to result in no net loss of ecological functions and to facilitate the appropriate human intensity of use of such features.~~
- ~~3.—The critical areas policies and regulations in this Master Program (sections 5.06, 5.07, 5.08, 5.09 and 5.10) apply to the shoreline jurisdiction (16.16 LMC).~~

5.07 — CRITICAL AREAS — GEOLOGICAL HAZARD AREAS

~~5.07.01 — Applicability~~

~~Geological hazard areas are areas susceptible to severe erosion or slide activity, and include areas with high potential for earthquake activity. All of Whatcom County has considerable potential for earthquake activity, and therefore all structures and developments must be built to the standards provided for earthquake resistance. Within the City of Lynden shoreline jurisdiction there are segments of the shoreline that contain steeply sloping banks that are not suitable for the placing of structures or locating of intense activities or uses due to the inherent threat to public health and safety.~~

~~5.07.02 — Policies~~

- ~~1.—Development should be prohibited on unstable slopes or minimized on moderately unstable slopes.~~
- ~~2.—Development should be permitted only in locations where no slope protection is necessary or where nonstructural protection is sufficient for the life of the project.~~
- ~~3.—Clearing vegetation on and within edges of stream banks should be avoided. Retention of a natural vegetation should be required.~~
- ~~4.—Construction should be discouraged within a 2:1 slope (a slope that rises 1 foot for every 2 feet horizontal) from the base of the bank.~~

- ~~5. Structures should be designed and constructed in a manner that provides safety for the useful life of the structure and does not require construction of a retaining wall or bulkhead during that same time span.~~
- ~~6. Subdivision of lots near stream banks should allow sufficient lot depth for development to occur without need for bulkheading or other structural stabilization for the life of the project.~~

5.07.03 — Regulations

- ~~1. Construction activity shall not increase or result in slope instability or sloughing.~~
- ~~2. No development shall be permitted where slope protection is necessary or where nonstructural protection is not sufficient for the life of the project.~~
- ~~3. New stabilization structures for existing primary residential structures are allowed only where no alternatives (including relocation or reconstruction of existing structures), are feasible, and less expensive than the proposed stabilization measure, and then only if no net loss of ecological functions will result.~~
- ~~4. Tree clearing and vegetation removal shall be avoided if at all possible, or if unavoidable it shall be limited to the minimum extent necessary to allow construction of the proposed development.~~
- ~~5. Foundations shall be placed out of the 2:1 slope area, unless a geotechnical report guarantees that slope stability will not be affected.~~
- ~~6. Surface drainage down a slope in the direction of the stream bank shall be contained in a tight line (closed, non-leaking pipe) for discharge at the toe of the slope within the shoreline buffer in such a way that erosion will not occur.~~
- ~~7. Surface drainage away from the stream bank shall also use a tight line or some other approved method for discharge into a natural drainage course.~~
- ~~8. A geotechnical report shall be required when:
 - ~~a. Activity is within 200 feet of a bank classified as unstable or having intermediate stability; or~~
 - ~~b. Activity is within 200 feet of the shoreline when the vertical height of the bank exceeds 20 feet; or~~
 - ~~c. Activity is within the 2:1 slope of the toe of the bank.~~~~
- ~~9. The geotechnical report shall contain:
 - ~~a. Soil and erosion rates;~~
 - ~~b. Drainage;~~~~

- c.—Vegetation management options;
- d.—Recommended setback to avoid need for building bulkhead during life of project;
- e.—Evaluation and statement on stability and safety of structure; and
- f.—Evaluation and statement on stability of bank.

5.08 — CRITICAL AREAS — WETLANDS

5.08.01 — Applicability

"Wetlands" are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.

5.08.02 — Policies

- 1.—Wetlands serve many important ecological and environmental functions, and help to protect public health, safety and welfare by providing flood storage and conveyance, erosion control, sediment control, fish production, fish and wildlife habitat, recreation, water quality protection, water supply, education and scientific research. Wetland uses in the shoreline shall achieve, at a minimum, no net loss of wetland area and functions.
- 2.—Wetland areas should be identified according to established identification and delineation procedures and afforded appropriate protection consistent with the policies and regulations of this program.
- 3.—All wetlands should be protected from alterations which adversely impact them so that there is no net loss of wetland acreage and functions. The greatest protection should be provided to wetlands of exceptional resource value, defined as those wetlands that include rare, sensitive or irreplaceable systems.
- 4.—A wetland buffer zone of adequate width should be maintained and controlled between a wetland and any adjacent development to protect the functions and integrity of the wetland. The width of the established buffer zone should be based upon the functions and sensitivity of the wetland, the characteristics of the existing buffer and the potential impacts associated with adjacent land use.

5. ~~No wetland alteration should be authorized unless it can be shown that the impact can be mitigated.~~
6. ~~When wetlands are impacted they should be replaced with the same or higher category of wetland.~~
7. ~~Compensatory mitigation should be conducted on property which is protected and managed to avoid further loss or degradation. Provisions for long term preservation of the compensation area should be required.~~
8. ~~Compensatory mitigation should follow an approved Mitigation Plan.~~
9. ~~Enhancement of existing wetlands, other than Category I and Category II wetlands, may be considered for compensation.~~
10. ~~Compensation should be completed prior to, , wetland loss.~~

5.08.03 Regulations

1. For identifying and delineating wetlands, applicants shall use the *Corps of Engineers Wetlands Delineation Manual (1987) and the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys and Coast Region (2010 or as revised)*.
2. No development or activity including removing or disturbing soil, filling, ditching or draining, changing the water level, placing obstructions, constructing a structure, destroying or altering vegetation or introducing pollutants may be permitted within a wetland or its buffer unless authorized by a conditional use permit.
3. Wetlands shall be rated according to the *Washington State Wetland Rating System for Western Washington* (Department of Ecology 2004, or as revised).
4. The following wetland buffer widths, based on wetland category and land use intensity, shall apply to all wetlands in the shoreline jurisdiction:

Wetland Category	Buffer width
I	200 feet
II	100 feet
III	50 feet
IV	25 feet

Measures shall be implemented to the extent reasonably possible to minimize impacts from high intensity land uses. Examples of those measures are shown below (see *Wetlands in Washington State*, Volume 2, Appendix 8-C for more examples):

- ◆ Direct lights away from wetlands
- ◆ Locate activity that generates noise away from wetland
- ◆ Route new runoff away from wetland
- ◆ Use BMPs to control dust

5. ~~Mitigation Sequencing. Before impacting any wetland or its buffer, an applicant shall demonstrate that the following actions have been taken. Actions are listed in the order of preference:~~

- ~~a. Avoid the impact altogether by not taking a certain action or parts of an action.~~
- ~~b. Minimize impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.~~
- ~~c. Rectify the impact by repairing, rehabilitating, or restoring the affected environment.~~
- ~~d. Reduce or eliminate the impact over time by preservation and maintenance operations.~~
- ~~e. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments.~~
- ~~f. Monitor the required compensation and take remedial or corrective measures when necessary.~~

6. ~~Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with *Wetland Mitigation in Washington State*, March 2006 or as revised.~~

7. ~~Mitigation Ratios.~~

- ~~a. Any person who alters or proposes to alter regulated wetlands shall restore or create areas of wetland in order to compensate for wetland losses. The wetlands to be created or restored shall be in-kind and accomplished prior to loss. The ratio of lost wetlands to newly created or restored shall be determined in accordance with *Wetland Mitigation in Washington State*, 2006 or as revised.~~
- ~~b. Mitigation ratios shall be consistent with *Wetlands in Washington State, Volume 2, Appendix 8 C*. The mitigation ratio table is shown below:~~

Category of Wetland	Creation or Re-establishment	Rehabilitation	Enhancement	Preservation
Category I	4:1	8:1	16:1	20:1
Category II	3:1	6:1	12:1	20:1
Category III	2:1	4:1	8:1	15:1
Category IV	1.5:1	3:1	6:1	10:1

~~Preservation shall be on a case-by-case basis and generally consistent with the above table.~~

~~8. Mitigation plan.~~

~~When mitigation is required, the applicant shall submit for approval by City a mitigation plan, prepared by a qualified professional, as part of the critical areas report. The mitigation plan shall include:~~

- ~~a. Environmental goals and objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the compensation proposed and including:
 - ~~i. A description of the anticipated impacts to the critical areas and the mitigating actions proposed and the purposes of the compensation measures, including the site selection criteria; identification of compensation goals; identification of resource functions; and dates for beginning and completion of site compensation construction activities. The goals and objectives shall be related to the functions and values of the impacted critical area;~~
 - ~~ii. A review of the best up-to-date science supporting the proposed mitigation and a description of the report author's experience to date in restoring or creating the type of critical area proposed; and~~
 - ~~iii. An analysis of the likelihood of success of the compensation project.~~~~
- ~~b. Performance standards. The mitigation plan shall include measurable specific criteria for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained and whether or not the requirements of this SMP have been met.~~
- ~~c. Detailed construction plans. The mitigation plan shall include written specifications and descriptions of the mitigation proposed, such as:
 - ~~i. The proposed construction sequence, timing, and duration;~~
 - ~~ii. Grading and excavation details;~~
 - ~~iii. Erosion and sediment control features;~~
 - ~~iv. A planting plan specifying plant species, quantities, locations, size, spacing, and density; and~~~~
- ~~d. Written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome.~~
- ~~e. Monitoring program. The mitigation plan shall include a program for monitoring construction of the compensation project, and for assessing a completed project. A protocol shall be included outlining the schedule for site monitoring~~

(for example, monitoring shall occur in years 1, 3, 5 and 7 after site construction), and how the monitoring data will be evaluated to determine if the performance standards are being met. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than ten (10) years.

f. Contingency plan. The mitigation plan shall include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met.

9. On site compensation is greatly preferred over off site compensation. Off site compensation allows replacement of Category III or IV wetlands only, and away from the site on which the wetland has been impacted by a regulated activity. The following conditions apply to off site compensation:

a. Off site compensation shall occur within the same drainage basin of the same watershed where the wetland loss occurs, provided that Category IV wetlands may be replaced outside of the watershed if there is no reasonable alternative. In such instances, the stormwater water quality treatment and storage function (quantity and quality) provided by Category IV Wetlands must be provided for within the design of the development project.

b. Off site compensation can be allowed only under one or more of the following circumstances:

i. On site compensation is not feasible due to hydrology, soils, or other factors;

ii. On site compensation is not practical due to probable adverse impacts from surrounding land uses or would conflict with a Federal, State or local public safety directive;

iii. Potential functions and value at the site of the proposed restoration are greater than the lost wetland functions and value;

iv. When the wetland to be altered is of a limited function and value and is degraded, compensation shall be of the wetland community types needed most in the location of compensation and those most likely to succeed with the highest functional value possible.

v. When the use of Ecology's site selection guidance (*Selecting Wetland Mitigation Sites Using a Watershed Approach 2009*) indicates that off site mitigation is preferable to on site mitigation.

5.09 — CRITICAL AREAS — FISH AND WILDLIFE HABITAT CONSERVATION AREAS

5.09.01 — Applicability

The Nooksack River and Fishtrap Creek have long been known to provide migration paths, spawning grounds and permanent habitats for several varieties of Salmon, Steelhead and Trout, as well as the resident Nooksack Dace and Salish Sucker. Fishtrap Creek derives its name from a large fish trap observed by early settlers at a Native American settlement near the mouth of the Stream. Tribal members caught and dried the salmon running upstream. Today the river and creek are habitat for Chum, Coho and Chinook Salmon, as well as steelhead, sea-run trout, resident trout and Dolly Varden.

5.09.02 — Policies

1. Fish and wildlife habitat conservation areas support valuable recreational and commercial fisheries. These habitats should be protected because of their importance to the aquatic ecosystem and the state and local economy.
2. Non-water dependent or non-water related uses, activities, structures and landfills should not be located in fish and wildlife habitat conservation areas.
3. Where uses, activities structures and landfills must locate in fish and wildlife habitat conservation areas, impacts on these areas should result in no net loss of ecological functions and values.
4. Developments which are outside fish and wildlife habitat conservation areas but which have the potential to significantly affect these habitats should be located and designed so they avoid significant negative impacts.
5. Impervious surfaces should be minimized in upland developments to avoid and minimize stormwater runoff peaks. Structures and uses creating significant impervious surfaces shall include stormwater detention and treatment systems to reduce stormwater runoff peaks and prevent pollution.
6. Adopt A-Stream programs and similar efforts to rehabilitate salmon and steelhead spawning streams are encouraged.
7. Fishery enhancement projects are encouraged where they will not significantly interfere with or cause significant impacts to other beneficial uses that cannot be mitigated.

5.09.03 — Regulations

1. New and expanded development within the stream channel, channel migration zone, wetlands, floodplain, hyporheic zone, shall not cause a net loss of ecological functions.

- ~~2.—Dredging and the removal of bed materials below the water line is prohibited within salmon and steelhead or other native fish species spawning areas unless it is part of an approved restoration project.~~
- ~~3.—Projects which propose water withdrawals or diversions shall maintain adequate flows within the water body to maintain salmon and steelhead habitat, taking into account existing and likely future withdrawals and diversions.~~
- ~~4.—Landfilling, dredging, channelization and other activities which negatively impact habitat values are prohibited in wetlands, ponds and side channels which provide refuge or other habitat for salmon or steelhead.~~
- ~~5.—Within salmon and steelhead habitats, permanent channel changes and realignments are prohibited.~~
- ~~6.—The removal of native aquatic and riparian vegetation within or adjacent to salmon and steelhead habitats shall be avoided, or if unavoidable, then minimized. Trees which shade the Nooksack River or Fishtrap Creek and any associated ponds and wetlands used by salmon and steelhead shall be maintained. Areas of disturbed earth shall be revegetated, as soon as viable, with native plants.~~
- ~~7.—Unless removal is needed to prevent hazards to life and properties or to enhance fish habitat, large woody debris below the ordinary high water mark shall be left in the waterway to provide salmon and steelhead habitat.~~
- ~~8.—Outfalls within or upstream of salmon or steelhead spawning areas shall be designed and constructed to minimize disturbance of salmon and steelhead spawning beds.~~
- ~~9.—The following specific activities may be permitted within a fish and wildlife habitat conservation area or associated buffer when the activity complies with the following standards; Provided all such structures shall not contain toxic materials that may come into contact with water and leach into the water body or buffer.
 - ~~a.—Roads, trails, bridges, and rights of way. Construction of trails, roadways, and minor road bridging, may be permitted in accordance with an approved critical areas report subject to the following standards:
 - ~~i.—There is no other feasible alternative route with less impact on the environment;~~
 - ~~ii.—The crossing minimizes interruption of downstream movement of wood and gravel;~~
 - ~~iii.—Roads in riparian habitat areas or their buffers shall not run parallel to the water body;~~
 - ~~iv.—Trails shall be located on the outer edge of the riparian area or buffer, except for limited viewing platforms and water crossings;~~~~~~

- ~~v. Water crossings, where necessary, shall only occur as near to perpendicular with the water body as possible;~~
- ~~vi. Mitigation for impacts is provided pursuant to a mitigation plan of an approved critical areas report;~~
- ~~vii. Road bridges are designed according to the currently adopted versions of the Department of Fish and Wildlife Fish Passage Design at Road Culverts, March 1999, and the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2000 or as revised; and~~
- ~~viii. Trails and associated viewing platforms shall not be made of continuous impervious materials.~~
- ~~b. Utility Facilities. New utility lines and facilities may be permitted to cross watercourses in accordance with an approved critical areas report if they comply with the following standards:
 - ~~i. Fish and wildlife habitat areas shall be avoided to the maximum extent possible;~~
 - ~~ii. Installation shall be accomplished by boring below the maximum depth of scour for the base flood predicted by a qualified professional and hyporheic zone of the water body and channel migration zone, where feasible;~~
 - ~~iii. The utilities shall cross at an angle greater than sixty (60) degrees to the centerline of the channel in streams or perpendicular to the channel centerline whenever boring under the channel is not feasible;~~
 - ~~iv. Crossings shall be contained within the footprint of an existing road or utility crossing where possible;~~
 - ~~v. The utility route shall avoid paralleling the stream or following a down-valley course near the channel; and~~
 - ~~vi. The utility installation shall not increase or decrease the natural rate of shore migration or channel migration.~~~~
- ~~c. Public flood protection measures. New public flood protection measures and expansion of existing ones may be permitted, subject to the City's review and approval of a critical areas report and the approval of a Federal Biological Assessment by the federal agency responsible for reviewing actions related to a federally listed species.~~
- ~~d. Stream bank stabilization. Stream bank stabilization to protect new structures from future channel migration is not permitted except when such stabilization is achieved through bioengineering or soft armoring techniques in accordance with an approved critical area report.~~

~~e.— Instream structures. Instream structures, such as, but not limited to, high flow bypasses, sediment ponds, instream ponds, retention and detention facilities, tide gates, dams, and weirs, shall be allowed only as part of an approved watershed basin restoration project approved by the City and upon acquisition of any required state or federal permits. The structure shall be designed to avoid modifying flows and water quality in ways that may adversely affect habitat conservation areas.~~

~~f.— Stormwater conveyance facilities. Conveyance structures may be permitted in accordance with an approved critical areas report subject to the following standards:~~

~~i.— No other feasible alternatives with less impact exist;~~

~~ii.— Mitigation for impacts is provided;~~

~~iii.— Stormwater conveyance facilities shall incorporate fish habitat features; and~~

~~iv.— Vegetation shall be maintained and, if necessary, added adjacent to all open channels and ponds in order to retard erosion, filter out sediments, and shade the water.~~

5.105.07 FLOOD HAZARD MANAGEMENT

5.10-015.07.01 Applicability

Flood hazard management projects are those actions taken with the primary purpose of preventing or mitigating damage due to flooding. Flood hazard management projects or programs may employ any or several physical or regulatory controls including dikes, dams, ponds engineered floodways, bioengineering, setbacks, relocation, planning and zoning (land use management). These provisions also apply to repair and maintenance of flood hazard management systems, generally along the Nooksack River, if the systems are enlarged or otherwise modified.

5.10-025.07.02 Policies

1. Flood hazard management planning should be undertaken in a coordinated manner among affected property owners and public agencies and should consider entire drainage systems. Thus, planning should consider the off-site erosion and accretion or flood damage that might occur as a result of current or future stabilization or protection structures or activities.
2. Nonstructural solutions are preferred over structural flood control devices, and should be used wherever possible, including prohibiting or limiting development in historically flood prone areas, setbacks, regulating structural design and limiting increases in peak stormwater runoff from new upland development, public education and land acquisition for additional flood storage.

3. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would, by themselves or in combination with other methods, not be able to reduce the damage and that structural solutions can be accomplished in a manner that assures no net loss of ecological functions and ecosystem-wide processes.
4. Development and shoreline modifications should not result in interference with the process of channel migration that may cause significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions associated with the rivers and streams.
5. Flood hazard protection measures should not result in a net loss of ecological functions associated with the rivers and streams.
6. Encourage the removal, elevation or relocation of structures in flood-prone areas when evaluating alternate flood control measures.
7. In design of publicly-financed or subsidized works, public pedestrian access should be provided to the shoreline for low intensity outdoor recreation.

5.10.035.07.03 Regulations

1. The following uses and activities may be permitted within the channel migration zone or floodway:
 - a. Development with a primary purpose of protecting or restoring ecological functions and ecosystem-wide processes.
 - b. Existing and ongoing agricultural practices, provided that no new restrictions to channel movement occur.
 - c. Bridges, utility lines, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in unreasonable and disproportionate cost; provided, flood hazards to other uses are not increased.
 - d. Repair and maintenance of an existing legal use, provided that such actions do not cause significant ecological impacts or increase flood hazards to other uses.
 - e. Modifications or additions to an existing nonagricultural legal use, provided that channel migration is not further limited and that the new development includes appropriate protection of ecological functions.
 - f. Development where existing legally-established conforming structures prevent active channel movement and flooding.
 - g. Measures to reduce shoreline erosion, provided that it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition.

2. New structural flood hazard reduction measures may be allowed in shoreline jurisdiction only when it can be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development, that nonstructural measures are not feasible by themselves or in combination with other methods, that impacts on ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss, and that appropriate vegetation conservation actions are undertaken consistent with WAC [173-26-221\(5\)](#).
3. New structural flood hazard reduction measures shall be placed landward of the associated wetlands, and designated vegetation conservation areas, except for actions that increase ecological functions, such as wetland restoration.
4. New structural public flood hazard reduction measures, such as dikes and levees, shall include public access unless it would cause unavoidable health or safety hazards to the public, security problems, significant ecological impacts, conflicts with the proposed use, or a cost that is disproportionate to the total long-term cost of the development.
5. The removal of gravel for flood management purposes shall require a conditional use and it shall be consistent with an adopted flood hazard reduction plan and allowed only after a biological and geomorphologic study shows that there is a long-term benefit to flood hazard reduction and does not result in a net loss of ecological functions.

5.115.08 PUBLIC ACCESS

5.11.015.08.01 Applicability

Shoreline public access is the physical ability of the general public to reach and touch the water's edge and/or the ability to have a view of the water and the shoreline from upland locations. There are a variety of types of public access to shorelines within the city, including: picnic areas, pathways and trails, promenades, bridges, street ends, ingress and egress, parking and others. The stream is particularly accessible to the public at Lynden City Park, Bender Fields, Heritage Park and along the public trail system connecting the city's parks and recreational facilities.

5.11.025.08.02 Policies

1. Public access should be considered in the review of all private and public developments (including land division) with the exception of the following:
 - a. One- and two-family dwelling units; or
 - b. Agricultural/ranching activities; or
 - c. Where deemed inappropriate due to health, safety and environmental concerns.

2. Developments, uses and activities on or near the shoreline should not impair or detract from the public's access to the water.
3. Public access should be provided as close as possible to the water's edge without adversely affecting a sensitive environment and should be designed with provisions for disabled persons.
4. Publicly owned shorelines should be limited to water-dependent or public recreational uses, otherwise such shorelines should remain protected open space.
5. Public access afforded by shoreline street ends, public utilities and rights-of-way should be preserved, maintained and enhanced.
6. Public access should be designed to provide for public safety and to minimize potential impacts to private property and individual privacy.
7. The public access area should be a comfortable and safe place to visit.
8. There should be a physical separation or other means of clearly delineating public and private space in order to avoid unnecessary user conflict.
9. Public views from the shoreline upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excessive removal of vegetation that partially impairs views.

~~5.11.03~~ 5.08.03 Regulations

1. Shoreline development by public entities, including the City of Lynden, state agencies, and public utility districts shall include public access measures as part of each development project, unless such access is shown to be incompatible due to reasons of safety, security, or impact to the shoreline environment.
2. When it is demonstrated that a more effective public access system can be achieved through alternate means, such as focusing public access at the most desirable locations, the City may institute master program provisions for public access based on that approach in lieu of uniform site-by-site public access requirements.
3. For the subdivision of land into more than four parcels, public access shall be provided except:
 - a. Where the City provides more effective public access through a public access planning process described in WAC 173-26-221 (4)(c); or
 - b. Where it is demonstrated to be infeasible due to reasons of incompatible uses, safety, security, or impact to the shoreline environment or due to constitutional or other legal limitations that may be applicable. In these cases, the City may consider alternate methods of providing public access, such as off-site improvements, viewing platforms, separation of uses through site planning and design, and restricting hours of public access.

- c. For individual single-family residences not part of a development planned for more than four parcels.
4. Non-water dependent uses shall provide public access to the shoreline, either physical or visual.
5. Assure that public access improvements do not result in a net loss of shoreline ecological functions.

5.125.09 VEGETATION MANAGEMENT

5.12-015.09.01 Applicability

Vegetation management involves both a passive and active management system. The intent of both systems is to minimize habitat loss and the impact of invasive plants, erosion, sedimentation and flooding. "Passive" vegetation management deals with protection and enhancement of existing diverse native plant communities along all shorelines including rivers, wetlands and steep bluffs. "Active" vegetation management involves aquatic weed control as well as the restoration of altered or threatened shorelines using a technology called soil bioengineering. Soil bioengineering reestablishes native plant communities as a dynamic system that stabilizes the land from the effects of erosion. Vegetation management provisions apply even to those shorelines and uses which are exempt from a permit requirement.

5.12-025.09.02 Policies

1. Native plant communities within and bordering state shorelines including but not limited to, wetlands, streams, ponds and steep slopes should be protected and maintained to minimize damage to the ecology and environment of the shoreline area.
2. Restoration of degraded shorelines due to natural or manmade causes should, wherever feasible, use soil bioengineering techniques to arrest the processes of erosion, sedimentation and flooding.

5.12-035.09.03 Regulations

1. All unique and fragile shorelines shall be protected from degradation caused by the modification of the land surface within the shoreline area and/or the adjacent uplands.
2. Restoration of any shoreline that has been disturbed or degraded shall use native plant materials with a diversity and type similar to that which originally occurred on-site.
3. Stabilization of exposed erosion prone surfaces along city shorelines shall, wherever feasible utilize soil bioengineering techniques.

4. Aquatic weed control shall only occur when native plant communities and associated habitats are threatened or where an existing water dependent use is restricted by the presence of weeds. Aquatic weed control shall occur in compliance with all other applicable laws and standards.
5. The control of aquatic weeds by derooting, rotovating or other method which disturbs the bottom sediment or benthos shall be considered development for which a substantial development permit is required.
6. Use of herbicides to control aquatic weeds shall be prohibited except where no reasonable alternative exists and weed control is demonstrated to be in the public's interest. A conditional use permit shall be required in such case.

5.135.10 VIEW PROTECTION

5.13.015.10.01 Applicability

The protection of "scenic vistas" within the shorelines and water bodies is an important shoreline management objective. Protection of significant views is a form of public access; the access being visual rather than physical. Consideration must be given to protection of the visual quality of the shoreline resource and to maintenance of view corridors to and from waterways and their adjacent shoreland features.

The protection of views as a shoreline management objective is as set forth in RCW 90.58.320 where it states:

"in the implementation of this policy and the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally."

RCW 90.58.320 also addresses view protection on adjacent lands stating:

"No permit shall be issued pursuant to this chapter for any new or expanded building or structure of more than 35 feet above average grade level on shorelines of the state that will obstruct the view of a substantial number of residences on areas adjoining such shorelines except where a master program does not prohibit the same and then only when overriding considerations of the public interest will be served."

View protection can include preventing view blockage through height limitations or requiring aesthetic enhancement with landscaping. However, view protection does not allow for excessive vegetation removal to create views or enhance partial existing views. Please refer to sections 2.10 Vegetation Management and 2.3 Clearing and Grading for additional applicable provisions.

5.13.025.10.02 Policies

1. Development uses and activities on or near the shoreline should not impair or detract from the public's visual access to the water.
2. Public views from the shoreline and upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excessive removal of vegetation that partially impairs views.
3. Visual access should be maintained, enhanced and preserved on shoreline street ends, public utilities and rights-of-way and within designated "view corridors".

5.13.035.10.03 Regulations

1. Shoreline uses and activities shall be designed and operated to avoid blocking, reducing, or adversely interfering with the public's visual access to the water and shorelines.
2. Water-dependent uses and physical public access shall have priority over maintaining views from adjacent properties, unless there is a compelling reason to the contrary.
3. Public lands such as street ends, rights-of-way and utilities shall provide visual access to the water and shoreline in accordance with RCW 35.79.035 and RCW 36.87.130.
4. In providing visual access to the shoreline, the natural vegetation shall not be excessively removed either by clearing or by topping (see section 4.04 Clearing and Grading).
5. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties to the shoreline and adjoining waters.
6. Development on the water shall be constructed of nonreflective materials that are compatible in terms of color and texture with the surrounding area.
7. Visual access shall be maintained, enhanced and preserved on shoreline street ends, public utilities and rights of way.

5.145.11 **WATER QUALITY**

5.14.015.11.01 Applicability

Water quality is affected in numerous ways by human occupation and development of shoreline areas. Typically the increase in impermeable surfaces as a result of development increases runoff causing higher peak stormwater discharge at a higher velocity which causes scouring and erosion of stream banks. Erosion increases suspended solids and carries heavy metals, household and pet wastes, fecal coliform

bacteria, and excess nutrients into the water. Increased nitrogen and phosphorous enrichment increases undesirable algae blooms which when they die back depresses levels of dissolved oxygen. The degradation of water quality adversely impacts fish and wildlife habitat, and beneficial water uses directly related to public health.

Maintaining high water quality standards and restoring degraded systems has been mandated in RCW 90.58.020:

"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."

Water quality is impacted by a variety of uses and modifications and clearly needs broad policies and regulations to protect the shorelines and the associated waters of the state.

5.14.025.11.02 Policies

1. All shoreline uses and activities should be located, designed, constructed and maintained to minimize adverse impacts to water quality and fish and wildlife resources including spawning, nesting, rearing, feeding areas and migratory routes.
2. The City should require reasonable and adequate setbacks, buffers and stormwater facilities to achieve the objective of avoiding or, if unavoidable, lessening negative impacts on water quality.
3. All measures for controlling erosion, stream flow rates or floodwaters should be based on non-structural sustainable methods such as bio-engineered measures, etc. If non-structural methods are demonstrated to be infeasible, control efforts through the use of stream control works should be located, designed, constructed and maintained so that net off-site impacts related to water do not degrade the existing water quality.
4. All measures for the treatment of runoff for the purpose of maintaining and/or enhancing water quality should be conducted on-site before shoreline development impacts waters off-site.
5. Dredging and filling activities should be conducted to minimize the effect on water quality from the addition of suspended solids, leaching of contaminants or disturbance of habitats and should be consistent with applicable regulatory agency requirements (e.g. Fish and Wildlife, Corps. of Engineers).
6. Agricultural activities such as animal feeding operations feed lot wastes, retention and storage ponds, manure storage, use of fertilizers and pesticides and other activities that can impact water quality should be minimized by implementing best management practices, buffers and setbacks.
7. The City should ensure that there is mutual consistency between shoreline management provisions and permit implementation, and other regulations that

address water quality and storm water quantity, including public health, storm water, and water discharge standards.

5-14.035.11.03 Regulations

1. All shoreline development, both during and after construction, shall avoid, or if unavoidable, minimize any increase in surface runoff so that the receiving water quality and shore properties and features are not adversely effected. Control measures include but are not limited to dikes, catch basins or settling ponds, low impact development techniques, oil interceptor drains, grassy swales, planted buffers and fugitive dust controls.
2. The proposed shoreline uses and activities shall mitigate any potential reduction in water quality. Impacts from increased runoff quantity, including erosion of river and stream systems, may be addressed by increasing storage of runoff peaks utilizing the natural hydraulic storage capacity of floodways and wetlands; provided, there is no resultant adverse impact of the ecological functions of such floodways and wetlands.
3. All industrial, commercial, residential, recreational, and agricultural uses shall adhere to all required setbacks, buffers and standards for storage basins (refer to shoreline use and environmental designation regulations for specific limits).
4. All shoreline development shall comply with the applicable requirements of the Stormwater Management Manual for Western Washington (revised 2005) (Ecology publication # 05-10-029), or as amended, and the stormwater regulations used by the City, whichever are the most protective of shoreline natural resources and water quality.

Commented [DT21]: DOE Recommended Change – Adds some flexibility to incorporate updates to the Stormwater Manual without the need to amend the SMP.

6 SHORELINE USE POLICIES & REGULATIONS

6.01 INTRODUCTION

The following detailed shoreline use provisions supplement the general shoreline policies and regulations. Use policies and regulations apply to specific shoreline use categories, addressing impacts associated with each type of use. The *use policies* establish the shoreline management principles applicable within each use category, and the *use regulations* set physical and management standards for development of that type of use. The term “Uses” refers to the ongoing functional result of development, and also any *shoreline modification activities* undertaken in preparation for, or continuance of the use.

6.02 AGRICULTURE

6.02.01 Applicability

Agriculture refers to all methods of livestock, crop, vegetation and soil management. Related activities include tilling, fertilizer application, soil preparation and maintenance, harvesting and the control of weeds, plant diseases and insect pests. The following are also considered agriculture related activities: animal husbandry practices associated with the feeding, housing, maintenance and marketing of animals such as beef cattle, milk cows, breeding stock, horses and poultry and the handling of their by-products. Associated facilities include storage areas, feed lots, fences and ditches.

Noncommercial, small-scale individual or community gardening and the keeping of livestock for non-commercial purposes is **not** considered agriculture.

6.02.02 Prohibited

Agriculture is prohibited in the Shoreline Jurisdiction.

6.03 AQUACULTURE

6.03.01 Applicability

Aquaculture is the farming or culturing of food fish, shellfish or other aquatic plants and animals in lakes, streams, inlets, estuaries and other natural or artificial water bodies. Activities associated with aquaculture may include hatching, feeding, raising and releasing of fish, and the maintenance and construction of necessary equipment, buildings and growing areas. When consistent with control of pollution and result in no net loss of ecological functions, aquaculture activities are a preferred shoreline use (see WAC 173-16-060(2)). Non-commercial aquaculture projects such as native fish enhancement facilities are considered Shoreline Habitat & Natural System Enhancement Projects governed by Ch 7.05.

6.03.02 Policies

1. Areas with high potential for aquacultural use should be identified and encouraged for aquaculture use and protected from degradation by other types of land and water uses.
2. Aquaculture activities should be given flexibility to experiment with new aquaculture techniques.
3. Consideration should be given to both the possible positive impacts and the possible detrimental impacts aquaculture development might have on the physical environment, on other existing and approved land and water uses, including public access and on the aesthetic qualities of the project area.
4. Aquaculture should not be permitted in areas where it would result in a net loss of ecological functions or conflict with other water-dependent uses.
5. Aquaculture facilities should be designed and located so as not to spread disease to native aquatic life, establish new nonnative species which cause significant ecological impacts, or significantly impact the aesthetic qualities of the shoreline.

6.03.03 Regulations

1. Impacts to ecological functions shall be mitigated according to the mitigation sequence described in WAC 173-26-020.
2. No aquatic organism shall be introduced into city waters without prior written approval of the Washington Department of Fish and Wildlife or the appropriate regulatory agency for the specific organism proposed for introduction. The required approval shall be submitted in writing to the Planning Director prior to the introduction or the granting of the permit, whichever comes first.
3. Unless otherwise provided in a shoreline permit, the repeated introduction of an approved organism in the same location shall require approval by the City only at the time the permit is issued. Introduction for purposes of this section shall mean the placing of any aquatic organism in any area within the waters of the city regardless of whether it is a native or resident organism and regardless of whether it is being transferred from within or without the waters of the city.
4. Aquacultural structures and activities that are not water-dependent (e.g., warehouses for storage of products, parking lots) shall, be located inland of the ordinary high water mark, upland of water dependent portions of the project and shall minimize detrimental impacts to the shoreline.
5. Legally established aquacultural enterprises, including authorized experimental projects, shall be protected from incompatible uses which seek to locate nearby. Demonstration of a high probability that such an adjacent use would result in damage to, or destruction of, such an aquaculture enterprise shall be grounds for denial of that use.

6. New hatchery and other aquaculture operations shall be required to maintain a minimum 50-foot wide vegetated buffer zone along the affected streamway, PROVIDED that clearing of vegetation shall be permitted for essential water access points.
7. Onshore support structures shall meet the height and setback standards established except that reduced setbacks may be permitted where necessary for the operation of hatcheries and rearing ponds.
8. Predator control shall not involve the killing or abusive harassment of birds or mammals. Approved controls include but are not limited to overhead netting for birds and 3-foot high fencing or netting for otters. The use of other nonlethal, nonabusive predator control measures shall be contingent upon receipt of written approval from the U.S. Fish and Wildlife Service, as required.
9. Fish net-pens shall meet, as a minimum, state-approved administrative guidelines for the management of net-pen cultures; where any conflict in requirements arises, the more stringent requirement shall prevail.

6.04 COMMERCIAL DEVELOPMENT

6.04.01 Applicability

Commercial development means those uses which are involved in wholesale, retail, service and business trade. Excluded from this category are residential or recreational subdivisions, and industry. Examples of existing Commercial development within City shoreline jurisdiction include a shopping center, a motel, an automotive repair business, a lumber yard, and several other small businesses.

Commented [DT22]: DOE Recommended Change: The examples listed are not supported by the SMP Commercial policies and regulations below. It appears that the intent here was to recognize some existing uses within shoreline jurisdiction.

6.04.02 Policies

1. New commercial development located in shoreline areas should include those uses and activities which are water-oriented and should be encouraged in descending order of preference as follows:

- a. Water-dependent uses;
- b. Water-related uses; and
- c. Water-enjoyment uses; and
- d. Non-water oriented uses.-

~~Non-water oriented development should not be allowed; however, when permitted as a conditional use, it should not displace water-oriented development in shoreline areas.~~

Commented [DT23]: DOE Recommended Change: This policy language is inconsistent with the corresponding regulations in 6.04.03 in regards to non-water oriented uses.

2. No commercial development should be allowed in wetlands and streams, or their buffers.

3. New commercial development on shorelines should be required to locate in those areas with existing consistent commercial uses and in a manner that will minimize sprawl and the inefficient use of shoreline areas.
4. Commercial development should be required to utilize existing transportation corridors and minimize the number of ingress/egress points. Ingress/egress should be designed to minimize potential conflicts with and impact on regular corridor traffic.
5. Commercial development should provide physical or visual access to the shoreline, and multiple use concepts should be encouraged, as a means of providing open space and recreation opportunities for the public to enjoy the shorelines of the state.
6. Commercial development should be aesthetically compatible with the surrounding area. Structures should not significantly impact views from upland properties, public roadways or other public area, and from the water.

Commented [DT24]: Scrivener's error

6.04.03 Regulations

1. The applicant shall provide the following information for the City's review of commercial development proposals:
 - a. Nature of the commercial activity, (e.g. water-dependent, water related, water-enjoyment, non-water-oriented, mixed-use) including a breakdown of specific components;
 - b. Reason for shoreline location;
 - c. Special considerations for enhancing the relationship of the activity to the shoreline environment;
 - d. Provisions for public visual and physical access to the shoreline;
 - e. Provisions to ensure that the development will not cause adverse environmental impacts and will result in no net loss of shoreline functions; and
 - f. For mixed-use proposals, present alternative uses and activities, structural locations, site designs and bulk considerations, alternative enhancements for physical and visual public access to the shoreline (both public and private space) and other considerations which address the goals and policies of the SMP.
2. Non-water-oriented commercial developments may be permitted in the Urban Shoreline Environment and by conditional use permit in the Shoreline Residential Environment where it can be demonstrated that:
 - a. The use is part of a mixed-use project that is permitted and includes water-dependent uses and provides a significant public benefit with respect to the

Shoreline Management Act's objectives such as providing public access and ecological restoration

- b. A water-oriented use is not reasonably expected to locate on the proposed site due to topography, surrounding land uses, physical features or due to the site's separation from the water by a public road or property owned by another entity.
- c. The proposed use does not usurp or displace land currently occupied by a water-oriented use and will not interfere with adjacent water-oriented uses;
- d. The proposed use will be of appreciable public benefit by increasing public use, enjoyment or access to the shoreline.
- e. The proposed use will result in no net loss of shoreline functions.

~~3. Commercial development is PROHIBITED in Natural Environments.~~

34. Non-water dependent commercial uses are not allowed over water except in the limited instances where they are auxiliary to and necessary in support of water-dependent uses and no other feasible location exists.

45. Commercial loading and service areas shall be located on the upland side of the commercial activity whenever possible, or provisions must be made to setback and screen the loading and service area from the shoreline, adjacent properties and water body.

Commented [DT25]: There are no Natural designation in Lynden

6.05 INDUSTRY

6.05.01 Applicability

Industrial developments are facilities for processing, manufacturing and storage of finished or semifinished goods. Industry is frequently located along the waterfront for access to transportation or water supply. Because the City of Lynden contains only recreationally navigable waterways, the location of appropriate industrial development within shoreline jurisdiction is for the most part less critical to the proximity of waterways. However stream waters may be used for cooling or other legally-established purposes during plant operations.

6.05.02 Policies

1. First preference should be given to those portions of a development that are water-dependent industrial uses; and second, give preference to those portions of a development that are water-related industrial uses. Nonwater oriented industrial uses should be prohibited.
2. Expansion or redevelopment of existing legally established industrial areas, facilities and services with the possibility of incorporating mixed-use development should be

encouraged over the addition and/or location of new or single-purpose industrial facilities except water-dependent or water-related uses.

3. Industrial development should not be located on sensitive and ecologically valuable shorelines such as natural accretion shoreforms, wetlands, wildlife habitat areas, nor on shores inherently hazardous for such development, such as flood-prone and erosion-prone areas and steep or unstable slopes.
4. New industrial development should be required to provide physical and/or visual access to shorelines and visual access to facilities whenever possible and when such access does not cause significant interference with operations or hazards to life and property.

6.05.03 Regulations

1. **Preference** shall be given first to water-dependent uses, then to water-oriented industrial uses.
2. New non-water-oriented industrial uses are prohibited unless they are part of a mixed-use project and the use provides a significant public benefit with respect to public access and restoration.
3. Location, design, construction or redevelopment of industrial uses shall result in no net loss of ecological functions.
4. The developer must demonstrate that adequate consideration has been given to and plans made to mitigate negative environmental impacts including but not limited to air, water, aesthetics, noise and light pollution and the loss of fish and wildlife habitat.
5. Sewage treatment, and water reclamation may only be permitted by conditional use and shall be located where they do not interfere with and are compatible with recreational, residential or other public uses of the water and shorelands.
6. Storage and/or disposal of industrial wastes is prohibited within shoreline jurisdiction, PROVIDED that waste water treatment systems may be allowed in shoreline jurisdiction only if alternate, inland areas have been adequately proven infeasible. A performance bond of at least 150 percent of the fair market value of the estimated cost of a cleanup or rehabilitation effort may be required.
7. Display and other exterior lighting shall be designed, shielded and operated to minimize glare, avoid illuminating nearby properties and prevent hazards for public traffic.

6.06 INSTREAM STRUCTURES

6.06.01 Applicability

Instream 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), recreational or fisheries enhancement. 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.

6.06.02 Policies

1. Instream structures should provide for the protection and preservation, of ecosystem-wide processes, ecological functions, and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeological processes, and natural scenic vistas.
2. The location and planning of instream structures should give due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.

6.06.03 Regulations

1. Instream structures may be permitted as a shoreline conditional use except that fish or habitat restoration projects consistent with the Ch 9 – Restoration Plan may be otherwise authorized.
2. Instream structures shall provide for the protection and preservation, of ecosystem-wide processes, ecological functions, and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeological processes, and natural scenic vistas.
3. The location and planning of instream structures shall give due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.

6.07 PARKING

6.07.01 Applicability

Parking is the temporary storage of automobiles or other motorized vehicles. Except as noted the following provisions apply only to parking that is "accessory" to a permitted shoreline use. Parking as a "primary" use and parking which serves a use not permitted in the shoreline jurisdiction is prohibited.

6.07.02 Policies

1. Parking in shoreline areas should directly serve a permitted shoreline use.
2. Parking facilities should be located and designed to minimize adverse impacts including those related to stormwater runoff, water quality, visual qualities, public access and vegetation and habitat maintenance.
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).

6.07.03 Regulations

1. Parking as a primary use shall be prohibited within the shoreline jurisdiction.
2. Parking in shoreline jurisdiction shall directly serve a permitted shoreline use.
3. Parking facilities shall be designed and landscaped to minimize adverse impacts upon adjacent shoreline and abutting properties. Landscaping shall consist of native vegetation and be planted before completion of the parking area in such a manner that plantings provide effective screening within three years of project completion.
4. Parking facilities serving individual buildings on the shoreline shall be located landward from the principal building being served, except when the parking facility is within or beneath the structure and adequately screened, or in cases where an alternate location would have less environmental impact on the shoreline.
5. Parking facilities for shoreline activities shall provide safe and convenient pedestrian and bicycle circulation within the parking area and to the shorelines.
6. Parking facilities shall provide adequate facilities to prevent surface water runoff from contaminating water bodies, using best available technologies such as low-impact development techniques, and include a maintenance program that will assure proper functioning of such facilities over time.

6.08 RECREATIONAL DEVELOPMENT

6.08.01 Applicability

Recreational development provides opportunities for the refreshment of body and mind through forms of play, sports, relaxation, amusement or contemplation. Lynden residents are fortunate to have access to numerous areas suitable for passive recreational activities such as hiking, photography, viewing and fishing, as well as several facilities for active or intensive uses. Facilities to serve more intensive users are provided at the City Parks (tennis courts, fitness trail, playground equipment), Bender Fields (baseball/softball diamonds, lawn bowling, playground equipment), the local YMCA (swimming pool, racquetball courts, a gymnasium, etc.), and a locally owned golf course and fitness facility. Completion of the city-wide trail system, and development of

additional parks and recreation facilities would complement the existing opportunities and increase public access potential.

This section applies to both publicly and privately owned shoreline facilities intended for use by the public or a private club, group, association or individual.

6.08.02 Policies

1. The coordination of local, state and federal recreation planning should be encouraged so as to mutually satisfy recreational needs. Shoreline recreational developments should be consistent with all adopted park recreation and open space plans with priority given to development for access to and use of the water.
2. The location and design of shoreline recreational developments should relate to local population characteristics, density and special activity demands. Acquisition priorities should consider these needs demands and special opportunities as well as public transit access and access for the physically impaired, where planned or available.
3. Recreational developments should be located, designed and operated to be consistent with the environment designation. Favorable consideration should be given to proposals which ~~compliment~~ complement their environment and surrounding land and water uses, and which leave natural areas undisturbed and protected.
5. A variety of compatible recreational experiences and activities should be encouraged to satisfy diverse recreational needs.
6. The linkage of shoreline parks, recreation areas and public access points with linear systems, such as hiking paths, bicycle paths, easements and/or scenic drives, should be encouraged.
7. The use of shoreline street ends and publicly owned lands for public access and development of recreational opportunities should be encouraged.
8. The use of off-road vehicles should be prohibited in all shoreline areas.

6.08.03 Regulations

1. All recreational development in the shoreline jurisdiction shall result in no net loss of ecological processes and functions.
2. Valuable shoreline resources and fragile or unique areas such as wetlands shall be used only for non-intensive and nonstructural recreation activities. Access may be limited to day-light hours or to avoid seasonal spawning, nesting or similar sensitive periods.
3. All permanent substantial recreational structures and facilities shall be located outside officially mapped floodways provided the City may grant administrative

exceptions for non-intensive minor accessory uses (e.g., picnic tables, tennis courts, etc.).

4. Substantial accessory use facilities, such as rest rooms, recreation halls and gymnasiums, commercial services, access roads and parking areas shall be setback a minimum of 100 feet from the OHWM.
5. Recreation developments that require the use of fertilizers, pesticides, or other toxic chemicals are prohibited in the shoreline jurisdiction

6.09 RESIDENTIAL DEVELOPMENT

6.09.01 Applicability

Residential development means one or more buildings, structures, lots, parcels or portions thereof which are designed for and used or intended to be used to provide a place of abode for human beings. Within the city, residential development includes single-family residences and their appurtenances, duplexes, other detached dwellings, multi-family residences, apartments, townhouses, mobile home parks, other similar group housing, condominiums, subdivisions and short subdivisions. Accessory uses and structures normally applicable to residential uses include but are not limited to garages, sheds, tennis courts, swimming pools, parking areas, fences, cabanas, saunas and guest cottages. Residential development does not include hotels, motels, or any other type of overnight or transient housing or camping facilities.

6.09.02 Single Family Residence Substantial Development Permit Exemption

A substantial development permit is not required for construction within shoreline jurisdiction by an owner, lessee or contract purchaser of a single-family residence for his own use or the use of his family, provided such construction and all normal appurtenant structures shall otherwise conform to this master program. The subject residence shall not exceed 32 feet above average grade level without the approval of a shoreline variance. A single-family residence means a detached dwelling designed for an occupied by one (1) family including those structures and developments within a contiguous ownership which are a normal appurtenance. An "appurtenance" means a structure that is necessarily connected to the use and enjoyment of a single-family residence and includes a garage, deck, driveway, utilities, fences and grading which does not exceed 250 cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark (see WAC 173-27-040 (2g)).

6.09.03 Prohibited

1. Residential development shall be prohibited within floodways, wetlands and within other hazardous areas such as steep slopes and areas with unstable soils or geologic conditions as defined in LMC 16.16 and 5.07 of the Master Program.
2. New residential structures, appurtenances and accessory structures are prohibited over water.

Commented [DT26]: DOE Required Change: Geologic hazard areas provisions are included in Section 5.07 of the SMP in addition to the provisions of LMC 16.16 which are incorporated by reference into the SMP.

Commented [DT27R26]: This should actually not be changed as 5.07 was removed.

6.09.04 Policies

1. Residential development should be permitted only where it will result in no net loss of ecological functions.
2. Residential development should be prohibited in critical areas including but not limited to wetlands, streams, steep slopes and floodways.
3. Recognizing the single purpose, irreversible and space consumptive nature of shoreline residential development, residential development, including appurtenant structures and uses, should be sufficiently set back from steep slopes and shorelines vulnerable to erosion so that structural improvements, including bluff walls, riprap and other stabilization structures, are not required to protect such structures and uses for the life of the project.
4. New residential development and accessory uses should be **prohibited** over water, in wetlands and streams, in floodways and in geologic hazard areas.
5. New residential development should be required to cluster dwelling units in order to preserve natural features, minimize physical impacts and reduce utility and road costs.

6.09.05 Regulations

1. New subdivided lots, including the roads, utilities and other infrastructure servicing them are required to be designed, configured and developed to:
 - a. Prevent the loss of ecological functions at full build-out;
 - b. Prevent the need for new shoreline stabilization or flood hazard reduction measures; and
 - c. Be consistent with applicable SMP environment designations and standards.
2. Residential development is prohibited where flood control, shoreline protection measures or bulkheading will be required to create residential lots or site area. Residential development shall be located and designed to avoid the need for structural shore defense and flood control protection works for the life of the project.
3. If wetlands or other unique and fragile features are located on a development site, clustering (or similar design) of residential units shall be required in order to avoid any development in such areas and their buffers.
4. Storm drainage and treatment facilities shall be required by the City for proposals involving five or more dwellings. All residential development including single-family residences shall control and treat stormwater so that no untreated water or unattended discharges enter surface water or wetlands. Drainage facilities shall be separated from sewage disposal and transport facilities and shall include provisions

to prevent uncontrolled and untreated entry of surface water runoff into adjacent waters and wetlands. Storm drainage facilities may include, but not be limited to retention ponds, vegetative swales, infiltration and dispersion trenches, and artificial wetlands consistent with the current version of the Ecology Storm Manual as adopted by the city PROVIDED no adverse impacts to the receiving existing wetlands and streams, or their buffers would occur.

5. Prior to issuance of a building permit, plat or short plat or other shoreline development approval, the applicant shall submit adequate plans for preservation, enhancement and/or restoration of shore vegetation and for control of erosion during and after construction, resulting in permanent shoreline vegetative stabilization. Such plans shall be part of the shoreline permit, if one is required.
6. For the purpose of accomplishing shoreline views in developed residential areas, setbacks for residential structures established in the Use-related Development Standards may be reduced in the Urban and Shoreline Residential environments (only), consistent with the following:
 - a. Where there are existing (legally nonconforming) ~~single-family~~ residences that encroach on the established setback within 50 feet of either side of the proposed building site, the required setback of the proposed structure may be reduced by review and approval of the administrator. In such cases, proposed residential structures may be set back (from OHWM) common to the average of the setbacks of the existing adjacent residences as measured from the nearest foundation corners.
 - b. In those instances where only one existing (~~legally nonconforming~~) ~~single-family~~ residence is within 50 feet of either side of the proposed building site, the required setback of the proposed structure may be reduced by review and approval of the Administrator. In such cases, proposed residential structures may be set back (from OHWM) common to the average of the setbacks of the existing adjacent residential foundation corners and the prescriptive setback on the adjacent vacant lot residences.
 - c. In no case shall the reduced setbacks applied above be less than 30 feet landward of the OHWM.
 - d. Any further setback reduction beyond that allowed in this section shall require approval of a shoreline variance permit.
 - e. The setback reduction shall not apply to applicable buffers otherwise required by the Master Program.
7. Subdivisions and planned unit developments of five or more waterfront lots/units shall dedicate, improve and provide maintenance provisions for a pedestrian easement which provides area sufficient to ensure usable access to and along the shoreline for all residents of the development and the general public. When feasible, public access easements shall be a minimum of 25 feet in width and shall

Commented [DT28]: DOE Recommended: This clarifies some of the setback language.

Commented [DT29]: DOE Recommended Change: This change reminds the reader that buffers may still apply that exceed the reduced setbacks (i.e. geologic hazards, streams, wetlands etc.)

be in compliance with public access standards contained herein (see section 5.11 Public Access)

6.10 TRANSPORTATION FACILITIES

6.10.01 Applicability

Transportation facilities are those structures and developments that aid in land and water surface movement of people, goods and services. Transportation facilities within the shoreline jurisdiction of the City are exclusively land surface movement facilities which include roads, bridges, sidewalks, bikeways and trails.

6.10.02 Policies

1. Proposed transportation facilities should result in no net loss of shoreline ecological functions.
2. Existing or planned water dependent uses should be considered when planning new transportation facilities.
3. New roads and bridges in shoreline jurisdiction should be minimized, and allowed only when related to and necessary for the support of permitted shoreline activities.
4. Trail and bicycle paths should be required along shorelines where they are compatible with the natural character, resources and ecology of the shoreline.
5. Abandoned or unused road or railroad rights-of-way which offer opportunities for public access to the water should be acquired and/or retained for such use.

6.10.03 Regulations

1. New transportation facilities shall be located where routes will have the least possible adverse effect on shoreline features and will result in no net loss of shoreline ecological functions.
2. New transportation facilities should be designed so existing or planned water dependent uses are not adversely impacted.
3. Transportation facilities and services shall utilize existing transportation corridors whenever possible, provided that facility additions and modifications will not adversely impact shoreline resources and are otherwise consistent with this program.
4. Landfills for transportation facility development are **prohibited** in water bodies, and wetlands, EXCEPT when all structural and upland alternatives have been proven infeasible and the transportation facilities provide a substantial public benefit and are necessary to support uses consistent with this program, such landfill may be permitted as a conditional use.

5. The City shall not vacate any city road which abuts a body of water unless road is not suitable for a park, viewpoint, recreation education or other public purposes.
6. New transportation facilities shall be located and designed to prevent or minimize the need for shoreline protective measures such as riprap or other bank stabilization, landfill, bulkheads, or substantial site grading. Transportation facilities allowed to cross over water bodies, and wetlands shall utilize elevated, open pile or pier structures whenever feasible. All bridges must be built high enough to allow the passage of debris and provide a minimum of 1.5 feet of freeboard above the 100-year flood level.
7. Bridge abutments and necessary approach fills shall be located landward of wetlands or the OHWM for water bodies without wetlands, PROVIDED public-owned bridge piers may be permitted in a water body as a conditional use.

6.11 UTILITIES

6.11.01 Applicability

The provisions in this section apply to all types of utility developments. These include power, telephone, cable, water and sewer lines, and stormwater systems; as well as solid waste handling and disposal, sewage treatment plants and outfalls, public high-tension utility lines on public property or easements, power generating or transfer facilities, gas distribution lines and storage facilities. Solid waste disposal means the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid or hazardous waste on any land area on or in the water. Utilities servicing a single-family residence are regulated as an appurtenance under Ch 6.09 – Residential Development and other provisions of this SMP.

6.11.02 Policies

1. Utilities should utilize existing transportation and utility sites, rights-of-way and corridors whenever possible, rather than creating new corridors. Joint use of rights-of-way and corridors should be required.
2. Utility facilities and right-of-ways should be located outside of the shoreline area to the maximum extent possible. When utility lines require a shoreline location, they should be placed under ground.
3. Utilities should be **prohibited** in wetlands, streams and their buffers, or other unique and fragile areas unless no feasible alternatives exist.
4. New utility facilities should be located so as not to require extensive shoreline protection works.
5. Utility facilities and corridors should be located so as to protect scenic views. Whenever possible, such facilities should be placed underground or alongside or under bridges.

6. Solid waste disposal activities and facilities should be **prohibited** in shoreline areas.

6.11.03 Regulations

1. All utility facilities shall be designed and located to assure no net loss of shoreline ecological functions.
2. Utility lines shall utilize existing rights-of-way, corridors and/or bridge crossings whenever possible and shall avoid duplication and construction of new or parallel corridors in all shoreline areas. Proposals for new corridors or water crossings must fully substantiate the infeasibility of existing routes.
3. Utility production and processing facilities, such as power plants and sewage treatment plants, or parts of those facilities that are nonwater-oriented shall not be allowed in shoreline areas unless it can be demonstrated that no other feasible option is available.
4. New and expanded solid waste disposal sites and facilities are prohibited.
5. New utility lines including electricity, communications, water and fuel lines shall be located underground, except where the presence of bedrock or other obstructions make such placement infeasible. Existing above ground lines shall be moved underground during normal replacement processes.
6. Transmission and distribution facilities shall cross areas of shoreline jurisdiction by the shortest, most direct route feasible, unless such route would cause significant environmental damage. The mounting of transmission and distribution facilities on bridge structures may also be allowed for stream crossings in most instances.
7. Utility developments shall be located and designated so as to avoid or minimize the use of any structural or artificial shore defense or flood protection works for the life of the project.
8. Where major facilities must be placed in a shoreline area, the location and design shall be chosen so as not to destroy, substantially impair or obstruct scenic views.
9. Utility development shall utilize required setback areas to provide screening of facilities from water bodies, wetlands and adjacent properties. Type of screening required shall be determined by the City on a case-by-case basis.

7 SHORELINE MODIFICATION POLICIES & REGULATIONS

7.01 INTRODUCTION

Shoreline modification activities, are those actions that modify the physical configuration or qualities of the shoreline area. Typically, activities are related to the construction of a physical element such as a dike, bulkhead, dredged basins or landfill, but may include other actions such as clearing, grading and the application of chemicals. Shoreline modification activities usually are undertaken in support of or in preparation for a shoreline use. A single use may require several different shoreline modification activities.

7.02 GENERAL SHORELINE MODIFICATION PROVISIONS

7.02.01 Applicability

Shoreline stabilization and flood protection are actions taken primarily to address erosion impacts to upland property and improvements caused or associated with current or flood action. These actions include structural and nonstructural methods including but not limited to: riprap, bulkheads, and bioengineering/vegetative management methods. These provisions should be used for all shoreline modification activities whether such proposals address a single property or multiple properties.

7.02.02 Regulations

1. Structural shoreline modifications are only allowed as a conditional use where they are demonstrated to be necessary to protect a primary structure or a legally existing shoreline use that is in danger of loss or substantial damage or are necessary for reconfiguration of the shoreline for mitigation or enhancement purposes.
2. Shoreline modifications should be limited as much as possible, in number and extent, to help reduce the adverse effects of shoreline modifications.
3. Shoreline modifications must be appropriate for the specific type of shoreline and environmental conditions for which they are proposed.
4. To assure that shoreline modifications individually and cumulatively result in no net loss of ecological functions, the types of shoreline modifications that have the least impact on ecological functions, requiring fewer mitigation measures shall be given preference. The cumulative impacts report for Lynden is provided in Appendix B.
5. All shoreline modifications shall be based on scientific and technical information for reach conditions.

6. Impaired ecological functions shall be enhanced where feasible and appropriate while accommodating permitted uses. As shoreline modifications occur, all feasible measures to protect ecological shoreline functions and ecosystem-wide processes shall be incorporated. Avoidance of altering existing shoreline processes that are functioning properly is paramount
7. Avoid and reduce significant ecological impacts according to the mitigation sequence in Chapter 2.

7.03 DREDGING

7.03.01 Applicability

Dredging is the removal or displacement of earth or sediments such as gravel, sand, mud or silt and/or other materials or debris from any stream, or lake and associated shorelines, side channels, and wetlands. Dredging is normally done for specific purposes or uses such as constructing and maintaining a navigational channel, dike or drainage system repair and maintenance, or obtaining bottom material.

Dredge material is disposed of on land or into water bodies and may be intended for the purpose of creating new or additional lands for other uses. Dredge spoil varies from clean river sand to organic sludge. While some of this material is deposited on land, a significant portion is dumped, intentionally or unintentionally, back into the water or immediately adjacent to the water.

7.03.02 Policies

1. Dredging in the Lynden shoreline jurisdiction should be prohibited, except as part of an approved restoration project.
2. Dredging for the primary purpose of obtaining fill or construction material should be prohibited.
3. In all cases, dredging operations should be planned and conducted to minimize adverse effects on aquatic habitat and other shoreline uses, properties, and values.
4. Dredging operations should be scheduled so as to not materially interfere with the movements of fish.
5. Dredging and dredge material disposal should be located and conducted in a manner that minimizes damage to existing ecological values and natural resources of the area to be dredged, downstream, and of the disposal site.
6. Dredge material disposal in water bodies should be discouraged, except for habitat improvement purposes or where depositing dredge material on land or off-site would be more detrimental to shoreline resources than deposition in water areas.

7.03.03 Regulations

1. Dredging may be permitted as a conditional use activity; provided, as a primary fish or wildlife restoration project consistent with Ch 9 – Restoration Plan, dredging may be separately authorized.
2. Dredging waterward of the ordinary high water mark may be permitted only:
 - a. As part of an approved habitat improvement or restoration project
 - b. In conjunction with a bridge, navigational structure or wastewater treatment facility for which there is a documented public need and where other feasible sites or routes do not exist.
 - c. To improve water flow and/or manage flooding only when consistent with an approved flood/stormwater comprehensive management plan and only if biological and geomorphologic studies demonstrates a long-term benefit to flood hazard reduction and habitat restoration.
3. When dredging is permitted, the extent of dredging shall be the minimum necessary to accommodate the proposed use and impacts which cannot be avoided should be mitigated in a manner that assures no net loss of shoreline ecological functions.
4. New development should be sited and designed to avoid or to minimize the need for new and maintenance dredging.
5. Dredging and dredge disposal shall be permitted only where it is demonstrated that the proposed actions will not:
 - a. Result in significant and/or ongoing damage to water quality, fish, and other essential biological elements; and
 - b. Adversely alter natural drainage and circulation patterns, currents, river and tidal flows or significantly reduce flood water storage capacities or characteristics.
6. Dredging for the primary purpose of obtaining fill or construction material is prohibited except when the material is necessary for the restoration of ecological functions. When allowed, the site where the fill is to be placed must be located waterward of the ordinary high-water mark except as otherwise provided for in this SMP. The project must be either associated with a MTCA or CERCLA habitat restoration project or, if approved through a shoreline conditional use permit, any other significant habitat enhancement project.
7. Dredging to construct swimming holes and similar features is prohibited.
8. Individual disposal operations shall comply with Department of Natural Resources leasing practices, the Department of Ecology Water Quality Certification process, and the permit requirements of the State Department of Fish and Wildlife and the U.S. Army Corps of Engineers.

9. Except as separately authorized consistent with Ch 9 – Restoration Plan, depositing dredge materials in water areas shall be prohibited.
10. Disposal of dredge material shall be done only in approved sites.

7.04 FILL

7.04.01 Applicability

Fill is the placement of soil, sand, rock, gravel, existing sediment or other material (excluding solid waste) to create new land, or bottom land area, along the shoreline below the OHWM, or on wetland or upland areas in order to raise the elevation. Any fill activity conducted within shoreline jurisdiction must comply with the following provisions.

7.04.02 Policies

1. Fills waterward of the OHWM should be prohibited and allowed only when necessary to support the design and construction of a shoreline restoration or environmental enhancement project or to facilitate water-dependent and/or public access uses which are consistent with this master program.
2. Fills waterward of the ordinary high-water mark for any use except ecological restoration should require a conditional use permit.
3. Shoreline fills should be designed and located so that there will be no significant damage to existing ecological systems or natural resources, and no alteration of local currents, surface water drainage or flood waters which would result in a hazard to adjacent life, property and natural resource systems.
4. Where permitted, fills should be the minimum necessary to provide for the proposed use and should be permitted only when tied to a specific development proposal that is permitted by this master program. Speculative fill activity should be prohibited.
5. Sanitary landfills should not be located in shoreline jurisdiction.

7.04.03 Regulations

1. Fills waterward of OHWM as part of an approved shoreline habitat restoration project shall be permitted.
2. Fills waterward of OHWM for the following uses may be permitted as a conditional use:
 - a. Water-dependent or public uses permitted by this master program;
 - b. Bridges for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist;

- c. For habitat enhancement projects.
3. Fills are **prohibited** in floodplains except where it can be clearly demonstrated that the geohydraulic characteristics and floodplain storage capacity will not be altered to increase flood hazard or other damage to life or property. Fills in the floodway may be permitted as a conditional use.
4. Speculative fills are **prohibited**.
5. Where fills are permitted, the fill shall be the minimum necessary to accommodate the proposed use.
6. Where existing public access is reduced, greater public access as part of the development project shall be provided.
7. Fills shall be located, designed, constructed and maintained to prevent, minimize and control all material movement, erosion and sedimentation from the affected area. All fills shall result in no net loss of environmental functions.
8. Sanitary landfills and other fills containing refuse are prohibited in shoreline jurisdiction.

7.05 SHORELINE HABITAT AND NATURAL SYSTEMS ENHANCEMENT PROJECTS

7.05.01 Applicability

Shoreline habitat and natural systems enhancement projects include those activities proposed and conducted specifically for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines, including non-commercial native species hatchery and rearing facilities.

7.05.02 Policies

1. The City of Lynden should foster habitat and natural system enhancement projects. Such projects may include shoreline modification actions such as modification of vegetation, removal of nonnative or invasive plants, native species enhancement activities e.g. fish egg boxes, shoreline stabilization, dredging, and filling, provided that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.
2. Projects that address legitimate restoration needs and priorities and facilitate implementation of the restoration plan developed pursuant to WAC 173-26-201 (2)(f) should be encouraged and supported.

7.05.03 Regulations

1. Projects that address legitimate restoration needs and priorities and facilitate implementation of the City's Shoreline Restoration Plan and Public Access Section shall be allowed.

2. Other proposed habitat enhancement or restoration projects not identified in or consistent with Ch 9 – Restoration Plan may be allowed as a conditional use.

7.06 SHORELINE STABILIZATION

7.06.01 Applicability

Shoreline stabilization includes actions taken to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, wind, or wave action. These actions include structural and nonstructural methods and the enlargement of existing structures.

Nonstructural methods include building setbacks, relocation of the structure to be protected, ground and surface water management, planning and regulatory measures to avoid a susceptible location and the need for structural stabilization.

Specific structural and nonstructural means included in this use activity are beach restoration and enhancement; soil bioengineering; riprap; bulkheads; and jetties, rock weirs, and groins. Several of these techniques could be used to address local shoreline issues.

Hard structures, especially vertical walls or near vertical riprap, often create conditions that lead to failure of the structure or pass the adverse, erosional impacts to downstream properties. In time, the substrate of the beach or bank coarsens and scours down to bedrock or a hard clay eliminating habitat for fish and other aquatic species. The footings of bulkheads are exposed or the riprap settles, leading to undermining and failure. This process is exacerbated when the original cause of the erosion and "need" for the bulkhead was from upland water drainage problems and the cumulative increased runoff from impervious surfaces and flood flows. Failed bulkheads and walls adversely impact beach and stream aesthetics, may be a safety, recreational or navigational hazard, and may adversely impact shoreline ecological functions.

"Hard" structural stabilization measures refer to those with solid, hard surfaces, such as concrete bulkheads and riprap, while "soft" structural measures rely on less rigid materials, such as biotechnical vegetation measures or beach enhancement. There is a range of measures varying from soft to hard that include:

- Vegetation preservation
- Vegetation enhancement and restoration;
- Upland drainage control;
- Biotechnical measures;
- Beach enhancement;
- Anchor trees and large woody material structures;
- Stream placement;
- Rock revetments;
- Gabions;
- Concrete groins;
- Retaining walls and bluff walls;

- Bulkheads

Generally, the harder and larger the construction measure, the greater the impact on shoreline processes, including sediment transport, geomorphology, and biological functions.

7.06.02 Policies

1. Allow structural shoreline modifications only where they are demonstrated to be necessary to support or protect an allowed primary structure or a legally existing shoreline use that is in danger of loss or substantial damage or are necessary for reconfiguration of the shoreline for mitigation or enhancement purposes.
2. Reduce the adverse effects of shoreline modifications and, as much as possible, limit shoreline modifications in number and extent.
3. Allow only shoreline modifications that are appropriate to the specific type of shoreline and environmental conditions for which they are proposed.
4. Assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions. This is to be achieved by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions, the provide or enhance ecological functions, and requiring full mitigation of identified impacts resulting from shoreline modifications.
5. Where applicable, base provisions on scientific and technical information and a comprehensive analysis of reach conditions and overall stream restoration objectives.
6. Plan for the enhancement of impaired ecological functions where feasible and appropriate while accommodating permitted uses. As shoreline modifications occur, incorporate all feasible measures to protect ecological shoreline functions and ecosystem-wide processes.
7. Avoid and reduce significant ecological impacts according to the mitigation sequence defined in Chapter 2.

7.06.03 Regulations

1. New and expanded development shall be located and designed to avoid the need for future shoreline stabilization to the extent feasible.
2. New subdivisions shall be configured so that the lots created will not require shoreline stabilization in order for reasonable development to occur using geotechnical analysis of the site and shoreline characteristics.
3. New and expanded development on steep slopes or bluffs shall be set back sufficiently to ensure that shoreline stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis.

4. New and expanded development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas is PROHIBITED.
5. New structural stabilization measures shall not be allowed except when necessary to protect existing primary structures.
6. Erosion control structures shall not result in a net loss of shoreline ecological functions.
7. New or enlarged structural shoreline stabilization measures for an existing primary structure, including residences, must be supported by a geotechnical analysis that the primary structure is in danger from shoreline erosion. Normal shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering structural shoreline stabilization.
8. New structural stabilization measures may be allowed as a conditional use for new water-dependent development and nonwater-dependent development, including single-family residences, when all of the following conditions apply:
 - a. The erosion is not being caused by upland conditions, such as the loss of vegetation or drainage problems.
 - b. Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient either together or independently.
 - c. The need to protect primary structures from damage due to erosion is demonstrated conclusively through a geotechnical report. The damage must be caused by natural processes.
9. Structural stabilization measures may be allowed to protect restoration projects or hazardous substance remediation projects pursuant to chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.
10. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion with the following conditions:
 - a. The replacement structure should be designed, located, sized, and constructed to be the minimum necessary to achieve protection and to assure no net loss of ecological functions.
 - b. Replacement walls, riprap or bulkheads shall not encroach waterward of the ordinary high-water mark or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure.

- c. Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high-water mark.
 - d. "Replacement" means the construction of a new structure to perform a shoreline stabilization 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.
11. Geotechnical reports that address the need to prevent potential damage to a primary structure shall address the necessity for shoreline stabilization by estimating time frames and rates of erosion, and report on the urgency associated with the specific situation related to the life of the project.
 12. Hard armoring solutions shall not be authorized except when a geotechnical report confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate, would foreclose the opportunity to use measures that avoid impacts on ecological functions.
 13. Where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, that report may still be used to justify more immediate authorization to protect against erosion using soft measures.
 14. Any structural shoreline stabilization measures demonstrated to be necessary shall:
 - a. Be the minimum necessary;
 - b. Use measures designed to assure no net loss of shoreline ecological functions;
 - c. Use soft approaches unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.
 - d. Ensure that publicly financed or subsidized shoreline erosion control measures do not restrict appropriate public access to the shoreline. Access should not be provided when there are incompatible uses, safety or security issues, or potential harm to ecological functions.
 15. New structural public flood hazard reduction measures, such as dikes and levees, shall dedicate and improve public access pathways unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, unacceptable and unmitigable significant ecological impacts, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.

16. All flood protection measures should be placed landward of the natural shoreline floodway boundary, including wetlands which are associated with the water body proper.

DRAFT

8 ADMINISTRATION

8.01 INTRODUCTION

8.01.01 Shoreline Permit

1. Any person wishing to undertake a development within the Lynden shoreline jurisdiction shall apply to the City for a shoreline permit. Based on the provisions of this Master Program, the Administrator shall determine if a substantial development permit, a shoreline conditional use permit, and/or a shoreline variance is required
2. All proposed uses and development occurring within the City's shoreline jurisdiction must conform to chapter 90.58 RCW, the Shoreline Management Act and this master program whether or not a permit is required.

8.01.02 General Development Review Regulations:

1. No authorization to undertake use or development on shorelines shall be granted by the City unless the use or development is determined to be consistent with the review criteria of WAC 173-27-140, as amended.
2. A substantial development permit shall be granted only when the development proposed is consistent with review criteria of WAC 173-27-150, as amended.
3. All exempt projects must obtain a letter of exemption for consistency with WAC 173-27-050, as amended.
4. Conditional use and variance permits, in addition to City approval, require review and approval by Ecology consistent with WAC 173-27-200, as amended.

8.02 LOCAL REVIEW ~~PLANNING COMMISSION~~

~~The City's review of and final decision on all shoreline permits shall be in accordance with the Lynden Municipal Code and the City's shoreline management program. As per 17.03.040 (B) of the LMC, the Planning Commission shall hear, review, and make the final decision of the City on all shoreline permits in accordance with the City's shoreline management program.~~

Commented [DT30]: Legal review recommended to clarify the administration portion of the SMP into the updated LMC 16.08. This allows those portions to be amended at a later date without having to also update the entire SMP.

8.03 SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT AND EXEMPTIONS

8.03.01 Permits Required.

1. A development, use, or activity shall not be undertaken within the jurisdiction of the Shoreline Management Act, Chapter 90.58 RCW, and this Shoreline Master Program unless it is consistent with the policy and procedures of the Shoreline Management Act, applicable state regulations and this master program.

2. A substantial development shall not be undertaken within the jurisdiction of the Shoreline Management Act, Chapter 90.58 RCW and this Shoreline Master Program unless a shoreline substantial development permit has been obtained, the appeal period has been completed, any appeals have been resolved and/or the applicant given permission to proceed by the proper authority.

8.03.02 Developments not required to obtain shoreline permit or local reviews

Commented [DT31]: Periodic Review 2017 ©:

1. Remedial actions. (RCW 90.58.355)
2. Boatyard improvements to meet NPDES requirements. (RCW 90.58.355)
3. WSDOT facility maintenance and safety improvements. (RCW 90.58.356)

8.03.028.03.03 Application and interpretation of exemptions:

1. Exemptions shall be narrowly construed: only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemption from the substantial development permit process.
2. An exemption from the substantial development permit process is not an exemption from compliance with the act or this master program, nor from any other regulatory requirements. To be authorized, all uses and developments must be consistent with the policies and provisions of this master program and the Shoreline Management Act. A development or use that is listed as a conditional use pursuant to the provisions of the master program, or is an unlisted (unclassified) use, must obtain a conditional use permit even though the development or use does not require a substantial development permit. When a development or use is proposed that does not comply with the bulk, dimensional and performance standards of the master program, such development or use can only be authorized by approval of a variance.
3. The burden of proof that a development or use is exempt from the substantial development permit process is on the applicant.
4. If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire proposed development project.
5. Local governments may attach conditions to the approval of exempted developments and/or uses as necessary to assure consistency of the project with the act and the local master program.

8.03.038.03.04 Exemptions

The following developments shall not require a substantial development permit per WAC 173-27-040, as amended:

Note: EXEMPTION FROM SUBSTANTIAL DEVELOPMENT PERMIT REQUIREMENTS DOES NOT CONSTITUTE EXEMPTION FROM THE POLICIES AND USE REGULATIONS OF THE SHORELINE MANAGEMENT ACT; THE PROVISIONS OF THIS MASTER PROGRAM; AND OTHER APPLICABLE CITY, STATE, OR FEDERAL PERMITS REQUIREMENTS.

1. Any development where the total cost or fair market value, whichever is greater, is less than ~~\$7,047~~~~\$5,718~~ or as amended by the state office of financial management, and does not materially interfere with the normal public use of the waters or shorelines of the State. For the purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on shorelines of the state as defined in RCW 90.58.030(2)(c). The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.
2. Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. "Normal maintenance" includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction except where repair involves total replacement which is not common practice or the total replacement would cause substantial adverse effects to the shoreline resource or environment.
3. Construction of the normal protective bulkhead common to single family residences. A normal protective bulkhead includes those structural and nonstructural developments installed at or near, and parallel to, the ordinary high water mark for the sole purpose of protecting an existing single family residence and appurtenant structures from loss or damage by erosion. A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land. When a vertical or near vertical wall is being constructed or reconstructed, not more than one (1) cubic yard of fill per one (1) foot of wall may be used for backfill. When an existing bulkhead is being repaired by construction of a vertical wall fronting the existing wall, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings. When a bulkhead has deteriorated such that an ordinary high water mark has been established by presence and action of water landward of the bulkhead then the replacement bulkhead must be located at or near the actual ordinary high water mark. Beach nourishment and bioengineered erosion control projects may be considered a normal protective bulkhead when any structural elements are consistent with the above requirements and when the project has been approved by the Washington Department of Fish and Wildlife.
4. Emergency construction necessary to protect property from damage by the elements. An emergency is an unanticipated and imminent threat to public health, safety, or the environment that requires immediate action within a time too short to allow full compliance with this Program. Emergency construction does not

Commented [DT32]: Change to most recent current dollar threshold by OFM

include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the Administrator to be the appropriate means to address the emergency situation, upon abatement of the emergency situation the new structure shall be removed or any permit that would have been required, absent an emergency, pursuant to RCW 90.58, WAC 173-27 or this Program, shall be obtained. All emergency construction shall be consistent with the policies of RCW 90.58 and this Program. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.

5. Construction and practices normal or necessary for farming, irrigation and ranching activities, including agricultural service roads and utilities, construction of a barn or similar agricultural structure, and the construction and maintenance of irrigation structures including, but not limited to, head gates, pumping facilities, and irrigation channels; provided, that this exemption shall not apply to agricultural activities proposed on land not in agricultural use on December 17, 2003, and further provided that a feedlot of any size, all processing plants, other activities of a commercial nature, alteration of the contour of the shorelands by leveling or filling other than that which results from normal cultivation, shall not be considered normal or necessary farming or ranching activities. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage, or other livestock feed, but shall not include land for growing crops or vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations.
6. Construction on shorelands by an owner, lessee or contract purchaser of a single family residence for his or her own use or for the use of his/her family, which residence does not exceed a height of 35 feet above average grade level and which meets all requirements of the State agency or local government having jurisdiction thereof, other than requirements imposed pursuant to chapter 90.58 RCW. "Single family residence" means a detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance. An "appurtenance" is necessarily connected to the use and enjoyment of a single family residence and is located landward of the ordinary high water mark and the perimeter of a wetland. Normal appurtenances include a garage; carport; deck; patio; driveway; utilities; fences; and grading which does not exceed 250 cubic yards. Construction authorized by this exemption shall be located landward of the ordinary high water mark.
7. Operation, maintenance, or construction canals, waterways, drains, reservoirs, or other facilities that now exist or are hereafter created or developed as part of an irrigation system for the primary purpose of making use of system water, including return flow and artificially stored ground water from the irrigation of lands.
8. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with the normal public use of the surface of the water.
9. Operation and maintenance of any system of dikes, ditches, drains, or other facilities existing on September 8, 1975 which were created developed, or utilized primarily as a part of an agricultural drainage or diking system.

10. Any project with a certification from the Governor pursuant to Chapter 80.50 RCW.
11. Site exploration and investigation activities that are prerequisite to preparation of an application for development authorized under this chapter, if:
 - a. The activity does not interfere with the normal public use of the surface waters;
 - b. The activity will have no significant adverse impact on the environment, including, but not limited to, fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values;
 - c. The activity does not involve the installation of any structure, and upon completion of the activity, the vegetation and land configuration of the site are restored to conditions existing before the activity;
 - d. A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to the local jurisdiction to ensure that the site is restored to preexisting conditions; and
 - e. The activity is not subject to the permit requirements of RCW 90.58.550.
12. The process of removing or controlling invasive or noxious weeds, as defined in RCW 17.26.020(33) through the use of an herbicide or other treatment methods applicable to weed control that are recommended by a final environmental impact statement published by the Department of Agriculture or the Department of Ecology jointly with other state agencies under Chapter 43.21C.RCW.
13. Watershed restoration projects as defined herein. The Administrator shall review the projects for consistency with the shoreline master program in an expeditious manner and shall issue its decision along with any conditions within forty-five (45) days of receiving a complete application form from the applicant. No fee may be charged for accepting and processing applications for watershed restoration projects as used in this section.
 - a. "Watershed restoration project" means a public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or a part of the plan and consists of one or more of the following activities:
 - i. A project that involves less than ten (10) miles of streamreach, in which less than twenty-five (25) cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no existing vegetation is removed except as minimally necessary to facilitate additional plantings;
 - ii. A project for the restoration of an eroded or unstable stream bank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; or

- iii. A project primarily designed to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state, provided that any structure, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than two hundred (200) square feet in floor area and is located above the ordinary high water mark of the stream.
 - b. "Watershed restoration plan" mean a plan, developed or sponsored by the department of fish and wildlife, the department of ecology, the department of natural resources, the department of transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a city, a county, or a conservation district that provides a general program and implementation measures or actions for the preservation, restoration, re-creation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to chapter 43.21C RCW, the State Environmental Policy Act;
14. A public or private project, the primary purpose of which is to improve fish or wildlife habitat or fish passage, when all of the following apply:
- a. The project has been approved in writing by the department of fish and wildlife as necessary for the improvement of the habitat or passage and appropriately designed and sited to accomplish the intended purpose;
 - b. The project has received hydraulic project approval by the department of fish and wildlife pursuant to chapter 75.20 RCW; and
 - c. The Administrator has determined that the project is consistent with the local shoreline master program. The Administrator shall make such determination in a timely manner and provide it by letter to the project proponent.

15. The external or internal retrofitting of an existing structure with the exclusive purpose of compliance with the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12101 et seq.) or to otherwise provide physical access to the structure by individuals with disabilities.

Commented [DT33]: Periodic Review Checklist 2016 (a)

8.03.048.03.05 Site Inspection

Before determining that a proposal is exempt, the Administrator may conduct a site inspection to ensure that the proposal meets the exemption criteria. The exemption granted may be conditioned to ensure that the activity is consistent with the Master Program and the Shoreline Management Act.

8.03.058.03.06 Hazardous substance remedial actions.

The procedural requirements of chapter 90.58 RCW shall not apply to a project for which a consent decree, order or agreed order has been issued pursuant to 70.105D RCW or to the Department of Ecology when a remedial action under chapter 70.105D RCW. The Department of Ecology shall, in consultation with the City, assure that such projects comply with the substantive requirements of chapter 90.58 RCW, chapter 173-26 WAC and the local master program.

~~8.03-06~~ 8.03.07 U.S. Army Corps of Engineers Section 10 or Section 404 Permit

Whenever a development falls within the exemption criteria and the development is subject to a U.S. Army Corps of Engineers Section 10 or Section 404 Permit, the Administrator shall prepare a Statement of Exemption, and transmit a copy to the applicant and the Washington State Department of Ecology. Exempt development as defined herein shall not require a substantial development permit, but may require a conditional use permit, variance and/or a Statement of Exemption.

8.04 REVISION OF PERMITS

8.04.01 Revision Submittal

When an applicant wishes to revise a permit, the applicant must submit detailed plans and text describing the proposed substantive changes in terms of design, terms or conditions from that which is approved in the permit. Changes are substantive if they materially alter the project in a manner that relates to its conformance to the terms and conditions of the permit, the master program and/or the policies and provisions of chapter 90.58 RCW. Changes which are not substantive in effect do not require approval of a revision. If the Administrator determines that the revisions proposed are consistent with the applicable master program and the act and, are within the scope and intent of the original permit, consistent with WAC 173-27-100, as amended, the Administrator may approve the revision. "Within the scope and intent of the original permit" means all of the following:

1. No additional overwater construction is involved;
2. Ground area coverage and height is not increased more than ten (10) percent from the provisions of the original permit;
3. The revision does not authorize development to exceed height, setback, lot coverage, or any other requirement of the Master Program, except as authorized under a variance granted as the original permit or a part thereof;
4. Additional or revised landscaping is consistent with conditions (if any) attached to the original permit and this SMP;
5. The use authorized pursuant to the original permit is not changed; and
6. No substantial adverse environmental impact will be caused by the project revision.

8.04.02 Scope of Revision

If the sum of the proposed revision and any previously approved revisions do not meet the criteria above, an application for a new shoreline permit must be submitted. If the revision involves a conditional use or variance which was conditioned by the Department of Ecology, the revision also must be reviewed and approved, approved with conditions, or denied by the Department of Ecology.

8.04.03 Final Ruling

The revision approval, including the revised site plans and text (consistent with the provisions of WAC 173-27-180, as amended, as necessary to clearly indicate the authorized changes), and the final ruling on consistency with this section shall be filed with the Department of Ecology. In addition, the City shall notify parties of record of its action.

8.04.04 Revision of a Conditional Use Permit or Variance

If the revision to the original permit involves a conditional use or variance, the City shall submit the revision to the Department of Ecology for their approval, approval with conditions, or denial, and shall indicate that the revision is being submitted under the requirements of the WAC 173-27-100, as amended. The Department of Ecology shall render and transmit to the City and the applicant its final decision within fifteen (15) days of its receipt of the submittal from the City. The City shall notify parties of record of the Department of Ecology's final decision.

8.04.05 When the Revised Permit is Effective

The revised permit is effective immediately upon final action by local government or, when appropriate under subsection 8.07.04 above, upon final action of the Department of Ecology.

8.04.06 Appeals of Revisions

A ~~City Lynden Planning Commission~~, or Department of Ecology decision on revision to the permit shall be appealed within twenty-one (21) days of such decision, in accordance with RCW 90.58.180 and WAC 173-27-100, as amended.

Commented [DT34]: Legal review recommended

8.05 SHORELINE PERMIT APPEALS

8.05.01 Local Appeals

Any appeal of administrative interpretations and approvals, ~~or Planning Commission decisions~~ will be in accordance with ~~the Lynden Municipal Code, Chapter 17.11 LMC.~~

Commented [DT35]: Legal review recommended

8.05.02 Appeal to the State Shoreline Hearings Board

Any person aggrieved by the granting or denying of a substantial development permit, variance, or conditional use permit, or by the rescinding of a permit pursuant to the provisions of this Master Program, may seek review from the State of Washington Shorelines Hearing Board by filing a request for the same within twenty-one (21) days of receipt of the final order and by concurrently filing copies of such request with the Department of Ecology and the Attorney General's office. State Hearings Board regulations are provided in RCW 90.58.180 and Chapter 461-08 WAC. A copy of such appeal notice shall also be filed with the Lynden City Shoreline Administrator.

8.05.03 Permit Filing

Commented [DT36]: Periodic Review Checklist: 2017 (d). Clarifying filing procedures

After all local permit administrative appeals or reconsideration periods are complete and the permit documents are amended to incorporate any resulting changes, the City will mail the permit using return receipt requested mail to the Department of Ecology regional office and the Office of Attorney General. Projects that require both Conditional Use Permits and/or Variances shall be mailed simultaneously with any Substantial Development Permits for the project.

1. The permit and documentation of the final local decision will be mailed together with the complete permit application; a findings and conclusions letter; a permit data form (cover sheet); and applicable SEPA documents.

2. Consistent with RCW 90.58.140(6), the state's Shoreline Hearings Board twenty-one day appeal period starts with the date of filing, which is defined below:

a) For projects that only require a Substantial Development Permit: the date that Ecology receives the City's decision.

b) For a Conditional Use Permit or Variance: the date that Ecology's decision on the Conditional Use Permit or Variance is transmitted to the applicant and the City.

c) For Substantial Development Permits simultaneously mailed with a Conditional Use Permit or Variance to Ecology: the date that Ecology's decision on the CUP or VAR is transmitted to the applicant and the City.

8.06 VARIANCES AND CONDITIONAL USE PERMITS

These provisions should be applied in a manner which, while protecting the environment, will assure that a person will be able to use his/her property in a fair and equitable manner.

8.06.01 Variances – Criteria for Granting Variances:

These provisions should be applied in a manner which, while protecting the environment, will assure that a person will be able to use his/her property in a fair and equitable manner. The purpose of a variance permit is strictly limited to granting relief to specific bulk dimensional, or performance standards set forth in the Master Program, and where there are extraordinary or unique circumstances relating to the property such that the strict implementation of the Master Program would impose unnecessary hardships on the applicant or thwart the SMA policies as stated in RCW 90.58.020.

Construction pursuant to this permit shall not begin nor can construction be authorized except as provided in RCW 90.58.020. In all instances, extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect.

1. Variance permits for development and /or uses that will be located landward of the OHWM, and/or wetland, , may be authorized *provided* the applicant can demonstrate all of the following:

- a. That the strict requirements of the bulk, dimensional, or performance standards set forth in the Master Program preclude or significantly interfere with reasonable use of the property not otherwise prohibited by the Master Program.
 - b. That the hardship described above (in 1.a) is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the Master Program and not, for example, from deed restrictions or the applicant's own actions.
 - c. That the design of the project will be compatible with other authorized uses in the area and with uses planned for the area under the comprehensive plan and this Master Program and will not cause adverse impacts to the shoreline environment.
 - d. That the requested variance does not constitute a grant of special privilege not enjoyed by the other properties in the area.
 - e. The variance is the minimum necessary to afford relief.
 - f. That the public interest will suffer no substantial detrimental effect.
2. Variance permits for development that will be located either waterward of the OHWM or within wetlands may be authorized *provided* the applicant can demonstrate all the criteria stated above in 1 are met, except 1a, as well as the following:
- a. That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes *all reasonable use* of the property
 - b. That the public rights of navigation and use of the shorelines will not be adversely affected by granting the variance.
3. In the granting of all variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if variances were granted to other development in the area where similar circumstances exist, the total of the variances shall also remain consistent with the policies of RCW 90.58.020 and shall not cause substantial adverse effects to the shoreline environment.
4. Requests for varying the *use* to which a shoreline area is to be put are not requests for variances but rather requests for conditional uses permits, and shall be evaluated based on the criteria established in Ch 8.09.02 – Conditional Uses. Variances from the SMP use regulations are prohibited.

Commented [DT37]: DOE Required Change: For consistency with WAC 173-27-170(4)

8.06.02 Conditional Uses:

The purpose of a conditional use permit is to allow greater flexibility in ~~varying~~ the application of the use regulations of the Master Program in a manner consistent with the policies of RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by the City of Lynden or the Department of Ecology to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the SMA or this SMP.

Commented [DT38]: DOE Required Change: For consistency with WAC 173-27-160.

1. Uses which are classified or set forth as conditional uses may be authorized, *provided* the applicant can demonstrate all of the following:
 - a. That the proposed use is consistent with the policies of RCW 90.58.020 and ~~the policies of~~ the Master Program;
 - b. That the proposed use will not interfere with the normal public use of public shorelines;
 - c. That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and this SMP;
 - d. That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located; and
 - e. That the public interest suffers no substantial detrimental effect.

Commented [DT39]: DOE Required Change: For consistency with WAC 173-27-160(1)(a).

2. Other uses which are not classified or set forth in the applicable Master Program may be authorized as conditional uses provided the applicant can demonstrate consistency with, in addition to the criteria set forth above, that extraordinary circumstances preclude reasonable use of the property in a manner consistent with the use regulations of the Master Program.
3. Uses which are specifically prohibited by the Master Program may not be authorized.
4. In the granting of all conditional use permits, consideration shall be given to the cumulative impact of additional request for like actions in the area. For example, if conditional use permits were granted to other development in the area where similar circumstances exist, the total of the conditional uses shall also remain consistent with the policies of RCW 90.58.020 and this SMP and shall not produce substantial adverse effects to the shoreline environment.

Commented [DT40]: DOE Required Change: For consistency with WAC 173-27-160(3).

8.07 NONCONFORMING USE AND DEVELOPMENT STANDARDS.

8.07.01 ~~Definitions Nonconforming Use or Development~~

1. "Nonconforming use" means an existing shoreline use that was lawfully established prior to the effective date of the act or the applicable master program, but which does not conform to the present use regulations due to subsequent changes to the master program.

Commented [DT41]: Periodic Review Checklist: 2017 (g). Clarifying nonconforming use language.

~~or development" means a shoreline use or development which was lawfully constructed or established prior to the effective date of the act or this master program, or amendments thereto, but which does not conform to present regulations or standards of the program.~~

~~2. "Nonconforming development" or "nonconforming structure" means an existing structure that was lawfully constructed at the time it was built but is no longer fully consistent with present regulations such as setbacks, buffers or yards; area; bulk; height or density standards due to subsequent changes to the master program.~~

~~3. "Nonconforming lot" means a lot that met dimensional requirements of the applicable master program at the time of its establishment but now contains less than the required width, depth or area due to subsequent changes to the master program.~~

8.07.02 Nonconforming structures

~~1. Structures that were legally established and are used for a conforming use but are nonconforming with regard to setbacks, buffers, or yards; area; bulk; height or density may continue as legal nonconforming structures and may be maintained and repaired.~~

~~2. Nonconforming structures may be enlarged or expanded provided that said enlargement meets the applicable provisions of the master program. In the absence of other more specific regulations, proposed expansion shall not increase the extent of nonconformity by further encroaching upon or extending into areas where construction would not be allowed for new structures, unless a shoreline variance permit is obtained.~~

~~3. Nonconforming single-family residences that are located landward of the ordinary high water mark may be enlarged or expanded in conformance with applicable bulk and dimensional standards by the addition of space to the main structure or by the addition of normal appurtenances as defined in WAC 173-27-040 (2)(g) upon approval of a conditional use permit.~~

~~4. A structure for which a variance has been issued shall be considered a legal nonconforming structure and the requirements of this section shall apply as they apply to preexisting nonconformities.~~

~~5. In the absence of other more specific regulations, a structure which is being or has been used for a nonconforming use may be used for different nonconforming use only upon the approval of a conditional use permit. A conditional use permit may be approved only upon a finding that:~~

~~a) No reasonable alternative conforming use is practical; and~~

~~b) The proposed use will be at least as consistent with the policies and provisions of the act and the master program and as compatible with the uses in the area as the preexisting use.~~

~~In addition, such conditions may be attached to the permit as are deemed necessary to assure compliance with the above findings, the requirements of the master program and the Shoreline Management Act and to assure that the use will not become a nuisance or a hazard.~~

~~6. A nonconforming structure which is moved any distance must be brought as closely as practicable into conformance with the applicable master program and the act.~~

7. ~~If a nonconforming development is damaged to an extent not exceeding seventy-five percent of the replacement cost of the original development, it may be reconstructed to those configurations existing immediately prior to the time the development was damaged, provided that application is made for the permits necessary to restore the development within two years of the date the damage occurred.~~

~~8.07.03 Nonconforming Uses~~

- ~~1. Uses that were legally established and are nonconforming with regard to the use regulations of the master program may continue as legal nonconforming uses.~~
- ~~2. In the absence of other more specific regulations in the master program, such uses shall not be enlarged or expanded, except upon approval of a conditional use permit.~~
- ~~3. If a nonconforming use is discontinued for twelve consecutive months or for twelve months during any two-year period, the nonconforming rights shall expire and any subsequent use shall be conforming unless re-establishment of the use is authorized through a conditional use permit which must be applied for within the two-year period. Water-dependent uses should not be considered discontinued when they are inactive due to dormancy, or where the use included phased or rotational operations as part of typical operations. A use authorized pursuant to subsection 8.07.02(5) of this section shall be considered a conforming use for purposes of this section.~~

~~8.07.04 Nonconforming Lot~~

- ~~1. A nonconforming lot may be developed if permitted by other land use regulations of the local government and so long as such development conforms to all other requirements of the applicable master program and the act.~~
- ~~2. A use which is listed as a conditional use but which legally existed prior to adoption of the master program or any relevant amendment and for which a conditional use permit has not been obtained shall be considered a nonconforming use.~~
- ~~3. A structure for which a variance has been issued shall be considered a legal nonconforming structure and the requirements of this section shall apply as they apply to preexisting nonconformities.~~

Commented [DT42]: Replaced with the above Periodic Review suggested language.

~~8.07.02 Expanding or Enlarging Nonconforming Uses and Structures~~

- ~~1. Structures that were legally established and are used for a conforming use but which are nonconforming with regard to setbacks, buffers or yards; area; bulk; height or density may be maintained and repaired and may be enlarged or expanded provided the enlargement does not increase the extent of nonconformity by further encroaching upon or extending into areas where construction or use would not be allowed for new development or uses.~~

~~2. Uses and developments that were legally established and are nonconforming with regard to the use regulations of the master program may continue as legal nonconforming uses. Such uses shall not be enlarged or expanded;~~

~~3. Nonconforming single family residences that are located landward of the ordinary high water mark may be enlarged or expanded in conformance with applicable bulk and dimensional standards by the addition of space to the main structure or by the addition of normal appurtenances as defined in WAC 173-27-040 (2)(g) upon approval of a conditional use permit.~~

~~8.07.03 Changing Uses of Nonconforming Structures~~

~~1. A structure which is being or has been used for a nonconforming use and has not been abandoned may be used for a different nonconforming use only upon the approval of a conditional use permit. A conditional use permit may be approved only upon a finding that:~~

~~a. No reasonable alternative conforming use is practical; and~~

~~b. The proposed use will be at least as consistent with the policies and provisions of the act and the master program and as compatible with the uses in the area as the preexisting use.~~

~~2. In addition such conditions may be attached to the permit as are deemed necessary to assure compliance with the above findings, the requirements of the master program and the Shoreline Management Act and to assure that the use will not become a nuisance or a hazard.~~

~~8.07.04 Moving a Nonconforming Structure~~

~~A nonconforming structure which is moved any distance must be brought into conformance with the applicable master program and the act, provided if the new location is significantly more consistent with the provisions of the SMA and SMP, the relocation may be authorized as a conditional use.~~

~~8.07.05 Repairing Damaged Nonconforming Uses~~

~~If a nonconforming development is damaged to an extent not exceeding seventy five percent of the replacement cost of the original development, it may be reconstructed to those configurations existing immediately prior to the time the development was damaged with the following conditions:~~

~~1. Application is made for the permits necessary to restore the development within (1) one year of the date the damage occurred;~~

~~2. All permits are obtained and the restoration is completed within (3) three years of permit issuance.~~

~~8.07.06 — Abandoned uses~~

~~If a nonconforming use is discontinued for twelve consecutive months or for twelve months during any two-year period, the nonconforming rights shall expire and any subsequent use shall be conforming. A use authorized pursuant to subsection 8.10.03 of this section shall be considered a conforming use for purposes of this section.~~

~~8.07.07 — Substandard lots~~

~~An undeveloped lot, tract, parcel, site, or division of land located landward of the ordinary high water mark which was established in accordance with local and state subdivision requirements prior to the effective date of the act or this master program but which does not conform to the present lot size standards may be developed if permitted by other land use regulations of the local government and so long as such development conforms to all other requirements of this master program and the act.~~

8.08 RESCINDING A PERMIT

8.08.01 By the City

Permits may be rescinded by the City upon a finding that the permittee has not complied with permit conditions. Notice must be provided to the permittee and the public and a public hearing will be held.

8.08.02 By Ecology

Ecology may petition the City to rescind a permit the agency believes is in noncompliance. Ecology must first provide written notice to the City that the noncompliance exists and wait thirty days for the local government to have the opportunity to rescind the permit. Within fifteen days after the end of the thirty day period and upon written notice to the permittee and the City, Ecology may petition the Shoreline Hearings Board to rescind the permit.

8.08.03 Civil Penalties and Other Compliance Remedies

Unpermitted development and/or use in violation of the SMA or this SMP may be the subject of any or all of the following compliance measures: cease and desist order, order to take corrective action, civil and/or criminal penalties, and permit recession. Violation of the terms of a permit is also subject to civil penalties and enforcement orders from the local government and/or Ecology.

Aiding or Abetting.

Any person, such as a contractor who, through an act of commission or omission procures, aids or abets in the violation shall be considered to have committed a violation for the purposes of the civil penalty.

8.09 ENFORCEMENT AND PENALTIES

The choice of enforcement action and the severity of any penalty should be based on the nature of the violation and the damage or risk to the public or to public resources. The existence or degree of bad faith of the persons subject to the enforcement action, benefits that accrue to the violator and the cost of obtaining compliance may also be considered.

All provisions of the Master Program shall be enforced by the Shoreline Program Administrator and/or his/her designated representatives in accordance with LMC 17.13 and Chapter 173-27 WAC, as amended.

8.10 MASTER PROGRAM REVIEW

This master program should be periodically reviewed and necessary amendments made to reflect changing local circumstances, new information or improved data and changes in State statutes and regulations. This review process shall be consistent with [RCW 90.58.080](#) and [WAC 173-26-090](#) requirements and shall include a local citizen involvement effort and public hearing(s) to obtain the views and comments of the public.

Commented [DT43]: Periodic Review Checklist: 2017 (h)

During the master Program review, the cumulative effects of all project review actions in shoreline areas will be evaluated.

8.11 AMENDMENTS TO THE SHORELINE MASTER PROGRAM

8.11.01 Application for Amendments to the Shoreline Master Program

The provisions of this Shoreline Master Program may be amended as provided in RCW 90.58.120, 90.58.200 and Chapter 173-26 WAC. Any person, including the City, may submit an application for an amendment to the Administrator together with any required fee. Any amendment to local SMPs must satisfy the requirements of the State Environmental Policy Act (Chapter 43.21C RCW) and Chapter 197-11 WAC. The City Council shall approve, modify, or deny applications for amendments. As provided by state law, amendments or revisions to shoreline master programs are not effective unless approved by the Washington State Department of Ecology.

8.11.02 Amendments to Shoreline maps or Designations

Proposals for shoreline environment re-designation (i.e., amendments to the shoreline maps and descriptions), must demonstrate consistency with the criteria set forth in WAC 173-26 and follow the process outlined above.

8.12 SEVERABILITY

If any provisions of this Master Program, or its application to any person or legal entity or parcel of land or circumstances is held invalid, the remainder of the Master Program, or the application of the provisions to other persons or legal entities or parcels of land or circumstances, shall not be affected.

8.13 CONFLICT OF PROVISIONS

Should a conflict occur between the provisions of this SMP or between this SMP and the laws, regulations, codes or rules promulgated by any other authority having jurisdiction within the city, the requirement that is most protective of the shoreline resources shall be applied, except when constrained by federal or state law, or where specifically provided otherwise in this SMP.

DRAFT

9 RESTORATION PLAN

9.01 INTRODUCTION

This restoration plan is a framework for restoration and is based on the Inventory and Characterization Report which was prepared for the City of Lynden. The restoration plan is designed to assist the City of Lynden in meeting the “no net loss” standard of the SMP guidelines. A map of the shorelines in the City of Lynden and the shore line reach designations is provided in Appendix A - Map Folio.

9.02 DEGRADED AREAS, IMPAIRED FUNCTIONS AND SITES WITH POTENTIAL FOR RESTORATION

As part of the SMP process, an Inventory and Characterization Report was prepared which summarized the watershed process, shoreline function, and alterations.

9.02.01 DEGRADED AREAS AND IMPAIRED FUNCTIONS

Typical of urban streams, Fishtrap Creek is nearly completely developed in the City of Lynden. Most portions of the creek have been permanently impaired by development (pavement and buildings). Impaired functions include alteration to the hydrology (low in-stream flows and increased flooding during rain events), sediment cycle (high turbidity during rain events, erosion of stream banks, and channelization of portion of the stream), nutrient loading, and lack of large woody debris in the stream and in the riparian areas.

A summary of the processes and alterations for each reach of the Fishtrap Creek and the Nooksack River reach is provided in Table 9-1. The rankings in Table 9-1 are based on the Inventory and Characterization Report conducted for the Lynden SMP update. The rankings reflect the urban nature of the Fishtrap Creek and may not be directly comparable to rankings performed by other jurisdictions.

9.02.02 SITES WITH RESTORATION POTENTIAL

The permanently impaired portions of Fishtrap Creek have low restoration potential due to development along the shoreline but efforts should be taken to educate landowners on steps which can be taken to restore some function of the shoreline including proper landscaping (including increasing the shade and removal of undesirable vegetation), nutrient loading, “soft” armoring methods, and other practices which can provide some benefit to Fishtrap Creek.

One side effect of the urbanization in Lynden is the increase in peak flow in Fishtrap Creek. In portion of the creek with a confined channel, the increased flows can lead to extensive erosion along the stream bank. Technical experts identified ~~a~~ particular location along North Bridgeview Drive that is undergoing extensive erosion. This location is shown in Map Folio A. Additional creek capacity during higher flow events

Commented [DT44]: Scrivener's error

Table 9-1. Lynden SMP Reach Restoration Potential

	Hydrology				Sediment				Water Quality				Large Woody Debris		Riparian Vegetation		Comments
	Groundwater Infiltration and Recharge		Water Storage		Erosion		Sediment Storage		Inputs		Storage & Nutrient Degradation		Process	Alteration	Process	Alteration	
	Process	Alteration	Process	Alteration	Process	Alteration	Process	Alteration	Process	Alteration	Process	Alteration					
Reach 1	M	L	H	M	M	M	H	M	L	L	H	L	H	M	H	M	Reach 1 is the most natural part of Fishtrap. Efforts should include restoring vegetation to increase LWD and reduce surface erosion potential along step slopes.
Reach 2	H	H	L	H	H	H	L	H	M	M	L	H	H	M	H	H	Reach 2, 3, and 4 are all highly altered. Efforts should be undertaken to restore wetlands where land is available and increase riparian function.
Reach 3	H	H	L	H	M	H	L	H	M	M	L	H	H	H	H	H	
Reach 4	M	H	M	H	M	M	M	M	M	M	M	M	H	H	H	M	
Nooksack River	M	M	H	H	L	H	H	H	M	L	M	M	L	H	L	H	Armoring and levee construction have separated the river from the floodplain. Creation and protection of wetlands and increasing riparian function be possible in this reach.

Orange indicates moderate or high process intensity with high degree of alteration
 Yellow indicates high process intensity with moderate degree of alteration or low intensity with high degree of alteration
 White indicates moderate or low intensity with moderate alteration and areas with low alteration

Based on Inventory and Characterization Report for Lynden

such as overflow channel construction coupled with soft armoring measures along the stream could reduce the erosion in this area.

Undeveloped areas along Fishtrap Creek should be preserved if possible. Creek buffers can be established to retain some degree of riparian function. In addition, overflow and side channels should be considered to retain adequate hydraulic capacity during high flow events. A map of sites with restoration potential is provided in Map Folio A.

Commented [DT45]: Scrivener's error

Undeveloped areas in the Fishtrap Creek Shoreline Jurisdiction with potential for restoration include the following properties (shown in Map Folio A):

1. The undeveloped property south of Kok Road (restoration efforts have been undertaken in this area including the placement of large woody debris and revegetation).
2. The Northwest Washington Fairgrounds property which borders Fishtrap Creek is undeveloped and has the potential to support restoration projects.
3. The City Park and City Trail system offer opportunities for restoration including revegetation and riparian enhancement. The City Park property offers excellent public access and could be used to provide education about the creek and the function of the shorelands.
4. The Lynden Middle School property also offers restoration opportunities as this portion of Fishtrap Creek (on the south side) is undeveloped.
5. The area north of Main Street, though privately owned, has the potential for restoration if the property could be purchased or an easement obtained.

9.02.03 Other Restoration opportunities

The Fishtrap Creek channel in Heritage Park is restricted due to vegetation on the channel configuration. Additional overflow channels in this area could improve stream capacity in this area.

Another opportunity to restore shoreline function along Fishtrap Creek would be moving the dike in the southern portion of Reach 1 to allow the creek to retain a more natural character in this area. This project would be difficult as the dike also serves as a flood protection measure for the Nooksack River.

The 17th Street Bridge is a known fish passage barrier due to outfall drop and sheet flow in low flow conditions. The Bridge is constructed as a triple culvert. Replacement or modification of the bridge to allow improved salmon passage would also be a benefit to the creek.

Commented [DT46]: Scrivener's error

The Pepin Creek Reroute is an important project currently being developed which involves rerouting drainage ditches (principally the Double ditches and Benson Road ditch) in the north part of the City of Lynden. Flooding has been a common problem in this area. Channel capacity is limited and habitat has been highly altered along these

ditches due to straight-line hydrology and loss of riparian area. In addition, Double Ditch has seen returns of Steelhead and other salmonids which could be enhanced by better habitat.

This is not directly part of the Lynden Shoreline Jurisdiction but these water bodies are major tributaries to Fishtrap Creek and play an important role in the delivery of water, sediment, and toxins to Fishtrap Creek.

In addition to the Pepin Creek Reroute, restoration of the Fishtrap Creek water-shed north of the City of Lynden would provide a benefit to the Lynden Shoreline Jurisdiction especially related to mitigating flow events and improving water quality. Some options include improved water treatment of the Benson Road and Depot Road ditches prior to entering the culverts south of Badger Road and improving the Fishtrap Creek channel itself north of Lynden.

A map of these restoration opportunities is provided in Map Folio A.

9.03 GOALS AND PRIORITIES FOR RESTORATION OF DEGRADED AREAS AND IMPAIRED FUNCTION

The ultimate goal of the restoration is to restore shoreline functions and to achieve no-net-loss in shoreline function when the SMP is adopted. The restoration of shoreline function will take time and therefore some overarching goals and priorities are important to the process.

Loss of wetlands along both Fishtrap Creek and the Nooksack River has negatively affected the water quality and function of the shorelines. One of their principle functions is to provide water storage and retention which can improve low flow conditions during the dry season and attenuate flooding during the wet season. As these two issues have been identified as critical issues in Fishtrap Creek, the preservation of wetlands to perform this vital function should be considered.

Native plant rRevegetation along Fishtrap Creek is important for restoring shoreline function. Proper vegetation reduces erosion potential by stabilizing banks and steep slopes and provides shade for the creek which reduces water temperature and increases dissolved oxygen. Vegetation along the stream also improves riparian function by providing water filtering and habitat.

Fishtrap Creek in Lynden is also lacking in large woody debris and recruitment potential is low in most reaches in Lynden. Large woody debris provides habitat for aquatic organism and can play an important role in the sediment cycle in a watershed. Due to low recruitment potential in Lynden, large woody debris placement is important to restoring Fishtrap Creek function. In order to provide future large woody debris for the creek, revegetation efforts should also be given a priority. The efforts should also focus on providing shade for the creek and removing unwanted vegetation.

Development along Fishtrap Creek upstream of the City of Lynden continues and flooding along Fishtrap Creek is anticipated to be more common. This increased flow should be accounted for in future projects. This would also be true for future projects

Commented [DT47]: Added to clarify revegetation priority is native riparian species.

which add stormwater flows to the creek, stormwater detention and treatment should be designed to minimize the effect on Fishtrap Creek.

Public access to Fishtrap Creek is important to residents of Lynden. Restoration projects along Fishtrap Creek should implement a public access element as well.

9.04 EXISTING AND ONGOING RESTORATION PROJECTS

While a complete listing of all restoration projects completed in Lynden is not available, a listing of the known existing and current projects for both Fishtrap Creek and the Nooksack River was developed with the help of the technical advisory team and City Planning officials.

9.04.01 Fishtrap Creek Ongoing and Existing Projects

Existing restoration projects for the Fishtrap Creek in Lynden include ongoing invasive species control, revegetation and side-channel construction along Bender Fields, riparian area re-vegetation in Heritage Park (south of Badger Road) and riparian enhancement in the area north of Kok Road. Restoration efforts at the City Park have also been performed including large woody debris placement and channel modifications.

Commented [DT48]: Invasive plants are an ongoing issue for restoration work across the state.

Numerous small planting projects have been undertaken throughout the City along Fishtrap Creek and its tributaries. These projects include: planting projects along Bender Park Boulevard in Reach 4, along the City Trail system and in the City Park in Reach 3, in portions of Reach 2 from Main Street to 14th Street, in Reach 2 downstream of 17th Street, and in of Reach 1.

~~There are three ongoing Fishtrap Creek restoration projects in the City including:~~

Commented [DT49]: Completed

- ~~1. Large woody debris placement, revegetation, and riparian planting in the area south of Kok Road in Reach 1.~~
- ~~2. Vegetation planting in the area downstream of Depot Road in Reach 3.~~
- ~~3. Large woody debris placement, vegetation, and riparian planting near the confluence of Double Ditch and Fishtrap Creek in Reaches 1 and 2.~~

9.04.02 Planned Restoration Projects in Fishtrap Creek Watershed

~~Planned restoration projects include the replacement of the culvert on Fishtrap Creek at the Main Street crossing in 2012. This bridge has been noted as a potential fish passage barrier in the Whatcom County Public Works 2006 Fish Passage Survey due to outfall drop. The culvert replacement will improve fish passage. RiparianR restoration efforts are planned are also planned on the former Lynden Middle School property along with a trail extension and pedestrian bridge construction. This project will improve public access and viewing opportunities for Fishtrap Creek which is a critical element of the SMP process.~~

Commented [DT50]: Completed.

Students at Lynden Christian High School have been involved in a number of significant restoration projects along Fishtrap Creek. The students, directed by Biology Teacher Harlan Kredit, operate a small hatchery along the City Trail in Reach 3 of the Fishtrap Creek. The students have undertaken planting projects along Fishtrap Creek north of the city limits and in all reaches in the City. ~~Current projects which are being performed include planting on the bank near Fairside Drive (two year project) and planting along Fishtrap Creek near the Ford Dealership south of Kok Road.~~

Commented [DT51]: Completed.

The reroute of Pepin Creek is also in the planning stage. The scope of the project is not known at this time and the likelihood of the project being implemented depends on a variety of factors including the high project cost and acquiring the needed property to construct the new channel but the benefits to Fishtrap Creek, the landowners along Double Ditch and Benson Road, and the Nooksack River would be significant.

9.04.03 Nooksack River

Restoration efforts along the Nooksack River have been coordinated by regional groups. As part of WRIA 1, a salmonid habitat restoration strategy has been prepared that identifies specific projects related to restoring habitats and shoreline function along the Nooksack River and throughout WRIA 1. Another WRIA 1 project is the development of the WRIA 1 Watershed Management Plan which addressed issues related to water quality, flows, and habitat within WRIA 1. Whatcom County, during their SMP update, cited the Watershed Management Plan as an important element in meeting the no-net-loss goals of the County SMP. The Conservation Reserve Enhancement Program (CREP) is another project being undertaken in Whatcom County and in the Nooksack River watershed to improve stream buffers on agricultural lands.

9.05 PROJECTS AND STRATEGIES TO MEET RESTORATION GOALS

The restoration plan for Lynden includes the following elements:

1. Individual actions by landowners to improve riparian function (~~invasive species removal~~, revegetation, soft armoring methods, etc.)
2. Restoration of riparian function, wetland function, and preservation of riparian areas in the undeveloped shoreline areas along Fishtrap Creek and the Nooksack River.
3. Community-wide revegetation efforts lead by Lynden Christian students and Nooksack Salmon Enhancement Association.
4. Mitigation of stream bank erosion along North Bridgeview Drive.
5. Implementation of restoration projects in other opportunity areas as identified in Section 9.02.03. Completion of these projects is contingent on finding funding sources.

Commented [DT52]: This is something that most landowners are able to undertake.

9.06 PARTNERSHIPS, TIMELINES, AND BENCHMARKS FOR IMPLEMENTING RESTORATION PROJECTS AND ACHIEVING RESTORATION GOALS

The best way for Lynden to meet its restoration goals is to work with partners and coordinate with agencies and other groups who have expertise in restoration along Fishtrap Creek and the Nooksack River. One group important to Whatcom County is the Nooksack Salmon Enhancement Association (NSEA). Lynden has and should continue to partner with NSEA to search out funding and plan restoration projects. Public agencies which are important include the Washington Department of Fish and Wildlife and the Department of Ecology.

In addition, Lynden should work with neighboring jurisdictions including Lummi Nation, the Nooksack Tribe, and Whatcom County in planning restoration projects. Lynden should continue to be a part of the WRIA 1 process as well.

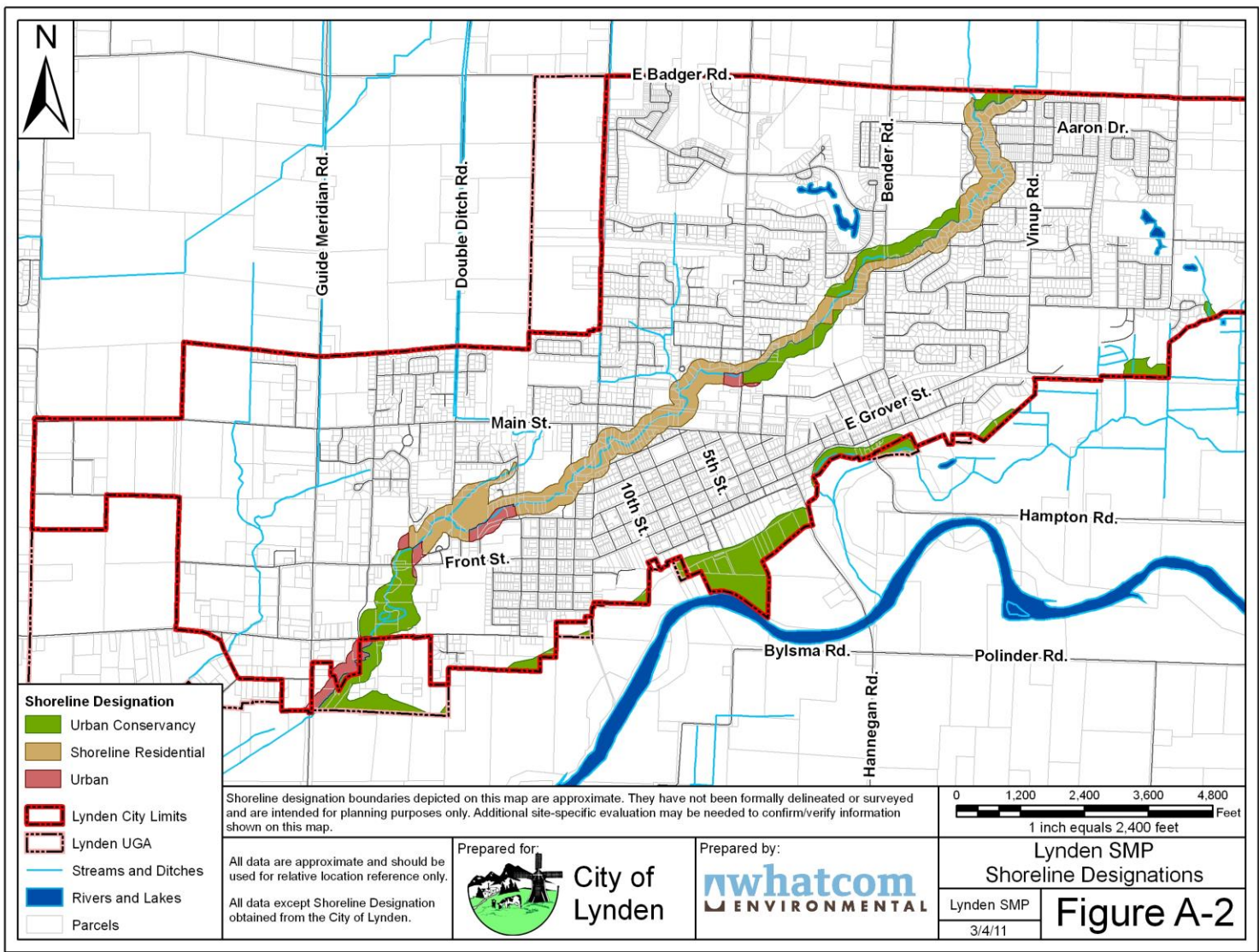
The timelines and benchmarks for implementing individual projects depend on the feasibility and cost of the projects. In general, those projects which provide high restoration potential should be given priority. In particular, vegetation surveys and revegetation projects should be emphasized.

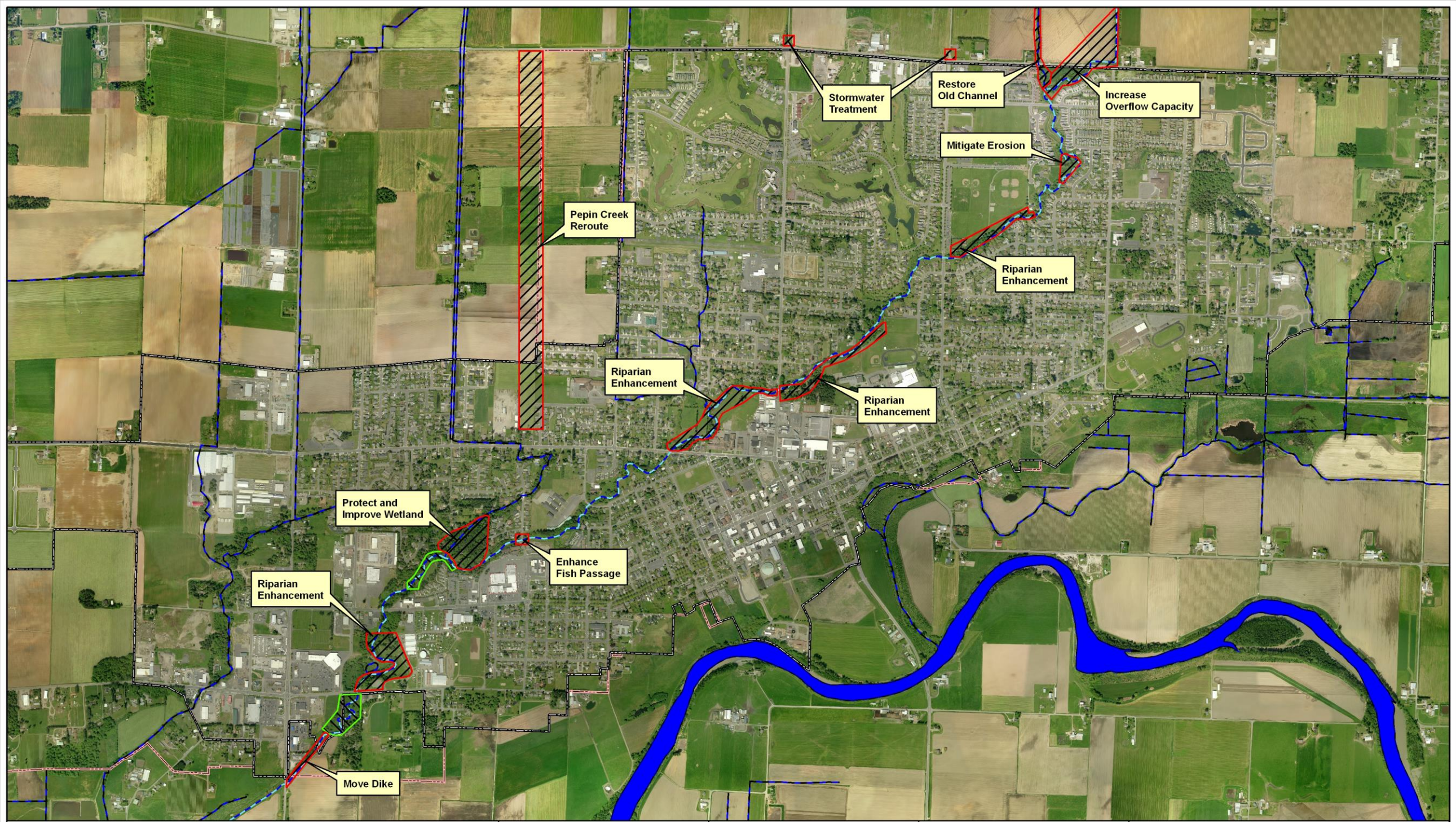
Major restoration efforts (including rerouting Pepin Creek and other opportunities) will depend on the funding available. Funding sources should be identified before projects are planned. NSEA in particular can be both a source of funding and may provide assistance in obtaining grants to perform restoration.

The City should periodically evaluate the restoration efforts with the stated goals, objectives, and priorities of the restoration plan and the SMP in general. Of primary importance is evaluating if the no-net-loss standard is being achieved.

Appendix A MAP FOLIO

DRAFT





Existing Project	City Limits	Nooksack River
Restoration Opportunity	Lynden City Limits	Ditches and Streams
	Lynden UGA	Fishtrap Creek

Prepared for:

City of Lynden

Prepared by:

nwhatcom
ENVIRONMENTAL

All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph

0 500 1,000 2,000
Feet

1 inch equals 1,500 feet

Restoration Opportunity

Lynden SMP	Figure A-3
4/21/11	

Appendix B CUMULATIVE IMPACTS

B.01 Introduction

The Shoreline Management Act guidelines require local shoreline master programs to regulate new development to maintain no net loss of shoreline ecological functions. While some impacts are immediate and can be directly addressed through avoidance and mitigation, other impacts are cumulative in nature. Individually, the action may not result in a significant impact, but the composite of many similar actions over time may lead to a significant cumulative impact to the ecosystem. For example, the creation of a small area of impervious surface may have only a negligible impact on the environment. The creation of numerous impervious surfaces that in total result in a significant change in the amount of such surface throughout a watershed over time could lead to significant impacts, such as: water quality degradation, increased peak storm flows, channel erosion, decreased vegetation and habitat areas, increased local temperatures, and other potential impacts.

The guidelines state that, "To ensure no net loss of ecological functions and protection of other shoreline functions and/or uses, master programs shall contain policies, programs, and regulations that address adverse cumulative impacts and fairly allocate the burden of addressing cumulative impacts.

Evaluation of such cumulative impacts should consider:

- (i) current circumstances affecting the shorelines and relevant natural processes;
- (ii) reasonably foreseeable future development and use of the shoreline; and
- (iii) beneficial effects of any established regulatory programs under other local, state, and federal laws."

In addition to the Shoreline Master Program under Shoreline Management Act (SMA), developments in the City of Lynden are also regulated under the City's Comprehensive Plan and the City's Critical Areas Regulations, both required under the Growth Management Act (GMA).

Other state and federal regulations also apply to the City's shoreline jurisdiction when local developments will affect critical areas or large areas adjacent to shorelines. Some of these state and federal regulations include, but are not limited to: the Endangered Species Act (ESA) to protect and recover federally listed species; the Clean Water Act (CWA) to protect water quality and regulate excavation and dredging; Hydraulic Project Approval (HPA) regulates projects that change waters of the state and affect fish habitat; and the National Pollution Discharge and Elimination System (NPDES) which regulates discharges into surface waters.

B.02 Reasonably Foreseeable Future Development

This analysis is looking at foreseeable impacts over time. These impacts are being looked at reach by reach, as done in the Shoreline Characterization. Site specific impacts are also expected to be addressed on a case-by-case basis during individual project reviews. The reaches used in this analysis are pre-determined areas based on water body and land uses that have previously been analyzed for alterations to key processes.

Cumulative impacts to the shoreline environment may result from a wide range of possible actions. Consistent with the guidelines, an appropriate evaluation of cumulative impacts on ecological functions will consider reasonably foreseeable future development and use of the shoreline that is regulated by the Shoreline Master Program, as well as actions that are caused by unregulated activities and development exempt from permitting. The guidelines, "recognize that methods of determining reasonably foreseeable future development may vary according to local circumstances, including demographic and economic characteristics and the nature and extent of local shorelines." The focus of foreseeable development is on those actions that have been identified as potential impacts to the shoreline environment and that are or would be foreseeable based on past development patterns, dependent on shoreline regulations.

The Lynden shoreline is unlikely to experience much more development, as much of the property is currently built out. The few vacant parcels that do remain are limited by environmental features such as wetlands, floodways or habitat. The most likely development or re-development in the Lynden shoreline jurisdiction will be infill on the few remaining buildable lots in the shoreline jurisdiction. Infill is unlikely to cause a need for additional utilities and streets in the shoreline. Therefore, a different pattern of development is unlikely to be created that will result in additional cumulative impacts.

B.03 Reaches of the Shoreline Inventory

The City of Lynden is located just upstream of the confluence of the Fishtrap Creek and the Nooksack River. The majority of the land within the shoreline jurisdiction around Fishtrap Creek is zoned residential although Reach 1 is dominated by commercial development and zoning. Several public properties also abuts the jurisdiction including schools and the Northwest Washington Fairgrounds. The Nooksack River and Fishtrap Creek are both designated as "shorelines of the state" and the Nooksack River is designated as a "shoreline of statewide significance."

The Shoreline Characterization provides a comprehensive description of shoreline conditions by reach. The shoreline is divided into five reaches, 1 through 4 along Fishtrap Creek and the short Nooksack River reach. The reaches were determined primarily by water body and current land use. Reaches are described below by location, land use, shoreline environment, at risk areas, and potential for future development. More detailed analysis of the reaches is located in the Detailed Reach Analysis Tables at the end of this section.

Reach 1 extends from the southern Lynden UGA boundary to the confluence of Double Ditch with Fishtrap Creek. Although the reach runs through or near major commercial

properties, the jurisdiction is almost wholly contained within the creek bed. The creek bed is dominated by category I and II wetlands in this reach. Environmental designations in the reach include Urban, Shoreline Residential and Conservancy. At risk areas include shoreline vegetation and habitat protection as this reach is, in general, functioning well.

Reach 1 is unlikely to experience much development within the jurisdiction. Much of the reach is zoned commercial but since most of the jurisdiction is wetland, infill will probably be developed adjacent to the shoreline jurisdiction. In the southern part of the reach, just outside the city limits but within the UGA, there are several large parcels that are currently in agricultural use. This reach has also experienced restoration efforts including placement of LWD. Much of this reach should be targeted for preserving it in its current state.

Reach 2 extends from the confluence of Fishtrap and Double Ditch to the confluence of Fishtrap and Benson Road Ditch. The predominant land uses along Reach 2 include single family residential, multi-family residential, and public schools. The stream channel in the lower portion of Reach 2 is broad and surrounded by steep high banks. The stream channel in the upper portion of Reach 2 is surrounded by more gently sloping uplands. In general, the meander belt of the stream in Reach 2 is broad at the southern end, narrows in the middle of the reach, and broadens again in the upper part of the reach.

Any development in this reach is likely to be residential infill. The creek bed narrows where it crosses N 17th Street and combined with the lack of wetlands in this area, additional multi-family development is likely. Except for the north end of this reach, most of the rest of the reach contains wetlands. The north end of the reach includes several large parcels that are currently used as pasture land and unencumbered by wetlands. Those parcels could be subdivided into a small single family development.

Reach 3 extends from the confluence of Fishtrap and Benson Road Ditch to the Bender Road Bridge. Land use along Reach 3 consists of single family residences, a park area, schools (Lynden Middle School and Lynden Christian School) and a small area of industrial land use near Depot Road. Other than the schools, where the playground and ball fields are in the jurisdiction, there is little vacant land in Reach 3. The shorelands along Reach 3 are nearly completely built-out. Because of that, Reach 3 is not likely to see any additional development.

Reach 4 extends from the Bender Road Bridge to the Badger Road Bridge at the north city limits. In general, Reach 4 is residential. Land use in this reach is either residential or parkland. Only minimal development is likely as there are only a few infill lots available in the shoreline jurisdiction. The surrounding areas are also built out.

Nooksack River Reach includes a small number of properties in southern Lynden that are located in the shoreline jurisdiction because they are in the floodway or within 200 feet of the floodway even though Whatcom County land lies between the subject properties and the Nooksack River. Land uses in this area is mostly residential with some commercial and agriculture. The reach also includes the Lynden sewage treatment plant.

Some development in this reach is likely but may be limited by proximity to the floodway and/or the floodplain.

B.04 Detailed Reach Analysis Tables

The following tables discuss existing conditions, foreseeable development, functions at risk, parts of the SMP that affect development, non-regulatory measures and the net effects of development in smaller sections of the reaches.

DRAFT

REACH 1					
Existing Conditions	Foreseeable Development	Function or Processes At Risk	SMP Environmental Designations, Policies & Regulations	Non-Regulatory Measures	Net Effect
<p>The area east of the channelized Fishtrap Creek at the city's southern boundary includes the northern tip of a 40 acre agricultural parcel. Just north of the agricultural land is a small residential development. North of there, the creek meanders through wetlands to Kok Road. The west bank is entirely commercial with two vacant parcels of approximately 6.5 acres, adjacent to the creek, just south of Kok Road.</p>	<p>The agricultural area is outside the city boundary, in the UGA and it is not likely to be developed in the foreseeable future, while the rest of the residential area is built out and the part of the creek north of the residential area is encumbered with wetlands and is unlikely to be developed.</p> <p>Approximately half of the vacant commercial parcel may be buildable and is likely to be developed.</p>	<p>If the commercial property is developed, habitat, water quality and water quantity could all be impacted since the only way to develop this area would be to fill the wetlands causing flooding and loss of water storage, loss of habitat from clearing and increased run off from more impervious surface adjacent to the jurisdiction.</p>	<p>Urban Environment Designation: Designation Criteria - The purpose of the "urban" environment is to provide for high-intensity and water-oriented commercial, industrial and transportation uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.</p> <p>Management Policies - 4.02.02.1. Uses should be water-oriented 4.02.02.4. Full utilization of existing urban areas should be achieved before further expansion of intensive development is allowed. 4.02.02.5. New development shall result in no net loss of shoreline ecological functions.</p> <p>General Policies & Regulations 5.06.03.2 All shoreline uses and activities shall be located, designed, constructed and managed to result in no net loss of ecological functions and to facilitate the appropriate human intensity of use of such features.</p> <p>Wetlands 5.08.02.3 All wetlands should be protected from alterations which adversely impact them so that there is no net loss of wetland acreage and functions. 5.08.02.5 No wetland alteration should be authorized unless it can be shown that the impact can be mitigated. 5.08.03.5 Mitigation Sequencing. Before impacting any wetland or its buffer, an applicant shall demonstrate that "mitigation sequencing steps" have been taken (5.07.03.5 a-f). 5.08.03.6 Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions.</p> <p>Commercial Development 6.04.03.3 Commercial development is PROHIBITED in wetlands.</p> <p>Shoreline Modification Policies & Regulations, Fill 7.04.02.1 Fill waterward of OHWM should be prohibited and only allowed when necessary to support the design and construction of a shoreline restoration or environmental enhancement project or to facilitate water-dependent and/or public access uses which are consistent with this master program</p>		<p>The proposed regulatory measures in combination with the environment designation will ensure "no net loss" of shoreline function from future development impacts.</p>

REACH 1					
Existing Conditions	Foreseeable Development	Function or Processes At Risk	SMP Environmental Designations, Policies & Regulations	Non-Regulatory Measures	Net Effect
<p>The area between Kok Road and Front Street is bounded by the Whatcom County Fairgrounds on the east and commercial properties on the west. Two parcels near Kok Road and totaling 5 acres, are owned by the city. Most of this part of the reach is dominated by wetlands.</p>	<p>With most of this part of the reach listed as wetlands, additional development is unlikely. The fairgrounds and city property is designated Urban Conservancy, the rest is designated Urban. There is little potential for infill as most of the properties outside of wetlands are built out.</p>	<p>Water quantity would be impacted if this area is intensely developed due to loss of wetlands. Habitats would also be impacted due to loss of vegetative cover.</p>	<p>Urban Environment Designation (<i>see above</i>)</p> <p>Conservancy Environment Designation Designation Criteria - Areas to be designated Urban Conservancy should meet one or more of the following criteria:</p> <ol style="list-style-type: none"> 1. Areas suitable for water-related or water-enjoyment uses; 2. Open space, flood plain or other sensitive areas that should not be more intensively developed; 3. The potential for ecological restoration; 4. The area retains important ecological functions, even though partially developed; or 5. They have the potential for development that is compatible with ecological restoration. <p>Management Policies - 4.04.02.1 Uses that preserve the natural character of the area or promote preservation of open space, flood plain or sensitive lands either directly or over the long term should be the primary allowed uses. Uses that result in restoration of ecological functions should be allowed if the use is otherwise compatible with the purpose of the environment and the setting.</p> <p>4.04.02.6 Commercial and industrial uses should be prohibited.</p> <p>General Policies & Regulations, Wetlands - 5.08.03 (<i>see above</i>)</p> <p>Commercial Development 6.04.03.3 Commercial development is PROHIBITED in wetlands.</p>	<p>Encourage public access or other low intensity activities such as trails, especially on the fairgrounds.</p>	<p>The proposed regulatory measures in combination with the environment designation will ensure “no net loss” of shoreline function from future development impacts.</p>
<p>The area from Front street to the confluence with Double Ditch Creek. The commercial development along Front street is “built out” as is the property adjacent to the jurisdiction on the southwest part of this area. The rest of this area is residential with no more apparent buildable lots.</p>	<p>Development is unlikely in the area as it appears built out.</p>	<p>As with most of Reach 1, this area is also dominated by wetlands. Water quantity would be impacted if this area is intensely developed due to loss of wetlands. Habitats would also be impacted due to loss of vegetative cover.</p>	<p>Urban Environment Designation (<i>see above</i>)</p> <p>Shoreline Residential Environment Designation Designation Criteria – 4.03.01 Areas to be designated Shoreline Residential Environment are predominantly single-family or multifamily residential development or are planned and platted for residential development.</p> <p>Shoreline Use Policies & Regulations, Commercial Development 6.04.02.2 No commercial development should be allowed in wetlands.</p> <p>6.09.03.1 Residential development shall be prohibited within floodways, wetlands and within other hazardous areas such as steep slopes and areas with unstable soils or geologic conditions.</p>		<p>The proposed regulatory measures in combination with the environment designation will ensure “no net loss” of shoreline function from future development impacts.</p>

REACH 2					
Existing Conditions	Foreseeable Development	Function or Processes At Risk	SMP Environmental Designations, Policies & Regulations	Non-Regulatory Measures	Net Effect
<p>Reach 2 of Fishtrap Creek extends from the confluence of Fishtrap Creek and Double Ditch to the confluence of Fishtrap Creek and Benson Road Ditch. The dominant land uses along Reach 2 includes single family residential, multi-family residential, and schools. Reach 2 is almost fully developed consisting primarily of residential. There is a small commercial development, a park, two schools, a church and a large vacant parcel at the confluence with Double Ditch Creek. That vacant parcel is almost entirely wetland. Also approximately 5.6 acres of vacant pasture land is located just below the confluence with Benson Road Ditch. These properties are zoned for 5 units/acre and in a single ownership. Many of the residential properties include banks with less canopy due to the presence of lawns and other areas maintained by property owners. These areas also frequently use rockery type bulkheads or other armoring methods for bank stabilization.</p>	<p>This reach should see only limited infill in the foreseeable future although the vacant pasture land has the potential for additional residential development. The rest of the reach is fully platted and only a few lots remain for infill.</p>	<p>All shore ecological functions are degraded to some extent throughout this part of the reach due to extensive development, clearing of vegetation and shoreline armoring.</p> <ul style="list-style-type: none"> - Removal of shoreline vegetation has reduced the shading of the creek and the LWD recruitment potential. - Lawns and other owner maintained areas near the creek may be contributing excess nitrogen and phosphorus to the creek. - Stormwater flows to the creek may increase the peak flows and lead to undesired stream bank erosion. - Construction of armored bulkheads along the creek reduces riparian function, sediment movement, and channel migration. 	<p>Shoreline Residential Environment</p> <p>General Regulations 5.02.1 New development shall result in no net loss of shoreline ecological functions.</p> <p>Residential development</p> <p>Regulation 6.09.03.1 Residential development shall be prohibited within floodways, wetlands and within other hazardous areas such as steep slopes and areas with unstable soils or geologic conditions.</p> <p>Regulation 6.09.03.2 New residential structures and accessory structures are prohibited over water.</p> <p>6.09.05.1 New subdivided lots are required to be designed, configured and developed to:</p> <ol style="list-style-type: none"> a. Prevent the loss of ecological functions at full build-out; b. Prevent the need for new shoreline stabilization or flood hazard reduction measures; and c. Be consistent with applicable SMP environment designations and standards. 		<p>The proposed regulatory measures will ensure “no net loss” of shoreline function from future development impacts.</p>

REACH 3					
Existing Conditions	Foreseeable Development	Function or Processes At Risk	SMP Environmental Designations, Policies & Regulations	Non-Regulatory Measures	Net Effect
<p>Reach 3 of Fishtrap Creek extends from the confluence of Fishtrap and Benson Road Ditch to the Bender Road Bridge. Reach 3 is fully built out with two schools, a city park and a 7 acre green belt comprising large open spaces in the reach. There is public access to Fishtrap Creek in the Lynden City Park. In addition, a trail system follows Fishtrap Creek beginning in the City Park and extending upstream along the Fishtrap Creek past the Bender Fields Park. The trail is set outside a narrow vegetated area adjacent to the Creek but does allow access to Fishtrap Creek at various locations. Development within 200 feet of Fishtrap is common in Reach 3. The presence of houses, driveways, and roads affects the hydrologic and sediment processes along Fishtrap Creek. Hard armoring of stream banks is common along Reach 3. In addition, property owners maintain lawns and other landscaping to the stream edge. Portions of Reach 3 have little riparian vegetation and the vegetation that is present is immediately adjacent to the creek.</p>	<p>Development in this reach is unlikely.</p>	<p>The ecological function in Reach 3 is affected by the development along Fishtrap Creek. Homes or other structures are located in the shoreline jurisdiction throughout Reach 3. Additional development would affect the following functions:</p> <ul style="list-style-type: none"> - Removal of shoreline vegetation would reduce the shading of the creek and the LWD recruitment potential. - Lawns and other owner maintained areas near the creek may contribute excess nitrogen and phosphorus to the creek. - Stormwater flows to the creek may increase the peak flows and lead to undesired stream bank erosion. - Construction of armored bulkheads along the creek would reduce riparian function, sediment movement, and channel migration. 	<p>Shoreline Residential Environment</p> <p>General Regulations 5.02.1 New development shall result in no net loss of shoreline ecological functions.</p> <p>Residential development</p> <p>Regulation 6.09.03.1 Residential development shall be prohibited within floodways, wetlands and within other hazardous areas such as steep slopes and areas with unstable soils or geologic conditions.</p> <p>Regulation 6.09.03.2 New residential structures and accessory structures are prohibited over water.</p>	<p>Development is limited due to lack of buildable lots.</p>	<p>The proposed regulatory measures and the environment designation will ensure "no net loss" of shoreline function from future development impacts.</p>

REACH 4					
Existing Conditions	Foreseeable Development	Function or Processes At Risk	SMP Environmental Designations, Policies & Regulations	Non-Regulatory Measures	Net Effect
<p>Reach 4 of Fishtrap Creek extends from the Bender Road Bridge to the Badger Road Bridge at the north city limits. There are 5 city owned park properties along this reach while the rest of the reach is almost fully built out residential including only a few buildable lots for infill. Houses, driveways, and roads affect the hydrologic and sediment processes along Fishtrap Creek. Hard armoring of stream banks is also common along the downstream segments of Reach 4. Newer development in the northern segment of the reach is set back from the creek to a greater extent than the older development. In the older developed areas, properties are more likely to have lawns and other landscaping to the stream edge which may be sources of nitrogen and phosphorus. Portions of Reach 4 have little riparian vegetation. There is little LWD present in the northern segment of the reach though restoration efforts have been undertaken. Stormwater detention facilities are common in the area draining to Reach 4 but toxins remaining in the treated stormwater may still be impacting the reach.</p>	<p>Foreseeable development will be limited to infill on a few vacant lots.</p>	<p>Newer developments along Reach 4 have been set back from the creek and restoration efforts have been undertaken in the upstream segment. Some of the results of the development along Reach 4 include:</p> <ul style="list-style-type: none"> - Restoration efforts have been undertaken to replace mature riparian vegetation along the creek. Shading conditions have improved due to those efforts. - Filtering of nitrogen and phosphorus due to lawns and other owner maintained areas near the creek. - Stream bank erosion may be increased due to unmitigated stormwater flows to the creek during peak flows. - Bulkheads along the creek could reduce riparian function, sediment movement, and channel migration. 	<p>Shoreline Residential Environment</p> <p>General Regulations 5.02.1 New development shall result in no net loss of shoreline ecological functions.</p> <p>Residential development</p> <p>Regulation 6.09.03.1 Residential development shall be prohibited within floodways, wetlands and within other hazardous areas such as steep slopes and areas with unstable soils or geologic conditions.</p> <p>Regulation 6.09.03.2 New residential structures and accessory structures are prohibited over water.</p> <p>Recreational Development Regulations</p> <p>Regulation 6.08.03.1 All recreational development in the shoreline jurisdiction shall result in no net loss of ecological processes and functions.</p> <p>Regulation 6.08.03.2 Valuable shoreline resources and fragile or unique areas such as wetlands shall be used only for non-intensive and nonstructural recreation activities.</p> <p>Regulation 6.08.03.3 All permanent substantial recreational structures and facilities shall be located outside officially mapped floodways provided the City may grant administrative exceptions for non-intensive minor accessory uses (e.g., picnic tables, tennis courts, etc.).</p> <p>Regulation 6.08.03.4 Substantial accessory use facilities, such as rest rooms, recreation halls and gymnasiums, commercial services, access roads and parking areas shall be setback 100 feet from the OHWM.</p> <p>Regulation 6.08.03.5 For recreation developments that require the use of fertilizers, pesticides, or other toxic chemicals are prohibited in the shoreline jurisdiction</p>	<p>Preservation and enhancement efforts could include:</p> <ul style="list-style-type: none"> - Areas along the city trail could be enhanced with more vegetation and additional public access sites. - Vacant land east of Bender Park Boulevard could be acquired to provide additional area for wetland/riparian enhancement. 	<p>The proposed regulatory measures in combination with the non-regulatory measures will ensure "no net loss" of shoreline function from future development impacts.</p>

Nooksack River Reach					
Existing Conditions	Foreseeable Development	Function or Processes At Risk	SMP Environmental Designations, Policies & Regulations	Non-Regulatory Measures	Net Effect
<p>Only 0.04 miles of the Nooksack River fall in the City of Lynden Shoreline Jurisdiction. The City of Lynden shoreline Jurisdiction is located within Reach 12 of the Whatcom County shoreline jurisdiction. A few properties in southern Lynden are located in the Nooksack River reach, primarily because they are located in the floodway or in the floodplain within 200 feet of the floodway. Whatcom County land, outside of the Lynden UGA, lies between the Lynden shoreline jurisdiction and the Nooksack River. The City of Lynden sewage treatment plant is the only property in the city with direct access to the Nooksack River. This portion of the Nooksack River is heavily diked and armored. Other properties in the Lynden Shoreline Jurisdiction are zoned residential and commercial. There is a significant amount of undeveloped land located in the southern portion of the City's commercial zone.</p>	<p>Development of properties at the western edge of the reach is unlikely due to their inclusion in the Nooksack River floodway and/or floodplain. Except for a condominium, the Lynden Waste Treatment Plant and a County Housing Authority development, the rest of the central portion of the reach is either vacant or pasture land. These low lying areas are unlikely to be further developed since they all lie within the floodway. The Front Street part of this reach is unlikely to be developed because it is all wetlands in the floodway. The very eastern portion of the reach is associated wetlands and unlikely to be developed.</p>	<p>The loss of wetlands in the Nooksack floodplain would negatively affect the hydrologic cycle, the movement of sediment, the movement and destruction of nitrogen and phosphorus, and the movement of toxins.</p>	<p>Urban Conservancy designation. 4.04 The intent of the Urban Conservancy environment is to protect and restore ecological functions of open space, flood plain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses. Residential development Regulation 6.09.03.1 Residential development shall be prohibited within floodways, wetlands and within other hazardous areas such as steep slopes and areas with unstable soils or geologic conditions. Regulation 6.09.03.2 New residential structures and accessory structures are prohibited over water.</p>		<p>The proposed regulatory measures and the environment designations will ensure "no net loss" of shoreline function from future development impacts.</p>

B.05 Ecological Functions at Risk from Future Developments

Habitat

Two threatened or endangered species of fish are present in Fishtrap Creek, Puget Sound Chinook salmon and steelhead. Coho salmon, listed as a federal candidate species, is also present. Juvenile Chinook rear in the area. Other fish found in the Creek are chum and cutthroat trout.

Wetlands

Wetland areas have been identified throughout Fishtrap Creek and in the Nooksack River Floodway and floodplain. Most of these wetlands directly connected to the Creek are important for flood storage and distribution of nutrients.

Floodplains

Fishtrap Creek is largely incised through the City of Lynden and has limited migration potential with the exception of a few flat broad areas. The Nooksack River was known to migrate throughout the floodplain before the lower portion of the river was extensively diked. Due to the construction of the dikes, the river is largely confined to the current channel. Floodplain management is important for maintaining habitats and wetlands. Ecological functions need to be considered in flood control projects and in pursuing non-structural alternatives. Developing floodplain management policies which help minimize more vulnerable development and encourage more compatible uses will also help maintain habitats and wetlands.

B.06 Anticipated Beneficial Effects

As part of the SMP process, restoration opportunities have been identified for each Reach. The restoration projects help to offset some of the cumulative effects of development along the Shoreline as identified in Section B.04. Some projects which are being implemented in Lynden include:

1. Large woody debris placement, revegetation, and riparian planting in the area south of Kok Road in Reach 1.
2. Large woody debris placement, vegetation, and riparian planting near the confluence of Double Ditch and Fishtrap Creek in Reaches 1 and 2.
3. Restoration of riparian function, wetland function, and preservation of riparian areas in the undeveloped shoreline areas along Fishtrap Creek and the Nooksack River.
4. Community-wide revegetation efforts lead by Lynden Christian students and Nooksack Salmon Enhancement Association.
5. Implementation of restoration projects in other opportunity areas as identified in Chapter 9 Restoration Plan. Completion of these projects is contingent on finding funding sources.

B.07 No Net Loss Summary

How the City of Lynden achieves “no net loss” in its Shoreline Master Program is demonstrated in the Detailed Reach Analysis Tables in Section B.04 above. The tables bring together information gathered for the inventory and characterization, shoreline use analysis, environmental designations and the policies and regulations of the updated SMP. The “net effect” column shows the conclusions that were drawn based on the information. Restoration opportunities and current restoration projects are detailed in the Chapter 9 Restoration Plan.

Because the vast majority of the Lynden shoreline jurisdiction is already built out, including roads and utilities, limited infill opportunities should not result in a net loss of ecological functions. A different pattern of development is unlikely to be created that will result in additional cumulative impacts.

Appendix C FEDERAL & STATE AGENCY CONTACTS

C.01 FEDERAL

Federal Emergency Management Agency (FEMA)

Mitigation Division..... 425-487-4679

U.S. Army Corps of Engineers 206-764-3742

C.02 STATE

Washington Department of Archaeology and Historic Preservation

<http://www.dahp.wa.gov/>

Main Office..... 360-586-3065

Washington State Department of Commerce

<http://www.cted.wa.gov>

Growth Management 360-725-3000

Washington State Department of Ecology

<http://www.ecy.wa.gov>

Headquarters Office 360-407-6000

Northwest Region..... 425-649-7000

Shorelands & Environmental Assistance 425-649-7096

Shoreline Planning, Permitting and Compliance, Patricia Lambert..... 425-649-7199

Washington State Department of Fish and Wildlife

<http://wdfw.wa.gov/>

Main Office..... 360-902-2200

North Puget Sound (Region 4)..... 425-775-1311

Washington State Department of Natural Resources (DNR)

<http://dnr.wa.gov/>

General Information 360-902-1000

South Puget Sound Region.....360 825-1631

Aquatic Resources Division 360-902-1100

Shoreline Aquatic District 360-825-1631

Forest Practices Division 360-902-1400