

TITLE 22

BELLINGHAM MUNICIPAL CODE SHORELINE MASTER PROGRAM

Table of Contents

TABLE OF CONTENTS	i
PREFACE	v
HOW TO USE THIS DOCUMENT	ix
INTRODUCTION	xiii
22.01 AUTHORITY AND PURPOSE	1
22.01.10 AUTHORITY	1
22.01.20 TITLE	1
22.01.30 PURPOSES.....	1
22.01.40 GOVERNING PRINCIPLES (WAC 173-26-186).....	1
22.01.50 FINDINGS.....	5
22.01.60 ENACTMENT.....	5
22.01.70 LIBERAL CONSTRUCTION.....	5
22.02 SHORELINE GOALS AND POLICIES	6
22.02.10 GENERAL GOALS AND Policies	6
22.02.20 SHORELINE GOALS	6
22.03 JURISDICTION, MAPS AND ENVIRONMENT DESIGNATIONS	19
22.03.10 SHORELINE JURISDICTION	19
22.03.20 SHORELINE MAPS	20
22.03.30 SHORELINE ENVIRONMENT DESIGNATIONS.....	21
22.04 SHORELINES OF STATEWIDE SIGNIFICANCE	44
22.04.10 ADOPTION OF POLICY	44
22.04.20 DESIGNATION	44
22.04.30 GENERAL POLICIES	44
22.05 APPLICABILITY, EXEMPTIONS, RELATIONSHIP TO OTHER REGULATIONS AND NONCONFORMITY	47
22.05.10 APPLICABILITY.....	47
22.05.20 EXEMPTIONS	47
22.05.30 RELATIONSHIP TO OTHER REGULATIONS	53
22.05.40 NONCONFORMITY	55
22.06 SHORELINE PERMITS	57
22.06.10 PERMIT PROCESS	57
22.06.20 SUBMITTAL REQUIREMENTS.....	57
22.06.30 SHORELINE SUBSTANTIAL DEVELOPMENTS	57
22.06.40 VARIANCES.....	58
22.06.50 CONDITIONAL USES	60
22.06.60 FEES	61
22.06.70 APPEALS	61
22.06.80 STATE ENVIRONMENTAL POLICY ACT (SEPA) COMPLIANCE.....	61
22.06.90 EXPIRATIONS AND EXTENSIONS	62
22.06.100 PERMIT REVISIONS	63
22.07 ADMINISTRATION AND LEGAL PROVISIONS	65
22.07.10 ADMINISTRATION.....	65
22.07.20 AMENDMENTS	65

22.07.30	PENALTIES AND VIOLATIONS	65
22.07.40	REMEDIES	66
22.07.50	SEVERABILITY	67
22.07.60	REVISED PROGRAM.....	67
22.07.70	REFERENCES TO PLANS, REGULATIONS OR INFORMATION SOURCES	67
22.08	GENERAL POLICIES AND REGULATIONS.....	68
22.08.10	SHORELINE BUFFERS	68
22.08.20	MITIGATION SEQUENCING	71
22.08.30	CRITICAL AREAS.....	72
22.08.40	CRITICAL SALTWATER HABITATS (Fish and Wildlife Habitat Conservation Areas).....	75
22.08.50	CRITICAL FRESHWATER HABITATS (Fish and Wildlife Conservation Areas).....	76
22.08.60	CRITICAL AREA REGULATIONS FOR WETLANDS WITHIN THE SHORELINE ... JURISDICTION	76
22.08.70	FLOOD HAZARD REDUCTION	84
22.08.80	CRITICAL AREA REGULATIONS FOR GEOLOGIC HAZARD AREAS WITHIN THE SHORELINE JURISDICTION (this entire section; OLCR).....	87
22.08.90	PUBLIC ACCESS	90
22.08.100	SHORELINE NATIVE VEGETATION MANAGEMENT	93
22.08.110	WATER QUALITY, STORMWATER, AND NONPOINT POLLUTION	96
22.08.120	SHORELINE MODIFICATIONS / STABILIZATION.....	97
22.08.130	ARCHAEOLOGICAL AND HISTORIC RESOURCES.....	99
22.08.140	DREDGING AND DISPOSAL.....	100
22.08.150	IN-WATER STRUCTURES	101
22.08.160	CLEARING AND GRADING	103
22.08.170	LANDFILL.....	104
22.08.180	LIGHTING	104
22.08.190	PARKING.....	105
22.08.200	SIGNAGE.....	106
22.08.210	STORMWATER MANAGEMENT FACILITIES	107
22.09	USE POLICIES AND REGULATIONS.....	109
22.09.10	AQUACULTURE	109
22.09.20	BOATING FACILITIES	110
22.09.30	COMMERCIAL DEVELOPMENT	112
22.09.40	FOREST PRACTICES	114
22.09.50	INDUSTRIAL DEVELOPMENT	115
22.09.60	PIERS, FLOATS, PILINGS - LAKE WHATCOM AND LAKE PADDEN.....	117
22.09.70	PIERS, FLOATS, PILINGS WITHIN MARINE SHORELINES	117
22.09.80	RECREATIONAL DEVELOPMENT	119
22.09.90	RESIDENTIAL DEVELOPMENT	120
22.09.100	RESTORATION AND CONSERVATION	122
22.09.110	ROADS, RAILWAYS, AND UTILITIES	124
22.10	DEFINITIONS.....	128
22.11	SHORELINE DESIGNATION MAPS, SHORELINES OF STATEWIDE SIGNIFICANCE AND DEVELOPMENT REGULATION MATRICES.....	1
22.11.10	SHORELINE DESIGNATION MAPS	1
22.11.20	SHORELINES OF STATEWIDE SIGNIFICANCE MAP.....	1
22.11.30	DEVELOPMENT REGULATION MATRICES	1

LIST OF APPENDICES

APPENDIX A – Shoreline Characterization and Inventory..... A-1
APPENDIX B – Restoration Plan..... B-1
APPENDIX C – Shoreline Environment Designation CriteriaC-Error! Bookmark not defined.
APPENDIX D – CMZ Documentation..... D-1
APPENDIX E – Submittal RequirementsE-1

This page intentionally left blank

PREFACE

The City of Bellingham, through adoption of this Shoreline Master Program, intends to implement the Washington State Shoreline Management Act and its policies including protecting the State's shorelines and their associated natural resources, identifying areas for preferred uses, and providing opportunities for the general public to have access to and enjoy shorelines in general.

The Shoreline Management Act (SMA or the Act), Chapter RCW 90.58.020, states:

“The legislature finds that the shorelines of the state are among the most valuable and fragile of its 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 the uplands adjacent thereto are in private ownership; that unrestricted construction on the privately owned or publicly owned shorelines of the state is not in the best public interest and therefore, coordinated planning is necessary in order to protect the public interest associated with the shorelines of the state while, at the same time, recognizing and protecting private property rights consistent with the 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 insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.”

The Act places additional importance on those shorelines of the state that are within the interest of all the citizens of Washington State. These are called shorelines of statewide significance (SSWS). In Bellingham, these are the shorelines of Bellingham Bay and Lake Whatcom.¹ RCW 90.58.020 of the Shoreline Management Act goes on to state the following:

“The legislature declares that interest of all people shall be paramount in the management of shorelines of statewide significance. The department (of Ecology) in adopting guidelines for shorelines of statewide significance, and local government in developing master programs for shorelines of statewide significance shall give preference to uses in the following order of preference which:

¹ Please refer to BMC 22.04 for the precise definition of ‘Shorelines of Statewide Significance.’

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 the shoreline;
5. Increase public access to publicly owned areas of the shorelines;
6. Increase recreational opportunities for the public in the shoreline;
7. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

“In the implementation of this policy, 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 which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state’s shoreline. Alterations of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single-family residences and their appurtenant structures, ports, shoreline recreational uses including but not limited to industrial and commercial developments which are particularly dependent on their location on or use of the shorelines of the state and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state. Alterations of the natural condition of the shorelines and shorelands of the state shall be recognized by the department. Shorelines and shorelands of the state shall be appropriately classified and these classifications shall be revised when circumstances warrant regardless of whether the change in circumstances occurs through man-made causes or natural causes. Any areas resulting from alterations of the natural condition of the shorelines and shorelands of the state no longer meeting the definition of ‘shorelines of the state’ shall not be subject to the provisions of Chapter 90.58 RCW.

“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 use of the water.” (RCW 90.58.020)

In order to implement this policy, the City, through this Master Program, strives to achieve the following objectives which are also identified in WAC 173-26-251-3 (Shoreline Guidelines) and Bellingham Municipal Code (BMC) 22.04.30 *General Policies*:

- The City has consulted with state agencies (regulatory and non-regulatory) and affected Indian Tribes via the Technical Advisory Committee for recommendations on protection of SSWS and the resources they provide.
- Preserve the SSWS for future generations by preventing irreversible harm or damage to the resource and implement restoration goals for long-term recovery.
- Identify areas where certain uses should be located and developed given the presence and importance of ecological resources within and outside of the City’s jurisdiction. Water-

dependent uses, public access, recreational opportunities and essential public facilities are examples of uses that should be appropriately sited in order to protect a resource.

- Develop use regulations that are protective of the resource that a SSWS provides without conflicting with the overall objectives of the SMA.
- Develop consistency between the City's Comprehensive Plan and the policies for SSWS.

This page intentionally left blank

HOW TO USE THIS DOCUMENT

The following summary provides an overview of the Shoreline Master Program (SMP or Program) contents with a brief explanation of its general format and procedures. Readers should refer to the Introduction for additional information on the history and rationale behind shoreline management.

PROGRAM FORMAT

The City of Bellingham SMP includes goals, policies and regulations. The SMP is a comprehensive plan for how shorelines should be used and developed over time. Goals, policies and regulations provide direction for shoreline users and developers on issues such as use compatibility, setbacks, public access, building height, parking locations, mitigation, and the like.

The general purpose, goals and policies are found in BMC 22.01 and 22.02. Together they provide direction and context for the specific policies and regulations in the Program. Policies are broad statements of intention that are generally phrased using words such as “should.” For example, “In-water structures should be constructed with material and treatments that will not impair or degrade water quality.” In contrast, regulations are requirements that are necessary to implement the policies. For example, “Treated pilings are prohibited in Lake Whatcom and Lake Padden.”

BMC 22.03 describes the shoreline jurisdiction consistent with state regulations as well as the shoreline environment designations that are applied to each shoreline reach. The environment designation section includes information on interpretation, purpose, management policies and general regulations such as buffers. The shoreline designations function similar to zoning districts in that they determine which uses are allowed, which are conditional, and which are prohibited in shoreline areas.

Shorelines designated as “shorelines of statewide significance” (SSWS) by the Shoreline Management Act (RCW 90.58) are listed in BMC 22.04, along with policies for their use. Shorelines of statewide significance are major resources from which all people of the state derive benefit. These areas must be managed to ensure optimum implementation of the Act’s objectives.

BMC 22.05 explains the types of development the Program has jurisdiction over, which activities it recognizes as exempt or non-conforming, and its relationship to other ordinances and laws.

BMC 22.06 contains procedures and review criteria for substantial development permits, conditional use permits and shoreline variances. BMC 22.07 addresses the administration of the Program’s regulations and other legal provisions.

General policies and regulations, including uses allowed in required buffers, criteria for maximizing a buffer area as well as the comprehensive policies and regulations for specific shoreline uses such as commercial development, industrial development, recreation, and the like, are described in BMC 22.08 and 22.09. Some developments may be subject to more than one of the subsections.

BACKGROUND INFORMATION

The 2004 City of Bellingham Shoreline Characterization and Inventory (SCI) is included as APPENDIX A². The policies and regulations of this SMP are based on the results of the SCI. This shoreline inventory was compiled to meet the requirements in RCW 90.58.100(1) and WAC 173.26.201(2). The City assembled a Technical Advisory Committee consisting of the following state, local, tribal, and non-profit agencies to assist with the SCI, and provide professional guidance and recommendations:

Department of Ecology
Department of Natural Resources
Whatcom County
ReSources
Coastal Geological Services Inc.

WA State Fish and Wildlife
Port of Bellingham
Lummi Nation and Nooksack Tribe
Puget Sound Action Team

The City considered plans, studies, surveys, inventories, and systems of classification made or being made by federal, state, regional, or local agencies, by tribes and private individuals, and by other organizations dealing with pertinent shorelines of the state. The data sources are identified in the Literature Reviewed section of the SCI.

The SCI identifies data gaps that can be filled over time as resources become available. This will allow the City to build a more complete inventory so that when this SMP is updated or amended in seven years (as is required by state law) new data and information can be used to develop new goals, policies and regulations for shoreline protection.

The SCI includes a Geographic Information System (GIS) database. This GIS will link the inventory information to parcels and applicable goals, policies and regulations, and it will be easily updated as additional data become available. The SCI contains data on:

- Ecosystem-wide processes (landscape analysis): vegetative cover, impervious areas, soils, hydrology, and habitat connectivity. Areas are characterized as sustainable, not sustainable, or impaired.
- Water body/reach specific data: zoning, physical land use patterns, coverage within basin, critical areas, degraded areas, priority habitats, cleanup sites, public access sites, floodplains and channel migration zones, historic resources, sustainable conditions, fish use, restoration opportunities, and physical characteristics of shoreline. Shorelines are characterized as sustainable, not sustainable, or impaired.

² A CD copy of the SCI can be purchased from the Planning Department for \$2.

Also included as part of the City's SMP update is a Restoration Plan (APPENDIX B). Restoration planning is the mechanism to be used by the City to achieve a net gain in ecological functions throughout each watershed. Restoration planning is different than regulatory controls because the latter are developed to maintain 'no net loss' of ecological function within shorelines. Regulatory controls can include, but are not limited to, a sequence of mitigation measures and development of setbacks or buffer specifications. The Restoration Plan is a comprehensive set of restoration objectives and opportunities identified through already completed planning efforts or on a project-by-project basis. Examples include the City of Bellingham Park, Recreation and Open Space Plan (2005), the 1995 Whatcom Creek Trail Master Plan, the Greenways Levies and Programs, and work already identified and completed by the Washington Conservation Crew. While individual project proposals may not achieve full restoration of shoreline areas, restoration planning is intended to identify and prioritize restoration objectives and specify individual restoration projects that can be completed when resources become available.

The City of Bellingham is fortunate that substantial restoration planning efforts have been put forth over the last five to seven years. The Bellingham Bay Demonstration Pilot Project Habitat Documentation Report, the Waterfront Futures Group (WFG) Framework Plan, the Whatcom Creek Environmental Assessment and Restoration Plan (for the pipeline fire), and the Environmental Resources Division of the City's Public Works Department (to name only a few) all make specific restoration opportunity recommendations. The SMP Restoration Plan is not intended to take the place of or prioritize itself over these or other already established restoration plans that the City has initiated or completed.

INITIAL PROCEDURES

If you intend to develop or use lands adjacent to a shoreline of the state as defined in BMC 22.03, consult first with the Planning Department to determine if you need a shoreline permit; they will also tell you about other necessary government approvals.

To find out if your proposal is permitted by the Program, first determine which shoreline environment designation applies to your site. Then check to see if the environment designation policies and regulations in BMC 22.03 allow the proposed use. Your proposal may be permitted outright, allowed only as a conditional use, or prohibited. It may also require a variance.

Although your proposal may be permitted by Program regulations or even exempt from specific permit requirements, all proposals must comply with all relevant policies and regulations of the entire Program as well as the general purpose and intent of the SMP.

For development and uses allowed under this Program, the City must find that the proposal is generally consistent with the applicable policies and regulations, unless a variance is to be granted. When your proposal requires an approval or statement of exemption, submit the proper application to the City's Permit Center. Processing of your application will vary depending on its size, value, and features. Contact the Planning and Community Development Department at (360) 676-6982 for additional information.

This page intentionally left blank

INTRODUCTION

The shorelines of Bellingham have great social, ecological, recreational, cultural, economic and aesthetic value. Bellingham's lake, river, and near-shore areas provide citizens with clean water; deep-water port and industrial sites; habitat for a variety of fish and wildlife including salmon, shellfish, forage fish, and waterfowl; archaeological and historical sites; open space; and areas for boating, fishing, and other forms of recreation. In many cases, Bellingham's shoreline resources are limited and irreplaceable. Use and development of shoreline areas must be carefully planned and regulated to ensure that these values are maintained over time.

The City of Bellingham Shoreline Master Program (SMP or the Program) is a result of Washington State legislation requiring all jurisdictions to adequately manage and protect shorelines of the state. Washington's Shoreline Management Act (SMA or Act) (Revised Code of Washington [RCW] 90.48) was passed by the Legislature in 1971 and adopted by the public in a 1972 referendum. The goal of the SMA is "to prevent the inherent harm of uncoordinated and piecemeal development of the state's shorelines." The Act specifically states:

"It is the policy of the State to provide for the management of the shorelines of the State by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner, which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the State and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto."

The City of Bellingham prepared this SMP to meet the requirements of the Washington State SMA. This SMP provides goals, policies, and regulations for shoreline use and protection and establishes a permit system for administering the Program. The goals, policies, and regulations contained herein are tailored to the specific geographic, economic, and environmental needs of the City of Bellingham.

The Shoreline Management Act and its implementing legislation (Washington Administrative Code [WAC] 173-26 or Shoreline Guidelines) establish a broad policy giving preference to shoreline uses that:

- Depend on proximity to the shoreline ("water-dependent uses"),
- Protect biological and ecological resources, water quality and the natural environment,
and
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

The overall goal of this SMP is to achieve rational, balanced, and responsible use of our irreplaceable shorelines. In implementing this Program, the public's opportunity to enjoy the

physical and aesthetic qualities of shorelines of the State shall be preserved to the greatest extent feasible. Implementing the SMP must protect the ecological function of shorelines and, at a minimum, achieve a 'no net loss' of ecological function. Single-family residences; ports; shoreline recreational uses (including but not limited to parks, marinas, piers, and other improvements); water-dependent industrial and commercial developments; and other developments that depend on a shoreline location shall be given priority. Permitted shoreline uses shall be designed and conducted to minimize damage to the ecology of the shoreline and/or interference with the public's use of the water and, where consistent with public access planning, provide opportunities for the general public to have access to the shorelines.

The City of Bellingham last updated its SMP in 1989. Since that time, there have been substantial changes in the way shorelines are regulated. New scientific data and research methods have improved our understanding of shoreline ecological functions and their value in terms of fish and wildlife, water quality and human health. This information also helps us understand how development in these sensitive areas impacts these functions and values. The new Shoreline Guidelines, upon which this SMP is based, reflect this improved understanding and place a priority on protection and restoration of shoreline ecological functions.

22.01 AUTHORITY AND PURPOSE

22.01.10 AUTHORITY

Authority for enactment and administration of this Shoreline Master Program (SMP) is the Washington State Shoreline Management Act of 1971, Chapter 90.58 Revised Code of Washington (RCW), also referred to herein as "the Act" or SMA.

22.01.20 TITLE

This document shall be known and may be cited as Title 22 of the Bellingham Municipal Code (BMC) and referred to as "The Bellingham Shoreline Master Program," "the Program," or "the Master Program."

22.01.30 PURPOSES

- A. Consistent with the Shoreline Management Act, this Program is intended "to prevent the inherent harm of uncoordinated and piecemeal development of the state's shorelines."
- B. The specific purposes of this Program are to implement the following laws or the applicable elements of the following:
 1. Shoreline Management Act: RCW 90.58;
 2. Shoreline Guidelines: WAC 173-26;
 3. Shoreline Management Permit and Enforcement procedures: WAC 173-27;and to achieve consistency with the following laws or the applicable elements of the following:
 4. The Growth Management Act: RCW 36.70A;
 5. Bellingham Comprehensive Plan, 2006; and
 6. Bellingham Development Regulations pursuant to RCW 36.70A
- C. Further, this Program seeks to administer protection of critical areas within shoreline jurisdiction that is at least equal to that of the Critical Areas Ordinance and provides for no net loss of shoreline ecological function, BMC 16.55. (NOTE: This language mirrors RCW 90.58.090 [4])

OUTSIDE LEGAL COUNCIL REVISIONS

22.01.40 GOVERNING PRINCIPLES (WAC 173-26-186)

The following principles are from WAC 173-26-186:

- A. The purpose and intent of these governing principles is to articulate a set of foundation concepts that underpin the Shoreline Guidelines, guide the development of the planning policies and regulatory provisions of master programs, and provide direction to the Department of Ecology in reviewing and approving master programs. These governing principles, along with the policy statement of RCW

90.58.020, other relevant provisions of the Act, the regulatory reform policies and provisions of RCW 34.05.328, and the policy goals set forth in WAC 173-26-176 and 173-26-181 should be used to assist in interpretation of any ambiguous provisions and reconciliation of any conflicting provisions of the guidelines.

1. The Shoreline Guidelines are subordinate to the Act. Any inconsistency between the guidelines and the Act must be resolved in accordance with the Act.
2. The Shoreline Guidelines are intended to reflect the policy goals of the Act, as described in WAC 173-26-175 and WAC 173-26-180.
3. All relevant policy goals must be addressed in the planning policies of master programs.
4. The planning policies of master programs (as distinguished from the development regulations of master programs) may be achieved by a number of means, only one of which is the regulation of development. Other means, as authorized by RCW 90.58.240, include, but are not limited to: the acquisition of lands and easements within shorelines of the state by purchase, lease, or gift, either alone or in concert with other local governments and accepting grants, contributions, and appropriations from any public or private agency or individual. Additional other means may include but are not limited to, public facility and park planning, watershed planning, voluntary salmon recovery projects and incentive programs.
5. The policy goals of the Act, implemented by the planning policies of master programs, may not be achieved by development regulations alone. Planning policies should be pursued through the regulation of development of private property only to an extent that is consistent with all relevant constitutional and other legal limitations (where applicable, statutory limitations such as those contained in RCW 82.02 and RCW 43.21C.060) on the regulation of private property.
6. The territorial jurisdiction of the master program's planning function and regulatory function are legally distinct. The planning function may, and in some circumstances must, look beyond the territorial limits of shorelines of the state. (RCW 90.58.340) The regulatory function is limited to the territorial limits of shorelines of the state, RCW 90.58.140(1) as defined in RCW 90.58.030(2).
7. The planning policies and regulatory provisions of master programs and the comprehensive plans and development regulations, adopted under RCW 36.70A.040, shall be integrated and coordinated in accordance with RCW 90.58.340, RCW 36.70A.480, RCW 34.05.328(1)(h) and 1995 Washington laws Chapter 347, §1.
8. Through numerous references to and emphasis on the maintenance, protection, restoration, and preservation of fragile shoreline natural resources, public health, the land and its vegetation and wildlife, the waters and their aquatic life, ecology, and environment, the Act makes protection of the shoreline environment an essential statewide policy goal consistent with the other policy

goals of the Act. It is recognized that shoreline ecological functions may be impaired not only by shoreline development subject to the substantial development permit requirement of the Act but also by past actions, unregulated activities, and development that is exempt from the Act's permit requirements. The principle regarding protecting shoreline ecological systems is accomplished by these guidelines in several ways, and in the context of related topics. These include:

- a. Local government is guided in its review and amendment of local master programs so that it uses a process that identifies, inventories, and ensures meaningful understanding of current and potential ecological functions provided by affected shorelines.
- b. Local master programs shall include policies and regulations designed to achieve no net loss of those ecological functions.
 - i. Local master programs shall include regulations and mitigation standards ensuring that each permitted development will not cause a net loss of ecological functions of the shoreline; local government shall design and implement such regulations and mitigation standards in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property.
 - ii. Local master programs shall include regulations ensuring that exempt development in the aggregate will not cause a net loss of ecological functions of the shoreline.
- c. For counties and cities containing any shorelines with impaired ecological functions, master programs shall include goals and policies that provide for restoration of such impaired ecological functions. These master program provisions shall identify existing policies and programs that contribute to planned restoration goals and identify any additional policies and programs that local government will implement to achieve its goals. These master program elements regarding restoration should make real and meaningful use of established or funded non-regulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or non-regulatory programs under other local, state, and federal laws, as well as any restoration effects that may flow indirectly from shoreline development regulations and mitigation standards.
- d. Local master programs shall evaluate and consider cumulative impacts of reasonably foreseeable future development on shoreline ecological functions and other shoreline functions fostered by the policy goals of the Act. 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 among

development opportunities. Evaluation of such cumulative impacts should consider:

- i. Current circumstances affecting the shorelines and relevant natural processes; and
 - ii. Beneficial effects of any established regulatory programs under other local, state, and federal laws; and
 - iii. Reasonably foreseeable future development and use of the shoreline. It is recognized 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.
- e. The guidelines are not intended to limit the use of regulatory incentives, voluntary modification of development proposals, and voluntary mitigation measures that are designed to restore as well as protect shoreline ecological functions.
9. To the extent consistent with the policy and use preference of RCW 90.58.020, this chapter (WAC 173-26) and these principles, local governments have reasonable discretion to balance the various policy goals of this chapter in light of other relevant local, state and federal regulatory and non-regulatory programs and to modify master programs to reflect changing circumstances.
10. Local governments, in adopting and amending master programs and the Department of Ecology in its review capacity shall, to the extent feasible, as required by RCW 90.58.100(1):
- a. Utilize a systematic interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts;
 - b. Consult with and obtain the comments of any federal, state, regional or local agency having any special expertise with respect to any environmental impact;
 - c. Consider all plans, studies, surveys, inventories, and systems of classification made or being made by federal, state, regional, or local agencies, by private individual, or by organizations dealing with pertinent 'shorelines of the state';
 - d. Conduct or support such further research, studies, surveys, and interviews as are deemed necessary;
 - e. Utilize all available information regarding hydrology, geography, topography, ecology, economics, and other pertinent data; and

- f. Employ, when feasible, all appropriate, modern scientific data processing and computer techniques to store, index, analyze, and manage the information gathered.
11. In reviewing and approving local government actions under RCW 90.58.090, the Department of Ecology shall insure that the state's interest in shorelines is protected, including compliance with the policy and provisions of RCW 90.58.020.

22.01.50 FINDINGS

- A. The Bellingham City Council concurs with the State Legislature in finding that “the shorelines of the State are among the most valuable and fragile 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 the uplands adjacent thereto are in private ownership; that unrestricted construction on the privately owned or publicly owned shorelines of the state is not in the best public interest; and therefore coordinated planning is necessary in order to protect the public interest associated with the shorelines of the state while, at the same time, recognizing and protecting private property rights consistent with the 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.” (RCW 90.58.020)
- B. By ratifying Initiative 43B in the 1972 General Election, the people of the State approved the Shoreline Management Act. This law vests counties and cities with the primary responsibility for conserving certain shorelines through comprehensive planning and reasonable regulation of development and use.
- C. This Council deems the goals, objectives, shoreline environment designations, policies, regulations, and procedures set forth in this SMP to be essential to protection of the public health, safety and general welfare of the people of the City of Bellingham.

22.01.60 ENACTMENT

The City Council of Bellingham does hereby ordain and enact into law this SMP and all sections and paragraphs of this Title.

22.01.70 LIBERAL CONSTRUCTION

As provided for in RCW 90.58.900, the Shoreline Management Act is exempted from the rule of strict construction; the Act and this SMP shall therefore be liberally construed to give full effect to the purposes, goals, objectives, and policies for which the Act and this SMP were enacted and adopted, respectively.

22.02 SHORELINE GOALS AND POLICIES

22.02.10 GENERAL GOALS AND POLICIES

- A. The goals and policies of this SMP are intended to be comprehensive goal statements. These statements reflect and carry forward the ‘shoreline’ elements within the various plans listed below:
1. Department of Ecology Shoreline Master Program Guidelines WAC 173-26 (2003);
 2. Waterfront Futures Group (WFG) Framework and Action Plan (October, 2004) and resolution #2005-04 adopting the Guiding Principles and endorsing sub-area recommendations and early action items;
 3. City of Bellingham Comprehensive Plan (2006) and applicable Individual Neighborhood Plans;
 4. Final Environmental Impact Statement - City of Bellingham Comprehensive Plan Update (2004);
 5. Port of Bellingham Comprehensive Scheme of Harbor Improvements;
 6. Whatcom Creek Waterfront Action Plan (1998);
 7. Squalicum Creek Floodplain Management Plan (1994);
 8. Watershed Master Plan (1995), as amended;
 9. City of Bellingham Park, Recreation and Open Space Plan (2005);
 10. Whatcom Creek Trail Master Plan (1995); and
 11. Squalicum Creek Greenway Master Plan (1995).

22.02.20 SHORELINE GOALS

A. SHORELINE USE

The shoreline use element considers the proposed general distribution and general location and extent of the use of shorelines and adjacent land areas for housing, business, industry, transportation, agriculture, natural resources, recreation, education, public buildings and grounds, utilities and other categories of public and private land use.

1. Goal
 - a. Coordinate shoreline uses to insure uses that result in long-term over short-term benefit, protect and restore the shoreline resources and ecological functions, increase public access to the shoreline, and promote economic development and accommodate water-dependent uses.
2. Objectives
 - a. Upland areas adjacent to waters with appropriate depth shipping channels should be preserved for water-dependent and water-related uses unless

- otherwise stated. Water-enjoyment uses should be provided where substantial numbers of citizens can enjoy access to the water, physical or visual. (RCW 90.58.020)
- b. Marine shorelines such as Boulevard, Marine, Zuanich Point Parks and Little Squalicum Beach should be preserved for long-term water-enjoyment and public access, and the shorelines in said locations should be restored and/or at least bioengineered to provide improved shoreline ecological function.
 - c. Shoreline mixed-use development should be promoted in the areas between the historic Georgia Pacific (GP) log pond and Roeder Avenue, between the Taylor Avenue Dock and BNRR trestle in Fairhaven, Squalicum Marine Center between the inner and outer boat basins, the Squalicum Peninsula and the Cornwall Avenue Landfill. Shoreline mixed uses should be located in these areas due to their waterfront location, proximity to high-density residential areas, trail linkages and urban core areas (Central Business District & Fairhaven).
 - d. Where shoreline mixed uses occur, those areas should also be targeted for the restoration of shoreline ecological function.
 - e. At the time of annexation, the Mount Baker Plywood Peninsula should be considered a preferable area for mixed-use water-oriented development. These mixed-use shoreline developments have the opportunity to restore shoreline ecological functions, attract substantial numbers of citizens to the shoreline for public access, and stimulate economic development.
 - f. The Whatcom, Squalicum, Chuckanut and Padden Creek estuary systems as well as those pocket estuaries identified on the Marine maps in BMC 22.11 should be restored to achieve a net gain in ecological function. Restoration may include, but should not be limited to:
 - i. Creation of intertidal zone and bank re-sloping;
 - ii. Landfill, debris and piling removal;
 - iii. Remediation of contaminated aquatic and upland sediments;
 - iv. Establishment of native riparian and aquatic vegetation;
 - v. Identification of appropriate public access opportunities.
 - g. The Whatcom, Squalicum and Chuckanut Creek corridors should be restored and enhanced to achieve a net gain in shoreline ecological function.
 - h. Lagoons that are defined as pocket estuaries and pocket beaches, despite being heavily impacted over time, should be restored and protected for their ability to support a variety of marine and upland species, especially salmon.

- i. Impacts to Lake Whatcom as a drinking water source and a recreational area should be minimized. Uses within the Lake Whatcom Watershed should be guided by Joint Resolution Numbers 92-73 and 92-68 and the Lake Whatcom Reservoir Regulatory Chapter (BMC 16.80). Impervious surfaces and in-water and over-water structures should be reduced or minimized and native vegetation should be retained or established to help reduce impacts to this valuable resource. These local directives are mission statements for the City of Bellingham, Whatcom County and Water District Number 10 to protect and improve the water quality within the Lake Whatcom Watershed.
- j. Lake Padden should be regulated and preserved as a regional recreational attraction. The lake shoreline should be preserved and enhanced where feasible to improve the shoreline ecology and public access opportunities. Existing and new upland activities should be developed and/or monitored to preserve water quality for continued water-enjoyment and ecological function.

B. RESTORATION AND CONSERVATION

The restoration and conservation element provides for the preservation of existing and rehabilitation of degraded natural resources, ecosystem processes and functions, scenic vistas, and aesthetics. (Specific restoration sites called out in this section are examples and are not an exhaustive compilation. Please see the Restoration Plan, APPENDIX B for listings.)

1. Goal

- a. Restoration and conservation should occur via comprehensive restoration planning, public land acquisition, placing of conservation easements, site design and as development / redevelopment occurs. Activities that restore and enhance ecological functions of our shorelines should be emphasized. This Master Program's regulations and policies are required to achieve no net loss of shoreline ecological function on a reach and watershed scale. The restoration priority goals and objectives in the Restoration Plan (APPENDIX B) are intended to restore and improve ecological functions of our shorelines citywide.

2. Objectives

- a. Restoration should improve the ecological functions of aquatic and upland areas within shorelines.
- b. Shoreline restoration and conservation efforts should be coordinated with Whatcom County, Port of Bellingham and other public agencies, especially for shoreline systems whose watersheds extend into County jurisdiction.
- c. Development should take appropriate steps to avoid shoreline modification and stabilization, utilize a range of Low Impact Development techniques, minimize site disturbance, and avoid or minimize impacts to critical areas within shorelines.

-
- d. Redevelopment should be encouraged to improve ecological functions and restore riparian buffers where feasible.
 - e. Shorelines of Lake Whatcom should be restored in such a manner that bulkheads are removed, in-water structures are minimized, and a variety of native vegetation is planted within close proximity to the shoreline so that natural processes are reintroduced.
 - f. Restoration projects should be consistent with management recommendations developed by the Lake Whatcom Inter-jurisdictional Coordinating Team, (ICT) and the TMDL Response Plan (10-5-09 WS) as referenced in the Restoration Plan, APPENDIX B.
 - g. Shoreline modification that is intended to restore shorelines impacted by historical uses should be designed and constructed to restore natural processes within shorelines.
 - h. Restoration should be conducted in such a manner as to be consistent with the priority goals and objectives within the Restoration Plan, Appendix B.
 - i. Voluntary restoration should occur as resources become available with guidance from the Restoration Plan, Appendix B.
 - j. Comprehensive restoration planning should implement a framework of citywide restoration goals and priorities consistent with RCW 90.58.340, including for the non-SMA stream drainages and wetlands contributing to the shorelines of the state. Restoration planning should also prioritize projects so that when resources are made available, projects will already be identified for their anticipated improvements to our natural systems.
 - k. Squalicum, Whatcom, Padden and Chuckanut Creek estuaries as well as other tidally influenced lagoons or pocket estuaries and pocket beaches should be restored in order to provide an improved level of habitat function and processes. These pocket estuaries are valuable for their diversity of aquatic and upland species habitat opportunities and their ability to support non-natal anadromous fish. As redevelopment occurs adjacent to these areas, these estuaries should be restored to achieve the following:
 - i. Improved tidal floodwater attenuation;
 - ii. Improved nutrient filtering and recycling;
 - iii. Higher quality shellfish habitat;
 - iv. Increased biological support and habitat value for juvenile salmonids and other upland species;
 - v. Shoreline stabilization and large woody debris (LWD) recruitment via native vegetation.

- l. Restoration efforts should be consistent with the Function Analysis sections for each shoreline reach within the 2004 City of Bellingham Shoreline Characterization and Inventory (SCI).
- m. Bellingham's shorelines and their ecological functions should be inventoried simultaneous with future updates to the Shoreline Master Program and the City's Critical Areas Ordinance in order to determine if there has been a net gain in overall ecological function of our shoreline areas and within our watersheds.
- n. Conservation efforts should be focused on protecting and sustaining ecological functions via protection with conservation easements or dedications to the City of Bellingham for public benefit.
- o. Restoration should occur as remediation of contaminated sediments or sites occur within shorelines and should result in a net gain in shoreline ecological function.

C. ECONOMIC DEVELOPMENT

The economic development element provides for the location and design of industries, transportation facilities, port facilities, tourist facilities, commerce and other developments that depend on the shorelines of the state for their location or use.

1. Goal

- a. Preserve the federal shipping channels and their adjacent upland areas for water-oriented uses. Priority should be given for water-dependent and water-related uses in these areas because they have appropriate depth for a variety of vessels including commerce, tourism, transient and permanent moorage and transportation linkages.
- b. Upland areas that are not within proximity to the aforementioned shipping channels should be reserved for water-related and water-enjoyment uses and shoreline mixed uses where appropriate.
- c. Development on freshwater shorelines should allow for uses consistent with the applicable underlying zoning while improving the shoreline ecological function of the adjacent water body.

2. Objectives

- a. Development on shorelines should result in no net loss of ecological function. Redevelopment should be encouraged to improve ecological functions and restore riparian buffers.
- b. Development of areas for water-dependent uses should be consistent with applicable state and federal laws.
- c. Economic development on City shorelines should focus on a multi-use concept with emphasis on 'infill' areas identified in the 2004 Comprehensive Plan EIS. Providing public access to the shorelines should be an integral element of mixed-use development. Restoring, enhancing

and protecting shoreline ecological functions should also be implemented such that a no net loss of shoreline ecological function is achieved.

- d. Shoreline mixed uses are encouraged along the marine waterfront especially where either redevelopment planning occurs or where navigability is not presently available. Mixed uses should include all uses that are not water-oriented such as services, retail, offices and residential uses, where appropriate, along with water-oriented uses. Examples of potential areas for shoreline mixed uses are the south side of the Whatcom Waterway between the historic GP log pond and Roeder Avenue, Cornwall Avenue Landfill, the area between Padden Lagoon and Taylor Dock, Bellwether Peninsula and Marine Center, Tilbury Cement Plant and the Mount Baker Plywood Peninsula.
- e. Where economic development occurs along Whatcom, Squaticum and Chuckanut Creeks, their estuaries and/or their tributary confluence zones, riparian and ecological function should be restored, enhanced and/or protected. Developments should be designed to improve public access and should be oriented towards the shoreline in a manner that does not conflict with riparian restoration.
- f. Riparian corridors of the City should be protected such that there is a net gain in shoreline ecological function. Additional protection standards may be employed in concert with other opportunities including but not limited to: acquiring ownership, employing effective design standards, reducing impervious lot coverage, and using Low Impact Development techniques.
- g. Overall, economic development of our shorelines should continue to be a viable opportunity and provide for restoration of ecological function and public access where appropriate.

D. PUBLIC ACCESS

The public access element provides for public access to publicly or privately owned shoreline areas where the public is granted a right of use or access to the water either physically or visually.

1. Goal

- a. Public access should be provided wherever feasible and where it will not impact ecological functions and habitat connectivity. As the Bellingham population increases and areas along City shorelines redevelop, preservation of existing access and development of new access opportunities to the shorelines for our citizens must be balanced with protection and preservation of shoreline ecological function.

2. Objectives

- a. Public access should be provided to all marine shorelines unless it impacts the existing ecological function of shorelines and provided it does not impact existing water-dependent uses and/or compromise the health, safety and welfare of our citizens.

-
- b. Public access opportunities should be provided to our creeks provided there is no net loss of shoreline ecological function including impacts to existing habitat corridors within those riparian areas. Where a conflict exists between public access and protection, protection should take precedence.
 - c. Public access, whenever feasible, should be designed and developed per adopted and approved public access plans such as the City of Bellingham Park, Recreation and Open Space Plan (2005) and the Port of Bellingham Comprehensive Scheme of Harbor Improvements and the Waterfront District Master Plan, upon its adoption.
 - d. Public access opportunities should be provided in the form of view overlooks, street ends that abut marine or fresh water, orientation of development to the shoreline, and/or property acquisition.
 - e. The development of public access facilities should preserve the existing upland character and preserve and restore where feasible the ecological function of the City's shorelines.
 - f. Public access should continue to be developed to the Whatcom, Squalicum, Padden and Chuckanut Creek corridors especially where connections can be made to other trail and transportation linkages and public open spaces.
 - g. Restoration of the estuarine systems along our shorelines should include public access where habitat conditions, topography and safety considerations allow.
 - h. Areas identified for establishment or enhancement of shoreline public access may include but should not be limited to:
 - i. Central Avenue Waterfront and historic Georgia Pacific campus;
 - ii. Colony Wharf;
 - iii. Pocket beach at the head of the I & J Waterway;
 - iv. Pocket beach at the foot of Cornwall Avenue and around the perimeter of the Cornwall Avenue Landfill;
 - v. Over-water walkway from the south end of the Cornwall Avenue Landfill to the north end of Boulevard Park;
 - vi. At-water level trail connecting Marine Park to the Edgemoor and Chuckanut shoreline areas and eventually to the Coast Millennium Trail near Woodstock Farm;
 - vii. Pocket beaches at the foot of C and G Streets;
 - viii. Perimeter of the Mount Baker Plywood Peninsula;

- ix. Little Squalicum Beach;
 - x. Whatcom, Squalicum, Padden and Chuckanut Creek estuaries;
 - xi. Shoreline between Taylor Avenue Dock and Alaska Ferry Terminal;
 - xii. Perimeter of Georgia Pacific ASB.
- i. Marine shorelines at Boulevard, Marine and Zuanich Point Parks, Little Squalicum Beach and at the head of Chuckanut Bay should be preserved for long-term public access and ecological restoration. Shoreline mixed uses in the areas such as the south side of the Whatcom Waterway between the historic GP log pond and Roeder Avenue, Cornwall Avenue Landfill, the area between Padden Lagoon and Taylor Dock, Bellwether Peninsula and Marine Center, Tilbury Cement Plant and the Mount Baker Plywood Peninsula should be encouraged to take advantage of their shoreline location and proximity to high-density residential areas, trail linkages and urban core areas (for example, Central Business District & Fairhaven).
 - j. Public access at Lake Padden, Bloedel Donovan, Whatcom Falls, Cornwall and Arroyo Parks should be preserved, as these are excellent opportunities for a substantial number of citizens to access the shorelines.
 - k. Due to their unique and/or fragile geological or biological characteristics and importance to local citizens, designated fish and wildlife habitat and conservation areas should be protected from the adverse effects of public access.
 - l. Public access opportunities along the marine waterfront should be coordinated with Burlington Northern Railroad to provide safe access for citizens.

E. RECREATION

The recreation element provides for the preservation and expansion of recreational areas and opportunities, including but not limited to parks, tidelands, beaches, bicycle and pedestrian paths, viewpoints and other recreational amenities.

- 1. Goals
 - a. The amount of shorelines dedicated to public recreation should be increased and their potential optimized.
 - b. Development of recreation uses should not result in a net loss of shoreline ecological function.

2. Objectives

- a. Water-oriented recreational uses should be promoted along the shorelines so long as the ecological function of the shoreline is not decreased by such activities. Recreation that is not water-oriented should only be located in areas where potential water-dependent uses are not anticipated.
- b. Development of recreational facilities along City shorelines should implement Low Impact Development techniques whenever feasible.
- c. The objectives of the City of Bellingham Park, Recreation and Open Space Plan (2005) should be implemented where applicable through this plan's policies and regulations, and especially Chapter 4 (Opportunities).
- d. Land should be acquired and bicycle/pedestrian trails should be constructed along shoreline routes as indicated in the City of Bellingham Park, Recreation and Open Space Plan (2005).
- e. The City should pursue an ongoing program of shoreline property acquisition for public access at the time of development via purchase, dedication and granting of public access easements. The City should also pursue Local Improvement District provisions for future public access features.
- f. Existing and new upland activities should be developed and/or monitored to preserve water quality for continued water-enjoyment recreational uses (e.g., swimming, boating, fishing and bird-watching).

F. CIRCULATION

The circulation element consists of the general location and extent of existing and proposed transportation routes including arterials and access streets, terminals, and other public utilities and facilities, all correlated with the shoreline use element.

1. Goal

- a. Develop a balanced and efficient water and land transportation system that minimizes adverse environmental impacts on shorelines while contributing to the functional and visual enhancement of the system. Development of new circulation plans should emphasize alternative modes of transportation (e.g., bicycles, pedestrians) within close proximity to shorelines as opposed to new systems for automobiles.

2. Objectives

- a. New roadways for vehicle circulation should be located outside of or minimized within the shoreline jurisdiction. Where no feasible alternative exists for new roadways, mitigation should be provided and should be designed for a variety of transportation modes or multi-modal.
- b. Where new roadways do occur in shoreline jurisdiction, the result should be no net loss of shoreline ecological function.

- c. Circulation from Downtown to and along the Central Waterfront including the Georgia Pacific property should continue to be developed through the Whatcom Creek/Maritime Heritage Center/Old Town Corridor for alternative modes of transportation (pedestrians, bicyclists, ADA).
- d. A continuous circulation system along the marine shoreline from the Little Squalicum Beach to the Post Point Lagoon should be created and preserved for alternative transportation modes. Pedestrian circulation to Whatcom, Squalicum, Chuckanut and Padden Creeks and their associated estuaries should be improved where ecological functions of the shoreline will not be adversely affected. Where there is a conflict between circulation systems and ecological functions and/or habitat, then the ecological functions and habitat shall take precedence. Recreational circulation should continue along Lake Padden and Lake Whatcom where such circulation will not adversely impact the ecological function of the shoreline.
- e. Existing shoreline circulation should be redesigned to accommodate varied modes of transportation and, where feasible, be used as a means of increasing public enjoyment of the shorelines. Examples include but are not limited to water taxis, transit, 'trolley' or railway circulation between Downtown and Fairhaven, new bike lanes or public walkways over-water between the central waterfront and Fairhaven.
- f. Existing water transportation systems for industrial, commercial and recreational uses should be maintained. Where feasible and consistent with the Waterfront Futures Group Framework Plan, access points at the aquatic / upland interface should be installed where water-borne circulation can provide alternate means of mobility throughout the City and the region, as well as enhance the economic and recreational benefits to the public provided that there is no net loss of shoreline ecological function.

G. HISTORY, CULTURAL AND EDUCATION

This element provides for protection and restoration of buildings, sites, and areas having historical, cultural, scientific, or educational values.

1. Goal
 - a. Protect the public's interest in the conservation, preservation, and protection of the state's archaeological resources, and the knowledge to be derived and gained from the scientific study of these resources.
2. Objectives
 - a. Shoreline areas having historical and/or cultural significance, especially those shorelines that historically supported the Lummi Nation and Nooksack Tribe, should be identified, preserved, protected, and restored.
 - b. Cooperation among public and private groups in the research and study of historical or cultural sites within the City should be encouraged.

- c. Historical or cultural sites should be considered in park and open space and public access planning, subject to consultation with the Lummi Nation and Nooksack Tribe.
- d. Funds for the acquisition and/or restoration of sites having historical/cultural significance should be sought.
- e. Efforts to protect and promote the historical, cultural, scientific and educational resources within the City of Bellingham should be prioritized. These include but are not limited to:
 - i. Lummi and Nooksack Tribal resources (cultural, historical);
 - ii. Maritime Heritage Center (cultural, historical, educational);
 - iii. Little Squalicum Beach (historical);
 - iv. Chuckanut, Padden, Whatcom and Squalicum Creek estuaries (scientific, educational); and
 - v. Lake Whatcom Watershed (all).
- f. Development and redevelopment along the marine shorelines should be consistent with RCW 27.44 and RCW 27.53 and WAC 25-48.

H. FLOOD DAMAGE MINIMIZATION

Flood damage minimization is the ability to regulate future development and required infrastructure and plan for restoration of floodplain functions.

1. Goal

- a. Establish and implement appropriate floodplain management strategies to minimize private and public property damage, and to improve the ecological functions and prevent habitat loss in wetlands, streams, estuaries and the marine near-shore.

2. Objectives

- a. The applicable elements of BMC 17.76 (Construction in Floodplains) and the 1995 Watershed Master Plan, as amended, and the Squalicum Creek Floodplain Management Plan (October 1995) should be implemented concurrent with development to manage frequently flooded areas along Bellingham's shorelines.
- b. New scientific studies/information on tsunamis and sea level rise should be used to guide shoreline development as it becomes available and accepted as scientifically valid.³

³ City staff is monitoring information available from the University of Washington's Climate Impact Group and others to determine the sea level rise scenarios most likely to occur in Puget Sound. That determination will be included in the Adaptation section of the Climate Change Action Plan currently under construction by the Environmental Resources Division of Public Works. Same division will also be participating in the Washington

- c. Development within channel migration zones (CMZs) should be prohibited.
- d. Actions within shorelines should be conducted in a way that maintains and restores the CMZ where floodplains and/or CMZs are identified.

I. WATER QUALITY

All development actions taken Citywide affect water quality. This Program should implement policies and regulations that improve water quality of our shorelines.

1. Goal

- a. All development along the shorelines of the City should include measures to protect and/or improve water quality.

2. Objectives

- a. Improvements to water quality within the City of Bellingham should be achieved via the Restoration Plan in APPENDIX B. The Restoration Plan specifies priority goals, objectives, management recommendations and restoration projects that are intended to achieve an improvement to water quality within the City. The Restoration Plan is not intended to take the place of or have priority over existing water quality improvement programs already underway by the City of Bellingham or as required by the State.
- b. Current (2005) stormwater standards and Low Impact Development techniques should be used for development on shoreline parcels where site conditions allow. Low Impact Development techniques within the 2005 Department of Ecology Stormwater Management Manual for Western Washington should be incorporated into site design to minimize impacts on water quality and ecological function where appropriate.
- c. Impervious surfaces should be reduced or minimized and native vegetation of a height and species sufficient to provide shade and filtration to adjacent water bodies should be retained or established to help reduce pollutant loading to shorelines, especially Lake Whatcom, and other water bodies that are listed on the Department of Ecology's 303(d) list. (33 USC 1313d, RCW 90.48, WAC 173-201A and WAC 173-204.)
- d. In-water structures should be minimized or bioengineered where feasible to help improve the near-shore environment for those species that use and depend on it.
- e. Existing stormwater systems should be retrofitted to provide improved water quality treatment.
- f. Uses and restoration planning within the Lake Whatcom Watershed should be guided by the Lake Whatcom Reservoir Management Plan Joint Resolution Numbers 92-73 and 92-68 and the Lake Whatcom Reservoir

Regulatory Chapter, BMC 16.80 (also known as the Silver Beach Ordinance or SBO) to improve the water quality within the Lake Whatcom Watershed.

- g. As of 2009, the TMDL Response Plan is the most current and up to date scientific information available to protect and improve the water quality of Lake Whatcom. This response plan includes elements of the 2010-2014 Work Plan established by the Inter-jurisdictional Coordinating Team (ICT) as well as the Recommended Management Action for Protection and Restoration of the Lake Whatcom Reservoir prepared by the Lake Whatcom Reservoir Technical Review Task Force in May 2009. This plan should be implemented either through future code revisions or in the development of future watershed protection programs. (10/5/2009 WS)

NOTE: The Lake Whatcom Work Plans are written by the Lake Whatcom Inter-jurisdictional Coordinating Team (ICT) which is comprised of staff from City of Bellingham, Whatcom County and Water District #10. The ICT writes the plans, implements the plan tasks, and reports on task progress to the Joint Councils and Commissioners biannually. The ICT also responds to the respective jurisdictions as new issues and priorities arise.

22.03 JURISDICTION, MAPS AND ENVIRONMENT DESIGNATIONS

22.03.10 SHORELINE JURISDICTION

- A. The provisions of this Program shall apply to all shorelines of the state, all shorelines of statewide significance and shorelands (all referred to as shorelines) as defined in RCW 90.58.030. The shoreline maps within BMC 22.11.10 *Shoreline Designation Maps* and 22.11.20 *Shoreline and Statewide Significance Map* show the bodies of water that have been identified as shorelines, generally, and are an integral part of this Program.
- B. The extent of shoreline jurisdiction on an individual lot, parcel or tract is to be determined by field investigations and a survey /or engineered drawings and the resultant materials are the sole responsibility of the project applicant/owner. Said investigation/survey/ engineered drawings shall be included in shoreline permit application submittals in order for the City to determine the extent of shoreline jurisdiction.⁴
- C. Shorelines of the state may also be Fish and Wildlife Habitat Conservation Areas, as designated in BMC 16.55.470. Critical areas that may occur within the City of Bellingham's shoreline jurisdiction per BMC 16.55 include: wetlands, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas. All such critical areas that are within the shoreline jurisdiction shall be managed and regulated per this Program.
 1. When a critical area overlaps into the jurisdiction of a shoreline or is partly within and partly outside of shoreline jurisdiction, the buffer and/or setback from the portion of the critical area that is outside of the shoreline jurisdiction is subject to the Critical Areas Ordinance; BMC 16.55.
- D. In the City of Bellingham, shorelines of the state are:
 1. Bellingham Bay (also a shoreline of statewide significance seaward of extreme low tide per BMC 22.04 and as shown in BMC 22.11.20 *Shorelines of Statewide Significance Map*);
 2. Lake Whatcom (also a shoreline of statewide significance per BMC 22.04 and as shown in BMC 22.11.20 *Shorelines of Statewide Significance Map*);
 3. Lake Padden;
 4. Whatcom Creek;
 5. Squalicum Creek;
 6. Chuckanut Creek;

⁴ Natural or restored shoreline ecosystems and processes that occur over time, such as channel migration or sea level rise, have the potential to alter the point of beginning (ordinary high water mark, outer extent of a floodway, floodplain or channel migration zone) from which the extent of shoreline jurisdiction is measured. In these instances, determination of said point of beginning is subject to B., above.

7. Tidally influenced portion of Padden Creek (upstream to McKenzie Avenue);
 8. Padden Lagoon;
 9. Chuckanut Bay; and
 10. Tidally influenced lagoons or pocket estuaries as identified on the shoreline maps, BMC 22.11.10 *Shoreline Designation Maps*.
- E. Shorelines of statewide significance in the City of Bellingham are identified and defined in BMC 22.04 and shown in BMC 22.11.20 *Shoreline and Statewide Significance Map*.
- F. Adjacent lands to shorelands shall also be considered in shoreline permit proposals as specified in RCW 90.58.340.

22.03.20 SHORELINE MAPS

- A. The shoreline maps in BMC 22.11.10 *Shoreline Designation Maps* are the graphic representation of the City's shorelines that are regulated by this Program. Each shoreline map identifies a shoreline environment designation and individual shoreline reaches that correspond to the Shoreline Characterization and Inventory (APPENDIX A). The shoreline maps do not show the extent of shoreline jurisdiction but depict which water bodies are regulated by this Program.
- B. Each shoreline reach is assigned a shoreline environmental designation (designation) in accordance with BMC 22.03.30 *Shoreline Environmental Designations*. These designations function like a zoning overlay for shorelines and provide a framework for allowing certain uses and implementing shoreline policies and regulations. The shoreline environmental designation has been assigned consistent with the criteria specified in WAC 173-26-211 and referenced in APPENDIX C - Shoreline Environment Designation Criteria.
- C. In cases where development on a shoreline crosses or overlaps two different designations, or where two or more different critical areas are within the shoreline jurisdiction, the more protective requirements within this program shall apply. If disagreement develops as to the exact location of a shoreline designation boundary line, the following rules shall apply:
1. Boundaries indicated as approximately following lot, tract, or section lines shall be so construed;
 2. Boundaries indicated as approximately following roads or railways shall be respectively construed to follow their centerlines;
 3. Boundaries indicated as approximately parallel to or extensions of features indicated in 1. or 2. above shall be so construed; and
 4. Boundaries indicated as approximately occurring at definite changes in topography, shoreforms, geology, soils, or vegetative cover shall be so construed.
- D. Whenever existing physical features are inconsistent with boundaries on the Shoreline Map, the City shall interpret the boundaries. Appeals may be made from such

interpretations pursuant to BMC 22.06.060.

22.03.30 SHORELINE ENVIRONMENT DESIGNATIONS

This section identifies the six shoreline environment designations used in the City of Bellingham and their respective purposes, management policies, allowed uses and development regulations.

A. NATURAL (N)

1. Purpose - To protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use. Natural designated shorelines are best suited for very low-intensity uses to ensure that ecological function and ecosystem-wide processes are maintained.
2. Management Policies
 - a. Any use that would adversely affect the ecological functions or natural character of the shoreline, including channel migration zones, pocket estuaries and pocket or accretion beaches, should not be allowed.
 - b. Development should only be allowed when no suitable alternative building sites are available on the parcel outside of the shoreline jurisdiction.
 - c. Development, when permissible, should be designed and located to preclude the need for shoreline modification or stabilization, flood control works, native vegetation removal and other shoreline modifications.
 - d. All impacts to ecological function and values should be fully mitigated with the mitigation sequencing specified in BMC 22.08.20 *Mitigation Sequencing* of this Program.
 - e. Preservation of ecological function of shorelines including critical areas should have priority over public access, recreation and development objectives whenever a conflict exists.
 - f. Roads and utility corridors should be located outside of the Natural environment unless no other feasible alternative exists.
 - g. New development, including subdivision of property that requires significant vegetation removal or shoreline modification that would reduce the capability of vegetation to perform ecological functions, should not be allowed. Each new parcel, lot or tract should be able to support its intended development without significant ecological impacts to shoreline ecological functions.
 - h. Scientific, historical, cultural, educational research uses and low-intensity water-oriented recreational access uses (swimming, fishing, picnicking, hand carry boating) may be allowed provided that no significant ecological impacts will occur.
3. Reaches designated Natural

TITLE 22 SHORELINE MASTER PROGRAM

22.03 SHORELINE AREA DESIGNATIONS

- a. Marine 1 and 18 – 20;
- b. Chuckanut Creek 2 & 3;
- c. Whatcom Creek 6 – 8;
- d. Lake Padden 2 – 4; and
- e. Lake Whatcom 1.

4. Uses

Natural – Marine – BMC 22.03.30.A.4

Use & Modification Table As further limited by zoning	<u>Aquaculture</u>	<u>Boating Facilities</u>	<u>Commercial Development</u>	<u>Dredging and Disposal</u>	<u>Industrial Development</u>	<u>In-water Structures</u>	<u>Piers, Floats, Pilings</u>	<u>Landfill</u>	<u>Recreational Development</u>	<u>Residential Development</u>	<u>Restoration & Conservation</u>	<u>Roads, Railways, & Utilities</u>	<u>Stormwater Management Facilities</u>
<u>Marine 1 & 18-20</u>	<u>P</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>P/X</u>	<u>C</u>	<u>P</u>	<u>C</u>	<u>C</u>

Note: Commercial agriculture and mining are not permitted uses within the City of Bellingham. Forest practice only allowed as Class IV.

Legend:

P = Permitted (SDP or Exemption)

C = Conditional Use Permit

X = Prohibited

/ = Water oriented / Non-water-oriented

Natural – Freshwater – BMC 22.03.30.A.4

Use & Modification Table As further limited by zoning	<u>Aquaculture</u>	<u>Boating Facilities</u>	<u>Commercial Development</u>	<u>Dredging and Disposal</u>	<u>Industrial Development</u>	<u>In-water Structures</u>	<u>Piers, Floats, Pilings</u>	<u>Landfill</u>	<u>Recreational Development</u>	<u>Residential Development</u>	<u>Restoration & Conservation</u>	<u>Roads, Railways, & Utilities</u>	<u>Stormwater Management Facilities</u>
<u>Chuckanut 2-3</u>	<u>C</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>C/X</u>	<u>X</u>	<u>X</u>	<u>P</u>	<u>C</u>	<u>P</u>	<u>P</u>	<u>P</u>
<u>Whatcom 6-7</u>	<u>C</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>C/X</u>	<u>X</u>	<u>X</u>	<u>P</u>	<u>C</u>	<u>P</u>	<u>P</u>	<u>P</u>
<u>Whatcom 8</u>	<u>C</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>C/X</u>	<u>X</u>	<u>X</u>	<u>P</u>	<u>C</u>	<u>P</u>	<u>P</u>	<u>P</u>
<u>Lake Padden 2-4</u>	<u>C</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>P/X</u>	<u>X</u>	<u>P</u>	<u>C</u>	<u>P</u>	<u>P</u>	<u>P</u>
<u>Lake Whatcom 1</u>	<u>C</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>C/X</u>	<u>X</u>	<u>X</u>	<u>P</u>	<u>C</u>	<u>P</u>	<u>P</u>	<u>P</u>

Note: Commercial agriculture and mining are not permitted uses within the City of Bellingham. Forest practice only allowed as Class IV.

Legend:

P = Permitted (SDP or Exemption)

C = Conditional Use Permit

X = Prohibited

/ = Water oriented / Non-water-oriented

5. Regulations

- a. Development within shorelines designated as Natural shall result in no net loss of shoreline ecological functions.
- b. Critical Areas – When permitted, development within critical areas or their buffers that occur in the shoreline jurisdiction shall comply with the applicable provisions of this Program.

- c. Setbacks, Buffers and Height - Development shall be in accordance with the table in BMC 22.11.30 A, *Development Regulation Matrices*.. For shorelines where critical areas other than Fish and Wildlife Habitat Conservation Areas (FWHCAs) are present, the most protective buffer as set forth in this program shall apply. The criteria for requiring a buffer width greater than the minimum are specified in BMC 22.08.10.B.2 - *Shoreline Buffers*
- d. Specific uses and activities within the Natural designation shall also comply with the applicable requirements in BMC 22.08 and 22.09.
- e. Public access shall only be required in conjunction with a non-water oriented use (excluding single-family residences when developed individually or in a subdivision of 4 or fewer lots) and shall be provided subject to the requirements within BMC 22.08.90 *Public Access*.
- f. Public access is not required for development within shorelines that are designated Natural AND are zoned 'Public.'
- g. For substantial development on private property on any of Chuckanut, Whatcom or Squalicum Creeks, a conservation easement shall be recorded with the Whatcom County Auditor across the required buffer area. Said conservation easement shall be recorded prior to issuance of building permits for the subject development.

B. URBAN CONSERVANCY (UC)

1. Purpose – To protect and restore ecological functions, open space, floodplains, and other sensitive lands, where they exist in urban and developed settings, while allowing a variety of compatible uses. Urban Conservancy shorelines should provide opportunities for substantial numbers of citizens to have visual and/or physical access to the shoreline provided said access does not decrease ecological function.
2. Management Policies
 - a. New development should be designed and located to preclude the need for shoreline armoring, flood control works, vegetation removal and other shoreline modifications.
 - b. All impacts to ecological function and values should demonstrate compliance with the mitigation sequencing specified in BMC 22.08.20 *Mitigation Sequencing* of this Program such that the result is no net loss of ecological function.
 - c. Restoration of shoreline ecological function concurrent with development and redevelopment within Urban Conservancy shorelines should be a priority.
 - d. Allowed uses should be those that would preserve the natural character of the area and/or promote the protection and restoration of ecological function within critical areas and public open spaces, either directly or over the long term.

- e. When development requires shoreline modification or stabilization, ‘bioengineered’ shoreline stabilization measures, conservation of native vegetation, and Low Impact Development techniques for surface water management should be implemented to minimize adverse impacts to existing shoreline ecological functions unless some other form of modification or stabilization is necessary.
 - f. Public access and public recreation objectives should be implemented whenever feasible and adverse ecological impacts can be avoided. Continuous public access along the marine shoreline should be provided, preserved, or enhanced consistent with this policy.
 - g. Public access should not be provided where it would compromise the health, safety and welfare of the general public or site security, and where it would conflict with a permitted use or the existing and/or planned restoration of shoreline ecological function.
 - h. Protection of ecological functions should have priority over public access, recreation and other development objectives whenever a conflict exists.
 - i. Existing historic and cultural buildings and areas should be preserved, protected and reused when feasible.
 - j. Development or use on the shorelines or within aquatic areas of Lake Whatcom that are designated as Urban Conservancy shall also comply with BMC 22.04 of this Title.
3. Reaches designated Urban Conservancy
- a. Marine 2-3 & 8 – 10 & 12 – 17 & 21;
 - b. Whatcom Creek 1 – 5;
 - c. Chuckanut Creek 1 & 4;
 - d. Padden Creek 1;
 - e. Squalicum Creek 1– 11;
 - f. Lake Padden 1 & 3; and
 - g. Lake Whatcom 4 – 5.

4. Uses

Urban Conservancy – Marine – BMC 22.30.03.B.4

Use & Modification Table As further limited by zoning	<u>Aquaculture</u>	<u>Boating Facilities</u>	<u>Commercial Development</u>	<u>Dredging and Disposal</u>	<u>Industrial Development</u>	<u>In-water Structures</u>	<u>Piers, Floats, Pilings</u>	<u>Landfill</u>	<u>Recreational Development</u>	<u>Residential Development</u>	<u>Restoration & Conservation</u>	<u>Roads, Railways, & Utilities</u>	<u>Stormwater Management Facilities</u>
<u>Marine 2</u>	p	x	p/c	c/x	p/c	p/x	c ¹ /x	x	p/x	p	p	p	p
<u>Marine 3</u>	p	p	p/c	c/x	p/c	p/x	c ¹ /x	x	p/x	x	p	p	p

TITLE 22 SHORELINE MASTER PROGRAM

22.03 SHORELINE AREA DESIGNATIONS

<u>Marine 3 w/in City</u>	<u>p</u>	<u>p</u>	<u>p/c</u>	<u>c/x</u>	<u>p</u>	<u>p/x</u>	<u>p/x</u>	<u>x</u>	<u>p/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 8</u>	<u>p</u>	<u>x</u>	<u>p/c</u>	<u>c/x</u>	<u>x</u>	<u>p/x</u>	<u>p/x</u>	<u>x</u>	<u>p/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 9</u>	<u>p</u>	<u>c</u>	<u>p/c</u>	<u>c/x</u>	<u>x</u>	<u>p/x</u>	<u>p/x</u>	<u>x</u>	<u>p/x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 10</u>	<u>p</u>	<u>c</u>	<u>p</u>	<u>x</u>	<u>p</u>	<u>p/x</u>	<u>c¹/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 12</u>	<u>p</u>	<u>x</u>	<u>p</u>	<u>c/x</u>	<u>p</u>	<u>p/x</u>	<u>c¹/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 13</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>c/x</u>	<u>x</u>	<u>p/x</u>	<u>x/x</u>	<u>x</u>	<u>p/x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 14, 16</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>c/x</u>	<u>x</u>	<u>p/x</u>	<u>x/x</u>	<u>x</u>	<u>p/x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 15</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>c/x</u>	<u>x</u>	<u>p/x</u>	<u>x/x</u>	<u>x</u>	<u>p/x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 17</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>c/x</u>	<u>x</u>	<u>p/x</u>	<u>x/x</u>	<u>x</u>	<u>p/x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Marine 21</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>c/x</u>	<u>x</u>	<u>p/x</u>	<u>x/x</u>	<u>c²</u>	<u>p/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Whatcom 1 north upstream of Holly</u>	<u>p</u>	<u>c</u>	<u>p</u>	<u>c/x</u>	<u>p</u>	<u>p/x</u>	<u>c¹/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Whatcom 1 south upstream of Holly</u>	<u>p</u>	<u>x</u>	<u>p</u>	<u>c/x</u>	<u>p</u>	<u>p/x</u>	<u>c¹/x</u>	<u>x</u>	<u>p</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Whatcom 1 north btwn Holly/Roeder</u>	<u>p</u>	<u>c</u>	<u>p</u>	<u>c/x</u>	<u>p</u>	<u>p/x</u>	<u>c¹/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Whatcom 1 south btwn Holly/Roeder</u>	<u>p</u>	<u>x</u>	<u>p</u>	<u>c/x</u>	<u>p</u>	<u>p/x</u>	<u>c¹/x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>

¹ Public Water-Enjoyment uses in/over water require CUP (Except on Lake Whatcom & Lake Padden)

² Only permitted as an element of a Water-dependent use.

Note: Commercial agriculture and mining are not permitted uses within the City of Bellingham. Forest practice only allowed as Class IV.

Legend:

P = Permitted (SDP or Exemption)

C = Conditional Use Permit

X = Prohibited

/ = Water oriented / Non-water-oriented

Urban Conservancy – Fresh Water – BMC 22.03.30.B.4

Use & Modification Table <i>As further limited by zoning</i>	<u>Aquaculture</u>	<u>Boating Facilities</u>	<u>Commercial Development</u>	<u>Dredging and Disposal</u>	<u>Industrial Development</u>	<u>In-water Structures</u>	<u>Piers, Floats, Pilings</u>	<u>Landfill</u>	<u>Recreational Development</u>	<u>Residential Development</u>	<u>Restoration & Conservation</u>	<u>Roads, Railways, & Utilities</u>	<u>Stormwater Management Facilities</u>
<u>Chuckanut 1 & 4</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>c/x</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>p/x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Padden Creek 1</u>	<u>p</u>	<u>x</u>	<u>p</u>	<u>c/x</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>p/x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>
<u>Whatcom 2-5</u>	<u>p</u>	<u>x</u>	<u>p</u>	<u>c/x</u>	<u>p</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>	<u>p</u>

TITLE 22 SHORELINE MASTER PROGRAM

22.03 SHORELINE AREA DESIGNATIONS

<u>Squalicum 1</u>	p	x	p	c/x	p	x	x	x	p	p	p	p	p
<u>Squalicum 2 & 3</u>	p	x	p	c/x	p	x	x	x	p	p	p	p	p
<u>Squalicum 4</u>	p	x	x	c/x	x	x	x	x	p	x	p	p	p
<u>Squalicum 5</u>	p	x	p	c/x	p	x	x	x	p	p	p	p	p
<u>Squalicum 6 west 1/2</u>	c	x	p	c/x	p	c/x	x	x	p	x	p	p	p
<u>Squalicum 6 east 1/2</u>	c	x	p	c/x	p	c/x	x	x	p	x	p	p	p
<u>Squalicum 7</u>	c	x	p	c/x	p	c/x	x	x	p	x	p	p	p
<u>Squalicum 8</u>	c	x	p	c/x	p	c/x	x	x	p	x	p	p	p
<u>Squalicum 9-12</u>	p	x	p	c/x	p	x	x	x	p	x	p	p	p
<u>Lake Whatcom 4</u>	p	p	x	c/x	x	p	p	x	p	x	p	p	p
<u>Lake Whatcom 5</u>	p	x	x	c/x	x	p/x	p	x	p	p	p	p	p
<u>Lake Padden 1 & 3</u>	p	x	x	x	x	p/x	p/x	x	p	x	p	p	p

Note: Commercial agriculture and mining are not permitted uses within the City of Bellingham. Forest practice only allowed as Class IV.

Legend:

P = Permitted (SDP or Exemption)

C = Conditional Use Permit

X = Prohibited

/ = Water oriented / Non-water-oriented

5. Regulations

- a. Development within shorelines designated as Urban Conservancy shall result in no net loss of shoreline ecological functions.
- b. Critical Areas – For development within critical areas or their buffers that occur in the shoreline jurisdiction, the applicable provisions of this Program shall apply.
- c. Setbacks, Buffers and Height - Development shall be in accordance with the table in BMC 22.11.30 B, *Development Regulation Matrices*. The criteria for assigning a buffer width that is greater than the minimum standard are specified in BMC 22.08.10.B.2, *Shoreline Buffers*
- d. For shorelines where critical areas in addition to FWHCAs are present (for example, wetlands or frequently flooded areas) the most protective buffer set forth in this program shall apply.
- e. Uses within the Urban Conservancy designation shall also comply with the applicable requirements in BMC 22.08 and 22.09.
- f. Height in marine reaches 8, 9, 13-14, 16-17 and in freshwater reaches Chuckanut 1 and 4, Padden Creek 1, Lake Whatcom 4-5 and Lake Padden 1 and 3 shall not exceed 35 feet.
- g. Height in Whatcom 1, upstream of Holly Street, Whatcom 2-5, Squalicum 1 and Squalicum 2-5 (except for in reaches with single-family zoning) shall not exceed 3 stories within the first 100 feet of shoreline jurisdiction and shall not exceed 4 stories within the second 100 feet within shoreline jurisdiction.

- h. Height in Whatcom 1, between Holly Street and Roeder Avenue shall not exceed 35 feet.
- i. One bonus story shall be granted to those uses within the shorelines specified in g., above, if all required parking for subject non-water-oriented uses is located within any combination of the building footprint of the structure (under-building or underground) or within a shared parking facility (a shared surface parking facility is allowed to satisfy this requirement).
- j. Height for uses, when permitted, that are over or in-water shall not exceed 25 feet from the elevation of the Extreme High Tide Elevation (EHT).
- k. Non-water-oriented uses whether established as part of a shoreline mixed-use development or as a stand-alone non-water-oriented use shall provide public access and native vegetation management consistent with the requirements in BMC 22.08.90 *Public Access – .100, Shoreline Native Vegetation Management* AND shall implement a minimum of three objectives specifically approved by the City from the Restoration Plan (APPENDIX B, Section 4 and also within Table 1) per the policies and regulations within BMC 22.09.100, *Restoration and Conservation*.
- l. NOTE: When implementation of an objective from the Restoration Plan includes work within a critical area or its buffer, the design shall include involvement and review of applicable permitting agencies including at a minimum the Washington State Department of Fish and Wildlife, Department of Ecology, and the United States Army Corps of Engineers including consultation with affected tribes.
- m. Public access is not required for development within shorelines that are designated Urban Conservancy AND are zoned ‘Public.’
- n. For substantial development on private property on any of Chuckanut, Whatcom or Squalicum Creeks, a conservation easement shall be recorded with the Whatcom County Auditor across the required buffer area. Said conservation easement shall be recorded prior to issuance of building permits for the subject development.

C. SHORELINE RESIDENTIAL (RES)

1. Purpose – Protect and improve the water quality within the Lake Whatcom Reservoir and restore shoreline ecological functions while accommodating residential redevelopment and new development including appurtenant structures.

As of 2009, the TMDL Response Plan is the most current and up to date scientific information available to protect and improve the water quality of Lake Whatcom. This response plan includes elements of the 2010-2014 Work Plan established by the Inter-jurisdictional Coordinating Team (ICT) as well as the Recommended Management Action for Protection and Restoration of the Lake Whatcom Reservoir, prepared by the Lake Whatcom Reservoir Technical Review Task Force in May 2009. This plan should be implemented either

through future code revisions or in the development of future watershed protection programs. (10/5/2009 WS)

2. Citizens who live, recreate and do business within the Lake Whatcom Watershed should always be aware of the impacts that their behaviors and activities have on the reservoir. Individuals should also be aware that they have the ability to change their behaviors and activities in such a way that benefits the reservoir.
3. The Lake Whatcom Management Program (LWMP) is a guidance document available to citizens who live, recreate and do business within the Lake Whatcom Watershed. The LWMP was created by staff persons from the City of Bellingham, Whatcom County and Water District #10 and volunteers.
4. The LWMP was developed after the passage of a Joint Resolution in 1992 between the agencies listed above. It included 6 general goals and 21 more specific goals revolving around management of Lake Whatcom.
5. The main areas of focus were related to land use, stormwater management and watershed ownership. Six comprehensive goals were developed:
 - To recognize Lake Whatcom and its watershed as the major drinking-water reservoir for the County and develop public and private management principles for the lake and watershed consistent with a drinking water reservoir environment. Affirm this goal by establishing the name: Lake Whatcom Reservoir.
 - To protect, preserve and enhance water quality and manage water quantity to ensure long-term sustainable supplies for a variety of uses, with priority placed on domestic water supply. Management programs and actions will be made in recognition of existing contractual agreements and potential for review and renegotiation in light of these goals.
 - To prioritize protection over treatment in managing Lake Whatcom and its watersheds. Management actions shall reflect a long-term view of replacement or treatment costs.
 - To manage water quantity to sustain long-term efficient use of the water for beneficial uses within the county that are consistent with a drinking-water reservoir, and recognize the integral link with the Nooksack River and associated water resource concerns.
 - To ensure that opportunities for public comment and participation are provided in policy and management program development, and to promote public awareness and responsible individual actions.
 - To promote learning, research, and information opportunities which better our understanding of the watershed system, the impacts of activities, and the benefits and potentials of policies implemented.

In 1999, the LWMP was amended and adopted with a specific priority placed on program areas related to land use, stormwater management and watershed ownership to help achieve the comprehensive goals. A five-year work plan was created that included these program areas:

Watershed ownership	Stormwater management
Urbanization/land development	Community outreach
Data and information management	Fish/wildlife/forestry
Spill response/hazard material	Transportation
Utilities and waste management	Recreation

The Inter-jurisdictional Coordinating Team (ICT) manages the work plan that details all of the current and planned activities / programs that help implement the LWMP. The ICT has updated its recommendations for the 2010 - 2014 Lake Whatcom Work Plan. Each program area from above has a task, an action and a finished work product.

The work plan can be viewed at <http://lakewhatcom.wsu.edu> or on the City's website: <http://www.cob.org/pw/lw/index.htm>

6. Management Policies

- a. The majority of activity in the Shoreline Residential designation (Lake Whatcom) will be focused on redevelopment of and addition to existing homes, replacement of appurtenant structures (garages, sheds, decks) and minimization of single-family docks and bulkheads. These redevelopment activities should be managed in order to improve the ecological functions of the Lake Whatcom shoreline, especially the water quality and the near-shore environment.
- b. All impacts to ecological function and values should be fully mitigated with the mitigation sequencing specified in BMC 22.08.20, *Mitigation Sequencing*.
- c. Development should include measures to improve the ecological function of Lake Whatcom, treat and slow the amount of stormwater entering the lake, restore the near-shore aquatic areas to a naturalized area and provide new native riparian vegetation at the shoreline edge.
- d. Preservation of resources and critical areas should have priority over access, private and public recreation, replacement of existing structural shoreline stabilization and development objectives whenever a conflict exists.
- e. Alternatives to traditional impervious areas should be implemented to the maximum extent possible.
- f. Structurally engineered shoreline modifications and stabilization should be prohibited except in cases of emergency as defined herein.
- g. Multi-family residential and recreational developments should provide shoreline areas for joint use, and public access to the shoreline.
- h. Where contiguous lots are developed or platted with new single-family residences, or where multi-family residential developments occur, a single joint-use dock and common open spaces should be a priority.

- i. Establishment of a variety of new native vegetation within a required buffer to slow surface and ground water movement and for improvement of the near-shore function including habitat and natural resources should be a priority.
 - j. Development on portions of the Lake Whatcom shoreline that are designated as Shoreline Residential shall also comply with BMC 22.04.
7. Designated Reaches
- a. Lake Whatcom 2 – 3, 6 – 7
8. Permitted uses

Shoreline Residential – BMC 22.03.30.C.8

Use & Modification Table As further limited by zoning	Aquaculture	Boating Facilities	Dredging and Disposal	Industrial Development	In-water Structures	Piers, Floats, Pilings - Lake Whatcom	Landfill	Recreational Development	Residential Development	Restoration & Conservation	Roads, Railways, & Utilities	Stormwater Management Facilities
Lake Whatcom 2-3 & 6-7	C	X	C/X	X	X ¹	P	X	P/X	P	P	P	P

¹Single-family docks / floats are considered water dependent uses.

Note: Commercial agriculture and mining are not permitted uses within the City of Bellingham. Forest practice only allowed as Class IV.

Legend:

P = Permitted (SDP or Exemption)

C = Conditional Use Permit

X = Prohibited

/ = Water oriented / Non-water-oriented

9. Conditional uses
- a. Conditional Uses – Those conditional uses as allowed by the underlying zoning for the area.
10. Regulations
- a. Development within shorelines designated as Shoreline Residential shall not result in a net loss of shoreline ecological functions.
 - b. Critical Areas – For development within critical areas or their buffers that occur in shoreline jurisdiction, the applicable provisions of this Program shall apply.
 - c. Setbacks and Buffers - Development within shoreline reaches designated as Shoreline Residential shall be set back from the field-determined ordinary high water mark (approximately elevation 314 feet above sea level) of the shoreline in accordance with the table in BMC 22.11.30.C, *Development Regulation Matrices*
 - d. For shorelines where critical areas other than Fish and Wildlife Habitat Conservation Areas are present, the most protective buffer set forth in this program shall apply.

- e. Development shall fully comply with applicable requirements in BMC 16.80 (Lake Whatcom Reservoir Regulatory Chapter) and BMC 15.42.
- f. If BMC 16.80 does not apply to residential development within the Shoreline Residential designation, said development shall still comply with the standards in BMC 22.08.100 *Shoreline Native Vegetation Management*.
- g. An affidavit shall be provided that specifies that the required native vegetation has been installed and shall be subject to inspection and verification by City staff. If the required vegetation cannot be installed due to the season and likelihood of survival, the applicant shall guarantee in writing that the required vegetation shall be installed within one year of permit issuance, or otherwise be in violation of this Program.
- h. Shoreline modification / bank stabilization, piers, docks and floats may be allowed subject to the requirements within BMC 22.08 and 22.09.
- i. Appurtenant structures are allowed and shall be subject to the same buffer requirement as specified above in Ch. 22.30.C.10.c and the requirements within BMC 16.80.
- j. Height, as defined, shall not exceed 35 feet.
- k. New residential docks, when part of a development that serves 2 or more units (single-family or multi-family) shall be joint-use docks.
- l. Public access is not required in a Shoreline Residential designation for development of an individual single-family building site.
- m. Septic systems shall not be allowed within Shoreline Residential shorelines unless determined to be required per the Public Works Department.

D. URBAN MARITIME (UM)

1. Purpose – Preserve areas for water-oriented public, commercial, transportation, and industrial uses. Urban Maritime shorelines are a finite resource and should be utilized for these purposes while protecting existing ecological functions, restoring previously degraded areas and providing the general public with maximum access opportunities. Development in Urban Maritime shoreline areas should be managed such that it protects existing ecological functions.
2. Management Policies
 - a. Where navigability is adjacent to upland areas, priority should be given to water-dependent uses. Water-related and water-enjoyment uses should be given second and third priorities respectively.
 - b. Protection and restoration of critical areas including pocket estuaries and beaches should be implemented as development occurs.
 - c. Non-water-oriented uses should not be allowed unless they are a supportive use to a water-oriented use or are established simultaneous,

planned and integrated with a water-oriented use. Non-water-oriented uses proposed within existing buildings should be allowed.

- d. Non-water-oriented uses may be allowed in limited situations when they do not conflict with or limit opportunities for existing or future water-oriented uses; are parcels, lots or tracts where there is not direct access to the shoreline by virtue of an improved public right-of-way or significant property under different ownership; are allowed via a conditional use to be conducted on a temporary basis.
- e. Regulations should be established that achieve no net loss of shoreline ecological function as a result of new development. Where applicable, new development should include environmental cleanup and restoration of the shoreline to comply with applicable state and federal laws.
- f. Visual and physical public access should be required as master plans in Urban Maritime shoreline areas are developed. Planning for the acquisition of land for permanent public access to the water in the Urban Maritime environment should be a priority. Where desirable and possible, industrial and commercial facilities should be designed to facilitate pedestrian waterfront activities.
- g. All impacts to ecological function and values should be fully mitigated with the mitigation sequencing specified in BMC 22.08.20 *Mitigation Sequencing*.
- h. Aesthetic considerations should be actively promoted by means such as appropriate development siting and orientation, parking location, height and bulk limitations, floor area ratios, screening and architectural standards, planned unit developments, sign control regulations, and creation, enhancement and preservation of native vegetation areas.
- i. Existing non-water-oriented commercial and industrial uses are not required to be relocated to non-waterfront property but should be if opportunities to do so become available or are feasible.
- j. Development and restoration planning and public access should be consistent with the Waterfront District Master Plan, upon adoption; the Bellingham Bay Demonstration Pilot Project Comprehensive Strategy; and the Opportunities and Ideas for Habitat Restoration and Water Access on Bellingham Bay (developed by the WFG) as development occurs unless there is a more practical alternative that achieves the same objectives.
- k. To make maximum use of the available shoreline resources and to accommodate future water-oriented uses, substandard, degraded, or obsolete urban shoreline areas should be, where feasible, redeveloped, renewed and shoreline ecological function restored.
- l. Full utilization of existing urban and previously developed areas should be achieved before further expansion is allowed.

- m. Development within waters adjacent to the Urban Maritime designation shall comply with BMC 22.04.
- 3. Urban Maritime reaches are comprised of three different sub-areas as follows:
 - a. Urban Maritime water-oriented uses as shown in BMC 22.11, Marine Shoreline Reaches 1-8 map and Shoreline Reaches 9-21 map; and
 - b. Urban Maritime shoreline mixed uses as shown in BMC 22.11, Marine Shoreline Reaches 1-8 map and Shoreline Reaches 9-21 map.
 - c. Urban Maritime Recreational Uses – as shown in BMC 22.11,10 Marine Shoreline Reaches 1-8 map – a portion of Marine Reach 4, i.e. head of the I and J waterway.
- 4. Uses

Urban Maritime – BMC 22.03.30.D.4

Use & Modification Table As further limited by zoning	<u>Aquaculture</u>	<u>Boating Facilities</u>	<u>Commercial Development</u>	<u>Dredging and Disposal</u>	<u>Industrial Development</u>	<u>In-water Structures</u>	<u>Piers, Floats, Pilings</u>	<u>Landfill</u>	<u>Recreational Development</u>	<u>Residential Development</u>	<u>Restoration & Conservation</u>	<u>Roads, Railways, & Utilities</u>	<u>Stormwater Management Facilities</u>
<u>Marine 4 - Water-oriented</u>	p	p	p	p/x	p	p/x	p ¹ /x	x	p/x	x	p	p	p
<u>Marine 4 - Shoreline mixed-use</u>	p	p	p	p/x	p	p/x	p ¹ /x	x	p/x	p ²	p	p	p
<u>Marine 4 - Recreational</u>	p	p	p	p/x	p	p/x	p ¹ /x	x	p/x	x	p	p	p
<u>Marine 11 - Water-oriented</u>	p	p	p	p/x	p	p/x	p ¹ /x	x	p/x	x	p	p	p

¹ Public Water-Enjoyment uses in/over water require CUP (Except on Lake Whatcom & Lake Padden)

² Only permitted when developed simultaneous, planned and integrated with a water oriented use.

NOTE: Non water-oriented uses, established in existing buildings may be permitted provided, residential units shall not be established on the ground floor.

Note: Commercial agriculture and mining are not permitted uses within the City of Bellingham. Forest practice only allowed as Class IV.

Legend:

P = Permitted (SDP or Exemption)

C = Conditional Use Permit

X = Prohibited

/ = Water oriented / Non-water-oriented

- 5. Regulations
 - a. Development within Urban Maritime shorelines shall not result in a net loss of shoreline ecological functions.
 - b. Critical Areas – For development within critical areas or their buffers that occur in shoreline jurisdiction, the applicable provisions of this Program shall apply.
 - c. Development shall comply with all applicable requirements in BMC 22.08, 22.09.

- d. Development that is permitted water-ward of the elevation of the mean lower low tide shall be consistent with the applicable requirements in BMC 22.04, Shorelines of Statewide Significance.
- e. Setbacks, Buffers and Height - Development shall be in accordance with the table in BMC 22.11.30. D, *Development Regulation Matrices* .
- f. Development within the recreational sub-area shall comply with the requirements in section 22.03.30.F. 7-9, *Shoreline Environmental Designations*.
- g. For shorelines where critical areas other than Fish and Wildlife Habitat Conservation Areas are present, the most protective buffer set forth in this Program shall apply.

E. AQUATIC (A)

- 1. Purpose – Protect, restore and manage the unique characteristics of the aquatic environment.
- 2. Management Policies
 - a. Aquatic uses should not adversely impact critical saltwater and freshwater habitats or their connectivity for salmonids and other aquatic and terrestrial species that migrate within the near-shore environment.
 - b. New aquatic uses should only be allowed for water-dependent uses, public access or ecological restoration and enhancement.
 - c. All developments and uses within navigable waters or their bedlands should be located and designed to minimize interference with surface navigation, to consider impacts to public views, and to allow for the safe unobstructed passage of aquatic species and wildlife, particularly those species using those areas for rearing and/or migration.
 - d. Aquatic uses that adversely impact the ecological functions of critical saltwater and freshwater habitats should not be allowed except where necessary to achieve the objectives of RCW 90.58.020. If aquatic uses are permitted under this objective, their impacts should be mitigated per the standards in BMC 22.08.20 *Mitigation Sequencing* necessary to assure no net loss of ecological function.
 - e. Aquatic uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrologic conditions including sediment transport and benthic drift patterns.
 - f. Dredging and dredge spoils disposal operations should be accomplished in such a manner that results in no net loss of ecological function and should restore, enhance and/or improve ecological function wherever appropriate.
 - g. Aquatic uses should not prevent public access to the shorelines from uplands or from the water to uplands.

- h. Recreational uses within aquatic areas should not conflict with water-dependent uses.
 - i. Abandoned and neglected structures that cause adverse visual or habitat impacts or are a hazard to public health, safety, and welfare should be removed or restored to a usable condition.
 - j. Where the state owns abutting upland, priority will be given to joint development of the uplands and second class tidelands for public use.
3. Designated water-bodies
- a. Areas waterward of the OHWM for all shorelines within the City including wetlands and Bellingham Bay out to the jurisdictional limits of the City.
4. Permitted uses

Aquatic – BMC 22.03.30.E.4

Use & Modification Table As further limited by zoning	<u>Aquaculture</u>	<u>Boating Facilities</u>	<u>Commercial Development</u>	<u>Dredging and Disposal</u>	<u>Industrial Development</u>	<u>In-water Structures</u>	<u>Piers, Floats, Pilings</u>	<u>Recreational Development</u>	<u>Residential Development</u>	<u>Restoration & Conservation</u>	<u>Roads, Railways, & Utilities</u>	<u>Stormwater Management Facilities</u>
<u>Waterward of OHWM¹ & ³</u>	<u>P</u>	<u>P</u>	<u>X</u>	<u>C/X</u>	<u>X</u>	<u>P</u>	<u>P²</u>	<u>P/X</u>	<u>X</u>	<u>P</u>	<u>C</u>	<u>C</u>

¹ Water-dependent use only, as further limited by the use and development regulations of the abutting upland shoreline designation.
² Public Water-Enjoyment uses in/over water require CUP (Except on Lake Whatcom & Lake Padden)
³ Conditional use permit required for water-dependent aquatic uses in freshwater streams.

Note: Commercial agriculture and mining are not permitted uses within the City of Bellingham. Forest practice only allowed as Class IV.

Legend:

P = Permitted (SDP or Exemption)

C = Conditional Use Permit

X = Prohibited

/ = Water oriented / Non-water-oriented

5. Regulations

- a. For development and uses within critical areas or their buffers that occur in the shoreline jurisdiction the applicable provisions of this program shall apply.
- b. When aquatic development occurs within shorelines of statewide significance, the policies in BMC 22.04 shall also apply.
- c. Aquatic uses shall not result in a net loss of shoreline ecological function.
- d. Development shall be consistent with the development regulation matrix in BMC 22.11.30 *Development Regulation Matrices E*.
- e. Aquatic uses shall not disrupt the hydrologic function of the water body in terms of current, wave action or tidal influence.

- f. Where the state owns aquatic areas / bedlands that are not managed by a local entity such as the City or Port of Bellingham, long-term or permanent mooring and anchorage shall be prohibited in those areas to minimize potential impacts on existing aquatic ecological function, navigation, view impacts, and other water-dependent uses. Vessels and floating structures that are anchored in the same general location long-term (greater than consecutive 30 days) may be considered substantial development requiring a shoreline permit and shall also require a shoreline conditional use permit. Such long-term or permanent anchorage shall also comply with State Dept. of Natural Resource requirements.
- g. Aquatic uses shall not interfere with water-dependent uses or compromise the public's ability to safely enjoy access to the shoreline and aquatic areas from uplands and from the water.
- h. When dredge disposal of contaminated materials occurs within Aquatic areas the standards within WAC 173-204 shall apply.

F. WATERFRONT DISTRICT

The City and Port of Bellingham are currently involved in a master planning effort for the Waterfront District Special Development Area (NWSDA). The intent of the Waterfront District shoreline designation is to implement 'Special Area Planning' and to facilitate the current Waterfront District master planning, incorporate public input and comply with the State of Washington Shoreline Management Act (RCW 90.58) and the Shoreline Guidelines (WAC 173-26). The Shoreline Guidelines describe 'Special Area Planning' as a regulatory tool which allows local governments to address shoreline management issues on complicated sites where a range of issues must be addressed. See Shoreline Guidelines, WAC 173-26-201(3)(d)(ix).

1. Purpose – To plan for, protect and implement restoration of the shoreline ecological function, reserve areas for water-dependent and water-related uses, maximize public access to the shoreline and accommodate shoreline mixed uses and non-water-oriented uses where appropriate.
2. Management Policies (Adapted from special meeting on March 7, 2006 where 2-08-06 version of Waterfront District Implementation strategies and WFG Guiding Principles for City Center sub-area were approved by City Council / Port Commission.)
 - a. The City should coordinate with state, federal and local agencies, organizations, and institutions, including the Lummi Nation and Nooksack Tribe, to improve the ecological function of the shorelines.
 - b. Opportunities for cooperative projects and joint funding for shoreline restoration, habitat enhancement, environmental remediation and public access improvements should be identified.
 - c. Where feasible, hardened shoreline along the Whatcom Waterway, ASB lagoon and other shores should be removed or reduced, and the shoreline

- should be rehabilitated and enhanced for improved habitat and public access.
- d. Sites identified in the Waterfront Futures Group “Opportunities and Ideas for Habitat Restoration and Water Access on Urban Bellingham Bay” and other plans and studies should be evaluated for designation as public access and shoreline restoration sites in the Waterfront District Master Plan and City of Bellingham Shoreline Master Program.
 - e. Appropriate locations for water-dependent and water-related uses should be identified and reserved. Appropriate design features and transitional areas to buffer uses which produce noise, glare or odors from other adjacent uses should be developed and implemented, where appropriate.
 - f. Appropriate sites for water-related uses and ancillary activities to support commercial fishing, recreational boating and maritime industries, including boat building and repair to preserve the nautical history of our community should be identified and reserved.
 - g. The Waterfront District site should be redeveloped with a mix of uses including administrative, professional, institutional, housing, retail and water enjoyment development, services, educational and cultural facilities and water-dependent and water-related industrial uses.
 - h. Pocket beaches at the head of the Whatcom Waterway such as the Central Avenue pocket beach and the Roeder Avenue mudflats, and the I & J Waterway, the foot of Cornwall Avenue and the foot of C and G Streets, and adjacent to the historic GP log pond should be reserved for preservation and restoration / enhancement as habitat and public access points.
 - i. An interconnected system of waterfront access and view points, public parks, open spaces, pedestrian walkways and bicycle routes which will be the backbone of the Waterfront District Special Development Area should be developed.
 - j. The majority of the water’s edge should be accessible via non-vehicular means of transportation, including pedestrian walkways, bicycle trails, motorized and non-motorized boat access, and transient moorage, and should be connected to a network of parks, trails and transit connections.
 - k. Public access to areas used for water-dependent industry or government agency uses or into critical areas where it would conflict with public health or safety, habitat protection or national security should be restricted, limited or controlled through appropriate design.
 - l. Parking should be located under buildings, within parking structures located away from or opposite the shoreline from the development unless associated with a water-dependent use or no other feasible alternative exists. Subject to the Waterfront District Master Plan design and phasing, surface parking may be developed as an interim use on areas planned for

- future redevelopment, enabling its evolution over time into a denser environment.
- m. Streets should be aligned to facilitate circulation and accommodate future land uses, and building heights should be limited to preserve water views from street ends and other key public view points.
 - n. Bio-swales, rain gardens and other appropriate Low Impact Development (LID) techniques should be implemented to manage stormwater.
 - o. The Port and the City should work cooperatively to implement processes to ensure building permit predictability, consistency, and expediency within the Waterfront District Special Development Area.
 - p. Shoreline permits granted for development proposals within the Waterfront District Special Development Area should include adequate expiration timelines and phasing schedules in order to be consistent with the objectives in o., above.
3. Reaches designated Waterfront District
- a. Marine 5 – 7 (Marine Shoreline Reaches 1-8 map as shown in BMC 22.11.10 *Shoreline Designation Maps*) and are comprised of three sub-areas:
 - i. Waterfront District water-oriented uses;
 - ii. Waterfront District shoreline mixed use; and
 - iii. Waterfront District recreational uses.
4. Uses: See the Development Regulation Matrix; Waterfront District in BMC 22.11.30.F, *Development Regulation Matrices* .
- a. Permitted uses within the Waterfront District Water-Oriented Uses sub-areas:
 - i. Water-dependent uses;
 - ii. Water-related uses;
 - iii. Water-enjoyment uses;
 - iv. Restoration and enhancement;
 - v. Uses and activities specified in BMC 22.08.10.B.4, *Shoreline Buffers*; and
 - vi. Non-water-oriented accessory uses that directly support a permitted use.
 - vii. Preservation or adaptive reuse of historic structures.

- b. Permitted uses within the Waterfront District Shoreline Mixed Use sub-areas:
 - i. Those uses specified in 4.a. i - vii, above; and
 - ii. Non-water-oriented uses including residential uses within a shoreline mixed-use structure subject to the requirements in BMC 22.03.30. *F.6, Shoreline Environmental Designations* .
 - iii. Any water-oriented or non-water-oriented use that includes preservation and / or adaptive reuse of historic structures.
- c. Permitted uses within the Waterfront District Recreational Uses sub-area:
 - i. Those uses specified in 4.a.i – vii , and above; and
 - ii. Interim construction staging and environmental remediation uses subject to Section 22..08.140.
- d. Conditional uses within all of the Waterfront District shoreline:
 - i. Public water-enjoyment uses over or in-water;
 - ii. Change from an existing non-water-oriented use to a different non-water-oriented use; and
 - iii. Temporary stand-alone non-water-oriented uses may operate or be staged within the two existing warehouses and/or land area within the shoreline jurisdiction at the Bellingham Shipping Terminal and within existing structures only between the historic GP log pond and Roeder Avenue subject to the applicable requirements in BMC 22.06.50 *Conditional Uses*.
- 5. Development regulations for the Waterfront District Water-Oriented Uses sub-area:
 - a. Development shall result in no net loss of shoreline ecological functions.
 - b. Development shall comply with all applicable requirements in BMC 22.04, 22.08 and 22.09.
 - c. For development within critical areas or their buffers that occur in shoreline jurisdiction, the appropriate provisions of this program shall apply.
 - d. For shorelines where critical areas other than Fish and Wildlife Habitat Conservation Areas are present, the most protective buffer set forth in this program shall apply.

- e. Setbacks, Buffers and Height - Development shall be in accordance with the table in BMC 22.11.30.F, *Development Regulation Matrices* and f., below, and as specified in subsection 7, below.
 - f. Water-oriented uses shall not exceed a height of 35 feet except that, when a water-oriented use greater than 35 feet in height but not more than 50 feet in height is proposed, a view analysis shall be conducted in order to prevent obstruction of identified public view corridors; Provided, existing building heights may be modified if the current maximum height is not exceeded. Heights greater than 50 feet, or greater than the existing maximum height as applied to existing buildings, shall be subject to the requirements for a variance in BMC 22.06.30 *Shoreline Substantial Development*.
 - g. Non-water-oriented accessory uses as specified in 4.a.vi., above, shall not exceed the height of the permitted use.
 - h. Development shall provide public access subject to the public access requirements and criteria in BMC 22.08.90 *Public Access*.
 - i. Stand-alone water-enjoyment uses shall be designed to be oriented towards the shoreline such that the general public has the opportunity to enjoy the aesthetics of a shoreline location and have physical and/or visual access to the shoreline.
6. Regulations within the Waterfront District Mixed Use sub-area are as follows:
- a. Development shall result in no net loss of shoreline ecological functions.
 - b. Development shall comply with all applicable requirements in BMC 22.04, 22.08 and 22.09.
 - c. For development within critical areas or their buffers that occur in shoreline jurisdiction, the appropriate provisions of this program shall apply.
 - d. For shorelines where critical areas other than Fish and Wildlife Habitat Conservation Areas are present, the most protective buffer set forth in this program shall apply.
 - e. Setbacks, Buffers and Height - Development shall be in accordance with the table in BMC 22.11.30.F, *Development Regulation Matrices* and f., below and as specified in subsection 8, below.
 - f. The maximum setbacks and buffers within the Waterfront District shoreline mixed-use sub-area may be reduced down to the minimum setbacks and buffers (both as specified in BMC 22.11.30.F, *Development Regulation Matrices*) as conditioned upon the adoption of a Comprehensive Plan amendment for a Waterfront District Master Plan and Development Agreement (WDMPDA) for the entire Waterfront District Special Development Area or, upon the adoption of a master plan for a portion of land area within the Waterfront District; Provided, said draft WDMPDA shall be reviewed by Ecology's Bellingham Field Office for

consistency with SMA Policy and this SMP at the time the WDMPPA is presented to the Bellingham Planning Commission. Said consistency review (not a SMP amendment) shall be performed within sixty (60) days of receipt by Ecology's Bellingham Field Office and also prior to final adoption of the WDMPPA by the City.

If a master plan – as specified above – is not adopted the maximum setbacks and buffers within table 22.11.30 F., *Shoreline Environmental Designations* for the mixed- use sub-area shall apply.

- g. The total height of a shoreline mixed-use structure (one that includes water-oriented uses and non-water-oriented uses) shall not exceed 35 feet. Additional height up to 50-feet may be granted if all required parking for the subject non-water-oriented uses (with the exception of loading / unloading areas) is provided within the footprint of the subject structure and/or within a shared parking facility (such as a surface lot or parking structure) AND the additional height shall be subject to a view analysis. Said view analysis shall be conducted in order to prevent obstruction of identified public view corridors. Building height greater than 50-feet shall be subject to a variance.
- h. Non-water-oriented uses within a shoreline mixed-use structure, as specified in 4.b.ii, above, shall be established or developed concurrently with a water-oriented use and shall provide public access and habitat restoration between the subject development and the adjacent shoreline subject to the requirements in i - l, below.
- i. When a shoreline mixed-use development is proposed, public access, when required, shall be provided between the subject development and the adjacent shoreline concurrently and shall be consistent with an adopted master plan and/or public access plan. In cases where said public access cannot be provided due to seasonal constraints, including fish windows, the timing with other planned / ongoing soil remediation or implementation of a habitat restoration project, said public access shall be secured with a financial surety totaling 150% of the cost of the required access or some other acceptable surety as may be specified by the Planning Department Director or within the Waterfront District Development Agreement, upon adoption.
- j. In the absence of a master plan or public access plan as specified in g., above, required public access shall be designed and configured on a site-by-site basis consistent with BMC 22.08.90 *Public Access*. Said plan shall be reviewed and approved by the Planning, Environmental Resources and the Parks and Recreation Departments.
- k. When a shoreline mixed-use development is proposed, habitat restoration, as required in f., above, shall be provided per an approved habitat restoration plan. In absence of said habitat restoration plan, the subject development shall incorporate a minimum of three objectives from the Restoration Plan (Section 4, APPENDIX B). In both cases, said

restoration plan shall be consistent with BMC 22.09.100 *Restoration and Conservation* and shall be reviewed and approved by the Environmental Resources Division and the Planning Department.

- l. Said required habitat restoration shall be completed prior to occupancy of the subject uses. In cases where the required habitat restoration cannot be provided due to seasonal constraints, including fish windows, or the timing with other planned / ongoing soil remediation or implementation of public access projects, said habitat restoration shall be secured with a financial surety totaling 150% of the required restoration project or some other acceptable surety as may be specified by the Planning Department Director or within the Waterfront District Development Agreement, upon adoption.
 - m. Non-water-oriented uses shall not occupy the portion of the ground floor of a mixed-use structure that fronts on or is adjacent to the shoreline. (Only parking in the rear of the ground floor of a shoreline mixed-use structure is permitted.)
 - n. In no case may residential uses within a shoreline mixed-use structure occupy the ground floor.
7. Development regulations for the Waterfront District Recreational use sub-area:
- a. Development shall result in no net loss of shoreline ecological functions.
 - b. Development shall comply with all applicable requirements in BMC 22.03, 22.08 and 22.09.
 - c. Setbacks, buffers and height – development shall be in accordance with the table in BMC 22.11.30.F, *Development Regulation Matrices* and as specified in subsection 8, below.
 - d. Water-oriented uses shall not exceed a height of 25-feet. Heights greater than 25-feet shall be subject to the requirements for a variance in BMC 22.06.30 *Shoreline Substantial Development*.
 - e. Non-water-oriented access uses as specified in subsection 4.a.vi, above, shall not exceed the height of the permitted use.
 - f. Development shall provide public access subject to the requirements in section 22.08.90 *Public Access*.
 - g. Stand alone water-enjoyment uses shall be designed to be oriented towards the shoreline such that the general public has the opportunity to enjoy the aesthetics of a shoreline location and have physical and/or visual access to the shoreline.
 - h. Interim construction staging and environmental remediation uses shall be discontinued at the time the property is converted to park use. (10-19-2009 WS)
8. Within the Waterfront District shoreline mixed-use and recreational use sub-areas, a buffer shall not be required for water-dependent and water-related uses

where there is an existing sheet pile, bulkhead or other vertical (90-degree) structure in-water or at the OHWM. The required buffer shall not apply until such time that said feature(s) is removed permanently. Replacement of said structure(s) for a permitted use would not trigger the buffer requirement.

9. Allowed uses/activities within a required buffer area are as follows:
 - a. Those portions of water dependent and water-related issues uses that require direct access to the water (piers and gangways, boat launches, loading / unloading areas, view overlooks / platforms etc.); and
 - b. Those uses and activities as specified in BMC 22.08.10. B.4, *Shoreline Buffers*.

22.04 SHORELINES OF STATEWIDE SIGNIFICANCE

22.04.10 ADOPTION OF POLICY

- A. The following management and administrative policies are hereby adopted for all shorelines of statewide significance in Bellingham, as defined in RCW 90.58.030(2) (e) and identified in this section and as shown in BMC 22.11.
- B. This Master Program gives preference in the following order to uses that:
 - 1. Recognize and protect the state-wide interest over local interest;
 - 2. Preserve the natural character of the shoreline;
 - 3. Result in long-term over short-term benefit;
 - 4. Protect the resources and ecology of the shoreline;
 - 5. Increase public access to publicly owned areas of the shoreline;
 - 6. Increase recreational opportunities for the public in the shoreline; and
 - 7. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.
- C. Conversely, uses that are not generally consistent with these policies should not be permitted on such shorelines.

22.04.20 DESIGNATION

The waters of Bellingham Bay below the elevation of Extreme Low Tide r (ELT) including the waters of those pocket estuaries identified on the Marine Shoreline Maps in BMC 22.11 AND the waters of Lake Whatcom below OHWM and those shorelands associated with Lake Whatcom are designated as shorelines of statewide significance (SSWS) per RCW 90.58.030(2)(e). The Shoreline Management Act states "the long-term interests of all the people shall be paramount in the management of shorelines of statewide significance."

22.04.30 GENERAL POLICIES

- A. Statewide Interest. The statewide interest should be recognized and protected over the local interest in shorelines of statewide significance. To recognize and protect statewide interest over local interest, the City shall consult with applicable state agencies, affected Indian tribes, and statewide interest groups and consider their recommendations in preparing shoreline Master Program provisions. The City shall also recognize and take into account state agencies' policies, programs, and recommendations in developing use regulations. For example, if an anadromous fish species is affected, the Washington State Departments of Fish and Wildlife and Ecology and the governor's salmon recovery office, as well as affected Indian tribes, should, at a minimum, be consulted.
 - 1. For Bellingham Bay the resources that are of statewide interest include but are not limited to:
 - a. Anadromous fisheries, forage fish spawning areas, eelgrass and kelp beds,

- marine mammal, avian, and other marine biota habitat, and the city's four estuarine systems including pocket estuaries;
 - b. Public access to the shoreline via a public park and open space system;
 - c. Recreation opportunities via boating, marinas, visitor moorage, and proximity to marine attractions (San Juan Islands, Strait of Juan de Fuca, Georgia Strait); and
 - d. Deep draft moorage available for the Bellingham Shipping Terminal, the Alaska State Highway Ferry system and the United States Coast Guard.
2. For Lake Whatcom the resources that are of statewide interest include but may not be limited to:
- a. Cutthroat and Kokanee fisheries, and wildlife;
 - b. Public access via a public park and open space system; and
 - c. Recreational boating, swimming and fishing
 - d. Regional water supply.
- B. Preserving Resources for Future Generations. The natural character of shorelines of statewide significance should be preserved. The City shall prepare Master Program provisions on the basis of preserving the shorelines for future generations. For example, actions that would convert resources into irreversible uses or detrimentally alter natural conditions characteristic of shorelines of statewide significance should be severely limited. Where natural resources of statewide importance are being diminished over time, master programs shall include provisions to contribute to the restoration of those resources.
1. Preserving resources for future generations within Bellingham Bay includes:
- a. Restoring shorelines and estuaries so that natural processes may be reintroduced;
 - b. Reintroducing natural processes to improve habitat structure which results in sustainable habitat functions; and
 - c. Remediation of contaminated sediments.
2. Preserving resources for future generations within Lake Whatcom includes:
- a. Protecting and improving the water quality of the regional drinking water reservoir;
 - b. Restoring the shoreline itself to a more natural condition; and
 - c. Re-establishing native vegetation at the shoreline edge.
- C. Priority Uses. Uses of shorelines of statewide significance should result in long-term benefits to the people of the state. Shoreline environment designation policies, boundaries, and use provisions should give preference to those uses described in RCW 90.58.020 (1) through (7). More specifically:

1. Identify the extent and importance of ecological resources of statewide importance and potential impacts to those resources, both inside and outside the City's geographic jurisdiction.

In 2004, the City conducted a Shoreline Characterization that has identified ecological resources within Bellingham Bay and Lake Whatcom.

2. Preserve sufficient shorelands and submerged lands to accommodate current and projected demand for economic resources of statewide importance, such as commercial shellfish beds and navigable harbors. Base projections on statewide or regional analyses, requirements for essential public facilities, and comment from related industry associations, affected Indian tribes, and state agencies.

This analysis has been conducted and the result is the shoreline designations and allowed uses specified in BMC 22.03.

3. Base public access and recreation requirements on demand projections that take into account the activities of state agencies and the interests of the citizens of the state to visit public shorelines with special scenic qualities or cultural or recreational opportunities.

City of Bellingham Park, Recreation and Open Space Plan (2005) and Port of Bellingham Comprehensive Scheme of Harbor Improvements include these demand projections.

D. Resources of Statewide Importance. Establish development standards that:

1. Ensure the long-term protection of ecological resources of statewide importance, such as anadromous fish habitats, forage fish spawning and rearing areas, shellfish beds, and unique environments. Standards shall consider incremental and cumulative impacts of permitted development and include provisions to insure no net loss of shoreline ecosystems and ecosystem-wide processes;
2. Provide for the shoreline needs of water-oriented uses and other shoreline economic resources of statewide importance; and
3. Provide for the right of the public to use, access, and enjoy public shoreline resources of statewide importance.

E. Comprehensive plan consistency. Assure that other local comprehensive plan provisions are consistent with and support as a high priority the policies for shorelines of statewide significance. Specifically, shoreline master programs should include policies that incorporate the priorities and optimum implementation directives of Chapter 90.58 RCW into comprehensive plan provisions and implementing development regulations.

22.05 APPLICABILITY, EXEMPTIONS, RELATIONSHIP TO OTHER REGULATIONS AND NONCONFORMITY

22.05.10 APPLICABILITY

- A. All development and use of shorelines of the state shall be carried out consistent with this Program and the policy of the Act as required by RCW 90.58.140(1), whether or not a shoreline permit as defined in BMC 22.06 is required for such development.
- B. The provisions of this Program shall apply to all shorelines of the state, all land uses, development activity, and all structures and facilities in the City.
- C. This Program shall apply to every person, partnership, firm, corporation, group, governmental agency, or other entity that owns, leases, or administers land within the City.
- D. No person, company, agency, or applicant shall alter a shoreline except as consistent with the purposes and requirements of this Program.
- E. If development is exempt per the criteria in BMC 22.05.20 *Exemptions*, the provisions, development and performance standards within this Program shall apply.
- F. This Program is to be administered with flexibility and attention to site-specific characteristics in the context of the watershed or other relevant ecosystem unit. It is not the intent of this Program to make a parcel of property unusable by denying its owner all reasonable economic use of the property except in extremely limited or extraordinary circumstances that are determined to be not in the public interest. It is not intended to prevent the provision of public facilities and services necessary to support existing and planned development for/by the community.
- G. As recognized by RCW 90.58.350, the provisions of this Master Program shall not apply to shorelands (uplands within shoreline jurisdiction) held in trust by the United States or by Indian Nations/Tribes.

22.05.20 EXEMPTIONS

- A. Application and Interpretation of Exemptions
 - 1. Exemptions from a shoreline substantial development permit and process are allowed but are still subject to compliance with the requirements, thresholds and performance standards of this Program (also found in WAC 173-27-040).
 - 2. An exemption from the substantial development permit process is not an exemption from compliance with the State Shoreline Management Act or this Master Program, nor from any other regulatory requirements.
 - 3. 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 this Master Program or is

an unlisted 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.

4. Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemptions from the substantial development permit process.
5. The burden of proof that a development or use is exempt is on the applicant.
6. 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.
7. The Planning and Community Development Department has the authority to condition said exemptions as necessary to assure compliance with the shoreline goals and use policies of this Program.

B. Exempt Developments

1. The following activities shall be considered exempt from the requirement to obtain a shoreline substantial development permit:
 - a. Any development of which the total cost or fair market value, whichever is higher, does not exceed six thousand four hundred sixteen dollars (\$6,416), as adjusted by the state Office of Fiscal Management every five years, if such development does not materially interfere with the normal public use of the water or shorelines of the state. For the purpose 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;
 - b. 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 causes substantial adverse effects to the shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environment;

- c. 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 cubic yard of fill per one 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 the 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 bioengineering erosion control projects may be considered a normal protective bulkhead when any structural elements are consistent with the above requirements and when the Department of Fish and Wildlife has approved the project;
- d. 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 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 which would have been required, absent an emergency, pursuant to Chapter 90.58 RCW, WAC 173-27 or this Program, obtained. All emergency construction shall be consistent with the policies of 90.58 RCW 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;
- e. Construction and practices normal or necessary for farming, irrigation, and ranching activities, including agricultural service roads and utilities, on shorelands, 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, 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;
- f. Construction or modification, by or under the authority of the Coast Guard or a designated port management authority, of navigational aids such as channel markers and anchor buoys;
 - g. Construction on shorelands by an owner, lessee, or contract purchaser of a single-family residence for their own use or for the use of their family, which residence does not exceed a height of 35 feet above average grade level and which meets all City requirements. "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 as defined in BMC 23.110.A;
 - h. Construction of a dock, including a community dock, designed for pleasure craft only, for the private non-commercial use of the owner, lessee, or contract purchaser of a single-family and multi-family residences. A dock is a landing and moorage facility for watercraft and does not include recreational decks, storage facilities or other appurtenances. The private dock exemption applies if either:
 - i. In salt water, the fair market value of the dock does not exceed \$2,500; or
 - ii. In fresh waters the fair market value of the dock does not exceed ten thousand dollars (\$10,000), but if subsequent construction having a fair market value exceeding two thousand five hundred dollars (\$2,500) occurs within five years of the completion of the prior construction, the subsequent construction shall be considered a substantial development for the purpose of this Title. For the purpose of this section salt water shall include the tidally influenced marine and estuarine water areas of the state including the Strait of Georgia, local marine waters and all associated bays, inlets and estuaries;
 - i. Operation, maintenance, or construction of canals, waterways, drains, reservoirs, or other facilities that now exist or are hereafter created or developed as a part of an irrigation system for the primary purpose of making use of system waters, including return flow and artificially stored ground water for the irrigation of lands;
 - j. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with normal public use of the surface of the water;
 - k. Operation and maintenance of any system of dikes, ditches, drains, or other facilities existing on June 4, 1975 which were created, developed or utilized, primarily as a part of an agricultural drainage or diking system;
 - l. Any project with a certification from the governor pursuant to Chapter 80.50 RCW;

- m. Site exploration and investigation activities that are prerequisite to preparation of an application for development authorization under this Program, if:
 - i. The activity does not interfere with the normal public use of surface waters;
 - ii. 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;
 - iii. 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;
 - iv. A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to the Administrator to ensure that the site is restored to preexisting conditions;
 - v. The activity is not subject to the permit requirements of RCW 90.58.550;
- n. The process of removing or controlling aquatic noxious weeds, as defined in RCW 17.26.020, 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 when conducted by or under the supervision of the Whatcom County Noxious Weed Control Board.

This exemption shall not apply to other individuals or groups that intend to remove or control noxious weeds as defined above within the shorelines of Lake Whatcom.

- o. Watershed restoration projects as defined herein. The Department of Ecology 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 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. "Watershed restoration project" means a public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or part of the plan and consists of one or more of the following activities:
 - i. A project that involves less than ten miles of stream reach, in which less than twenty-five 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 erosive forces of flowing water; or
- iii. A project primarily designated 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 structures, other than a bridge or culvert or in-stream habitat enhancement structure associated with the project, is less than two hundred square feet in floor area and is located above the ordinary high water mark.

Watershed restoration plan means a plan (such as the Restoration plan in APPENDIX B), developed or sponsored by the Department of Fish and Wildlife, the Department of Ecology, 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, recreation, 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 (SEPA). The Restoration plan in APPENDIX B is a qualifying plan under this definition of which one or more of its elements could be implemented as an exempt activity.

- p. 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:
 - i. 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;
 - ii. The project received hydraulic project approval by the Department of Fish and Wildlife pursuant to Chapter 77.55 RCW; and
 - iii. The Director has determined that the project is consistent with this Program. The Director shall make such determination in a timely manner and provide it by letter to the project proponent.
- q. 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 Chapter 70.105D RCW or to the Department of Ecology when it conducts 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, and Chapter 173-26 WAC and the local master program.

2. Statements of Exemption

- a. Whenever a development is determined by the City to be exempt from the requirement to obtain a shoreline substantial development permit and the development is subject to one or more of the following federal permits, a letter of exemption is required under the provisions of WAC 173-27-050:
 - i. U.S. Army Corps of Engineers Section 10 permit under the Rivers and Harbors Act of 1899; or
 - ii. A Section 404 permit under the Federal Water Pollution Control Act of 1972;
- b. The letter shall indicate the specific exemption provision from WAC 173-27-040 that is being applied to the development and provide a summary of the City's analysis of the consistency of the project with the Master Program and the Act.
- c. The City shall administer the statement of exemption process as a Type I permit in accordance with BMC 21.10.100. D.
- d. In the case of development that is subject to the regulations of this Title but exempt from the shoreline substantial development permit requirements, a statement of exemption shall be obtained prior to issuance of the building and/or development permit. The Building attach and enforce conditions to the building permit as required by applicable regulations of this Program pursuant to RCW 90.58.140(1) provided that no statement of exemption is required for emergency development pursuant to WAC 173-14-040 (1) (d).

22.05.30 RELATIONSHIP TO OTHER REGULATIONS

- A. The requirements within this Program are in addition to those specified within BMC Title 20 (Land Use Development Ordinance) and any other regulations adopted by the City that might apply, except with regard to critical areas that occur within the shoreline jurisdiction the provisions of this Program shall control.
- B. The goals, policies and development regulations within this Program intend to be consistent with other regulations and to the extent feasible implement shoreline elements within other plans adopted by the City. These include but are not limited to:
 1. BMC Title 20 – Land Use Development Ordinance;
 2. BMC 16.55 – Critical Areas Ordinance;

TITLE 22 SHORELINE MASTER PROGRAM

22.05 APPLICABILITY, EXEMPTIONS, NONCONFORMITY

3. BMC 16.60 – Clearing Ordinance;
 4. BMC 16.70 – Grading Ordinance;
 5. BMC 16.80 – Lake Whatcom Reservoir Regulatory Chapter;
 6. BMC 15.42 – Stormwater Management;
 7. Bellingham Comprehensive Plan (2006);
 8. The 23 individual Neighborhood Plans;
 9. Waterfront Futures Group Framework and Action Plan and Guiding Principles (2004);
 10. City of Bellingham Park, Recreation and Open Space Plan (2005);
 11. Restoration Plan and Environmental Assessment for Whatcom Creek (2002);
 12. Whatcom Creek Waterfront Action Plan (1998);
 13. Watershed Master Plan (1995) currently being updated by Public Works; and
 14. Squalicum Creek Floodplain Management Plan (1994).
- C. The regulations within this Program shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA), per BMC 16.20.
- D. Compliance with the provisions of this Program does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required (e.g., Building Permits, Hydraulic Project Approvals (HPAs), U.S. Army Corps of Engineers Section 404 and/or Section 10 permits, National Pollutant Discharge Elimination System permits). The applicant is responsible for complying with these requirements, apart from the process established in this Program.
- E. The Act and this Program adopted pursuant thereto comprise the basic state and City law regulating use of shorelines in the City. In the event provisions of this Program conflict with other applicable City policies or regulations, generally the more protective of shoreline resources shall prevail except this Program shall regulate critical areas that occur within the shoreline jurisdiction and shall establish all permitted uses adjacent to and critical area buffers and setbacks from the ordinary high water mark of marine water, shoreline streams and wetlands, and Lake Whatcom and Lake Padden.(This revision is the result of an amendment to the City’s CAO; BMC 16.55.490 F.4. that occurred during the spring of 2008; Ordinance 2008-04-036)
- F. In the case of development subject to the shoreline permit requirement of this Program, the City shall not issue a building permit for such development until a shoreline permit has been granted; PROVIDED that, any permit issued by the Building Official for such development shall be subject to the same terms and conditions which apply to the shoreline permit.
- G. In the case of zoning conditional use permits and/or variances for development that is also within the jurisdiction of this Program, the Hearing Examiner shall attach conditions to such permits and variances as are required to make such development consistent with this Program.

- H. In the case of subdivision of land (but not including short subdivisions) within the jurisdiction of this Program, the Hearing Examiner shall attach conditions to such approval as are required to make the design of such subdivision(s) consistent with this Program.

22.05.40 NONCONFORMITY

- A. Any use, structure, lot or other site improvement (e.g., landscaping or signage), which was legally established prior to the effective date of the Shoreline Management Act or the Shoreline Master Program, or amendments thereto that rendered it nonconforming, shall be considered nonconforming if:
 - 1. The use or structure is now prohibited or cannot meet use limitations applicable to the area in which it is located; or
 - 2. The use or structure does not comply with the development standards or other requirements of this Code;
- B. Abatement of Illegal Use, Structure or Development. Any use, structure, lot or other site improvement not established in compliance with use, lot size, building, and development standards in effect at the time of establishment shall be deemed illegal and shall be discontinued or terminated and subject to removal.
- C. Continuation and Maintenance of Nonconformance. A nonconformance may be continued or physically maintained as provided by this Code.
 - 1. Any nonconformance that is brought into conformance for any period of time shall forfeit status as a nonconformance.
 - 2. Discontinuation of Nonconforming Use. A nonconforming use shall not be resumed when abandonment or discontinuance extends for 12 consecutive months.
 - 3. Repair or Reconstruction of Nonconforming Structure. Any structure nonconforming as to height or setback standards may be repaired or reconstructed; provided, that:
 - a. The extent of the previously existing nonconformance is not increased; and
 - b. The building permit application for repair or reconstruction is submitted within 12 months of the occurrence of damage or destruction.
 - 4. Modifications to Nonconforming Structures. Modifications to a nonconforming structure may be permitted; provided, the modification does not increase the area, height or degree of an existing nonconformity.
- D. Change or Intensification of a Nonconforming Use. A nonconforming use may be changed to another nonconforming use or intensified, subject to approval of a shoreline conditional use permit; provided, a new nonconformance with the structural standards shall not be created or increased except by approval of a shoreline variance.

- E. Expansion of a non-conforming single family residence shall be subject to approval of a Type II administrative conditional use permit provided the following conditions can be met (in addition to those in Section 22.06.50.C, *Conditional Uses*):
 - 1. There is no future encroachment into the required buffer beyond the furthest extent of the foundation of the existing structure but not including foundations for patios, decks, pier abutments and other appurtenances.
 - 2. The expansion is compliant with all other BMC requirements.
- F. Nonconforming Lots. Any permitted use may be established on an undersized lot, which cannot satisfy the lot size or width requirements of BMC Title 18; Subdivision; provided that:
 - 1. All other applicable standards of BMC Title 18; Subdivision; are met; or a shoreline variance has been granted;
 - 2. The lot was legally created and satisfied the lot size and width requirements applicable at the time of creation;
 - 3. The lot cannot be combined with contiguous undeveloped lots to create a lot of required size;
 - 4. No unsafe condition or circumstance contrary to the public interest is created by permitting development on the nonconforming lot; and
 - 5. The lot was not created as a “special tract” to protect critical area, provide open space, or as a public or private access tract.

22.06 SHORELINE PERMITS

22.06.10 PERMIT PROCESS

- A. Development within shorelines that requires a shoreline substantial development permit (SSDP) or variance shall be processed as a Type II permit as specified in BMC 21.10.110.
- B. Development within shorelines that requires a shoreline conditional use permit shall be processed as a Type IIIA permit as specified in BMC 21.10.120.
- C. Adjacent lands to shorelands shall also be considered in shoreline permit proposals as specified in RCW 90.58.340. Adjacent, in this case, is defined as those areas of a parcel that are outside of the shoreline jurisdiction as specified above but are under common ownership and being developed concurrent with those lands that are within shorelines.

22.06.20 SUBMITTAL REQUIREMENTS

- A. General. All development proposals within shorelines or shorelands shall satisfy the application submittal requirements set forth in BMC 21.10.190.A.
- B. Critical Areas. In addition to the general submittal requirements in Section A above, development proposals within shorelines or shorelands that are also designated as critical areas shall also satisfy the applicable application submittal requirements as described in Appendix E. Where two or more types of critical areas are present, the critical areas report must meet the report requirements for each relevant type of critical area.

22.06.30 SHORELINE SUBSTANTIAL DEVELOPMENTS

- A. A substantial development permit shall be obtained for all proposed use and development of shorelines unless the proposal is specifically exempt pursuant to BMC 22.05.020.A and B.1.
- B. Shoreline permits that include analysis and regulation of critical areas pursuant to BMC 22.08.30 *Critical Areas*, shall comply with the applicable critical areas reports and mitigation plan submitted pursuant to Section 22.06.20 *Submittal Requirements* as well as the general and specific performance standards specified in Section 22.06.60
- C. In order to be approved, the Director must find that the proposal is consistent with the following criteria:
 - 1. All regulations of this Program appropriate to the shoreline designation and the type of use or development activity proposed shall be complied with, except those bulk and dimensional standards that have been modified by

-
- approval of a shoreline variance under BMC 22.06.30 *Shoreline Substantial Development*.
2. All policies of this Program appropriate to the shoreline designation and the type of use or development activity proposed shall be considered and substantial compliance demonstrated. A reasonable proposal that cannot fully conform to these policies may be permitted, provided it is demonstrated that the proposal is clearly consistent with the overall goals, objectives and intent of the Program.
 3. For projects located on shorelines of statewide significance, the policies of BMC 22.04 shall be also be adhered to.
- D. Approval of Activities. The Director shall condition approvals of activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions may include, but are not limited to, the following:
1. 1. Establishment of buffer zones;
 2. Preservation of critically important vegetation and/or habitat features such as snags and downed wood;
 3. Limitation of access to the habitat area, including fencing and signage to deter unauthorized access;
 4. Seasonal restriction of construction activities;
 5. Establishment of a duration and timetable for periodic review of mitigation activities; and
 6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

22.06.40 VARIANCES

- A. The purpose of a variance permit is strictly limited to granting relief from specific bulk, dimensional or performance standards set forth in this Program. Variances may be granted only where there are extraordinary circumstances relating to the physical character or configuration of property such that the strict implementation of this Program will impose an unnecessary hardship on the applicant or thwart the policies set forth within RCW 90.58.020.
- B. Variance permits for development that will be located landward of the ordinary high water mark (OHWM) and within a shoreline and / or critical area buffer as specified in this program may be authorized provided the applicant can demonstrate all of the following:
 1. That the strict application of the bulk, dimensional or performance standards set forth in the applicable Master Program precludes or significantly interferes

-
- with a reasonable use of the property not otherwise prohibited by the Master Program;
2. That the hardship described in A. above 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;
 3. That the design of the project is compatible with other authorized uses in the area and with uses planned for the area under the comprehensive plan and this Program and will not cause adverse effects to or the shoreline environment;
 4. That the requested variance does not constitute a grant of special privilege not enjoyed by the other properties in the area;
 5. That the variance requested is the minimum necessary to afford relief; and
 6. The public interest will suffer no substantial detrimental effect.
- C. The Department may impose additional conditions onto a variance approval as necessary to assure consistency with this Program and that the policies set forth in RCW 90.58.020 are not thwarted.
- D. Prior to application for a variance, the applicant shall demonstrate that the mitigation sequencing specified in this Program has been used to design the project and avoid and/or minimize impacts to the extent feasible.
- E. The applicant shall demonstrate that the proposal achieves a no net loss of ecological function
- F. Variance permits for development that will be located either waterward of the ordinary high water mark (OHWM), within the channel migration zone or frequently flooded area, where applicable, or within a critical area as described in this Program, or within wetlands as defined by RCW 90.58.030 may be authorized provided the applicant can demonstrate all of the following:
1. That the strict application of the bulk, dimensional or performance standards set forth in this Master Program precludes all reasonable use of the property not otherwise prohibited by the Master Program;
 2. That the proposal is consistent with the criteria established in this section, Ch. 22.06.40; and
 3. That the public rights of navigation and use of the shorelines will not be adversely affected.
- G. 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 developments and/or uses in the area where similar circumstances exist, the total of the variances shall also remain consistent with the policies of this Program and the Shoreline Management Act and shall not produce substantial adverse effects to the shoreline environment.

- H. Requests for varying the use to which a shoreline area is to be put are prohibited and, are not requests for variances, but rather requests for conditional uses.
- I. Any variance granted by the City must be forwarded to the Department of Ecology for approval, approval with conditions, or denial as specified in WAC 173-27-200.

22.06.50 CONDITIONAL USES

- A. The purpose of the Conditional Use provision is to provide more control and flexibility for implementing the regulations of the Master Program in a manner consistent with the policies of the Act. In authorizing a conditional use, special conditions may be attached to the permit by the City or Department to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the Act and this Program.
- B. An applicant for a substantial development permit which also requires a conditional use permit shall submit applications for both permits simultaneously pursuant to BMC 21.10.
- C. Prior to the granting of a conditional use permit, as specifically required by this Program or for uses which are not classified as such by this Program, the applicant shall demonstrate all of the following:
 - 1. The provisions spelled out in the Master Program have been met and the proposed use is consistent with the policies of the Act;
 - 2. The proposed use will cause no significant, adverse impacts to the shoreline environment, ecological functions, or other uses;
 - 3. The proposed use will not interfere with the normal public use of public shorelines;
 - 4. 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 the Program;
 - 5. The proposed use will not be contrary to the purpose and intent of the environment designation in which it is located and the general intent of the Master Program;
 - 6. The proposed use(s) shall provide a long-term public benefit in terms of providing public access or implementing habitat restoration that is consistent with the goals of this Program; and
 - 7. That the public interest shall suffer no substantial detrimental effect.
- D. The Hearing Examiner or Department may require additional conditions as are necessary to insure proper compliance with the intent and purpose of the environment designation and Master Program or to insure protection of the surrounding environment and uses.
- E. In the granting of conditional use permits, consideration shall be given to the cumulative environmental impact of additional requests for like actions in the area. For example, if conditional use permits were granted for other developments in the

area where similar circumstances exist, the sum of the conditional uses and their impacts shall also remain consistent with the policies of RCW 90.58.020 and shall not produce a significant adverse effect to the shoreline environment.

- F. Any conditional use permit granted by the City must be forwarded to the Department of Ecology for its approval, or approval with conditions, or denial per WAC 173-27-160.

22.06.60 FEES

The City shall establish fees by resolution for filing permits under this Title.

22.06.70 APPEALS

- A. Any person aggrieved by the granting, revising, denying, or rescinding of a permit on shorelines of the state pursuant to RCW 90.58.140 may, except as otherwise provided in Chapter 43.21L RCW, seek review from the shorelines hearings board by filing a petition for review within twenty-one days of the date of filing as defined in RCW 90.58.140(6).
- B. Within seven days of the filing of any petition for review with the board as provided in this section pertaining to a final decision of the City, the petitioner shall serve copies of the petition on the Department of Ecology, the office of the attorney general, and the City. The Department of Ecology and the attorney general may intervene to protect the public interest and insure that the provisions of this Program are complied with at any time within fifteen days from the date of the receipt by the Department of Ecology or the attorney general of a copy of the petition for review filed pursuant to this section. The shorelines hearings board shall schedule review proceedings on the petition without regard as to whether the period for the Department of Ecology or the attorney general to intervene has or has not expired.
- C. The Department of Ecology or the attorney general may obtain review of any final decision granting or revising a permit, or granting or denying an application for a permit issued by the City by filing a written petition with the shorelines hearings board and the City within twenty-one days from the date the final decision was filed as provided in RCW 90.58.140(6).
- D. The review proceedings authorized in A. and B. of this section are subject to the provisions of Chapter 34.05 RCW pertaining to procedures in adjudicative proceedings. Judicial review of such proceedings of the shorelines hearings board is governed by Chapter 34.05 RCW. The board shall issue its decision on the appeal authorized under A. and B. of this section within one hundred eighty days after the date the petition is filed with the board or a petition to intervene is filed by the Department of Ecology or the attorney general, whichever is later. The time period may be extended by the board for a period of thirty days upon a showing of good cause or may be waived by the parties.
- E. Appeal of City amendments to this Master Program shall be to the growth management hearings board pursuant to RCW 36.70A.280.

22.06.80 STATE ENVIRONMENTAL POLICY ACT (SEPA) COMPLIANCE

- A. Shoreline permit or approval applications that are not categorically exempt shall be subject to environmental review by the responsible official pursuant to the State Environmental Policy Act (WAC 197-11).
- B. As part of the SEPA checklist review, the responsible official may require additional information regarding the proposed development in accordance with WAC 197-11 to make an equitable and reasonable determination of the development's potential impact on the environment.
- C. Failure of the applicant to submit sufficient information for a threshold determination to be made shall be grounds for refusal of the application by the responsible official.
- D. The City's substantive authority and basis for mitigation to condition or deny a proposal are set forth in WAC 197-11-660, and as established in other City codes.

22.06.90 EXPIRATIONS AND EXTENSIONS

The following time requirements shall apply to all substantial development permits and to any development authorized pursuant to a variance or conditional use permit:

- A. Upon a finding of good cause, based on the requirements and circumstances of the project proposed and consistent with the policy and provisions of the Master Program and the Act, the City may adopt appropriate time limits as a part of an action on a substantial development permit and the City, with the approval of the Department of Ecology, may adopt appropriate time limits as a part of action on a conditional use or variance permit. "Good cause based on the requirements and circumstances of the project," shall mean that the time limits established are reasonably related to the time actually necessary to perform the development on the ground and complete the project that is being permitted, and/or are necessary for the protection of shoreline resources.
- B. Where neither the City nor the Department of Ecology includes specific provisions establishing time limits on a permit as a part of an action on the permit, the following time limits shall apply:
 - 1. Construction shall be commenced or, where no construction is involved, the use or activity shall be commenced within two years of the effective date of a shoreline permit. Provided, that the City may authorize a single extension for a period not to exceed one year based on reasonable factors, if a request for extension has been filed before the expiration date and notice of the proposed extension is given to parties of record and the Department of Ecology.
 - 2. Authorization to conduct development activities shall terminate five years after the effective date of a shoreline permit. Provided, that the City may authorize a single extension for a period not to exceed one year based on reasonable factors, if a request for extension has been filed before the expiration date and notice of the proposed extension is given to parties of record and the Department of Ecology.
 - 3. The effective date of a shoreline permit shall be the date of the last action required on the shoreline permit and all other government permits and

approvals that authorize the development to proceed, including all administrative and legal actions on any such permit or approval. It is the responsibility of the applicant to inform the City of other permit applications filed with agencies other than the City and of any related administrative and legal actions on any permit or approval. If no notice of the pendency of other permits or approvals is given to the City prior to the date established by the shoreline permit or the provisions of this section, the expiration of a permit shall be based on the shoreline permit.

4. When permit approval is based on conditions, such conditions shall be satisfied prior to occupancy or use of a structure or prior to commencement of a nonstructural activity, provided, that an alternative compliance limit may be specified in the permit.
5. Revisions to permits under WAC 173-27-100 may be authorized after original permit authorization has expired under number 2 of this section, provided that this procedure shall not be used to extend the original permit time requirements or to authorize substantial development after the time limits of the original permit.
6. The City shall notify the Department of Ecology in writing of any change to the effective date of a permit, as authorized by this section, with an explanation of the basis for approval of the change. Any change to the time limits of a permit other than those authorized by this section shall require a new permit application.

22.06.100 PERMIT REVISIONS

- A. A permit revision is required whenever the applicant proposes substantive changes to the design, terms or conditions of a project 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 that are not substantive in effect do not require approval of a revision.
- B. When an applicant seeks to revise a permit, the City shall request from the applicant detailed plans and text describing the proposed changes.
- C. If the City determines that the proposed changes are within the scope and intent of the original permit, and are consistent with the Master Program and the Act, the City may approve a revision. "Within the scope and intent of the original permit" means all of the following:
 1. No additional over-water construction is involved except that pier, dock, or float construction may be increased by five hundred square feet or ten percent from the provisions of the original permit, whichever is less;
 2. Ground area coverage and height may be increased a maximum of ten percent from the provisions of the original permit;

3. The revised permit does not authorize development to exceed height, lot coverage, setback, or any other requirements 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 any conditions attached to the original permit and with the Master Program;
 5. The use authorized pursuant to the original permit is not changed; and
 6. No adverse environmental impact will be caused by the project revision.
- D. Revisions to permits may be authorized after original permit authorization has expired under WAC 173-27-080(2). The purpose of such revisions shall be limited to authorization of changes which are consistent with this section and which would not require a permit for the development or change proposed under the terms of Chapter 90.58, RCW and this Master Program. If the proposed change constitutes substantial development then a new permit is required. Provided, this subsection shall not be used to extend the time requirements or to authorize substantial development beyond the time limits of the original permit.
- E. If the sum of the revision and any previously approved revisions under former WAC 173-14-064 or this section violate the provisions in C. of this section, the City shall require that the applicant apply for a new permit.
- F. The revision approval, including the revised site plans and text consistent with the provisions of WAC 173-27-180 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 their action.
- G. 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 the Department's approval, approval with conditions, or denial, and shall indicate that the revision is being submitted under the requirements of this subsection. The Department shall render and transmit to the City and the applicant its final decision within fifteen days of the date of the Department's receipt of the submittal from the City. The City shall notify parties of record of the Department of Ecology's final decision.
- H. The revised permit is effective immediately upon final decision by the City or, when appropriate under G. of this section, upon final action by the Department of Ecology.
- I. Appeals shall be in accordance with RCW 90.58.180 and shall be filed within twenty-one days from the date of receipt of the City's action by the Department of Ecology or, when appropriate under G. of this section, the date the Department's final decision is transmitted to the City and the applicant. Appeals shall be based only upon contentions of noncompliance with the provisions of C. of this section. Construction undertaken pursuant to that portion of a revised permit not authorized under the original permit is at the applicant's own risk until the expiration of the appeals deadline. If an appeal is successful in proving that a revision is not within the scope and intent of the original permit, the decision shall have no bearing on the original permit.

22.07 ADMINISTRATION AND LEGAL PROVISIONS**22.07.10 ADMINISTRATION**

- A. The Planning and Community Development Department Director shall administer this Program in accordance with the permit procedures specified in RCW 90.58.140, 90.58.143, 90.58.210 and 90.58.220 and WAC 173-27, and related City codes, such as BMC 21.10.
- B. The Planning Director shall have the following authority and responsibility in administering this Program:
 - 1. Overall administrative responsibility for this Program;
 - 2. Authority to determine submittal requirements in accordance with BMC 21.10.190;
 - 3. Authority to determine if an application is complete or incomplete;
 - 4. Authority to grant or deny statements of exemption; and
 - 5. Authority to grant or deny substantial development permits not requiring a public hearing.
- C. Roles and responsibilities of the Hearing Examiner shall be in accordance with BMC 2.56.050.

22.07.20 AMENDMENTS

- A. Amendments to this Program shall be processed according to the procedures prescribed in WAC 173-26-100 and BMC 21.10.150.
- B. Any person or agency may petition the City to amend this Program. Petitions shall specify the changes requested and any and all reasons therefore. The City may consider a petition in accordance with BMC 21.10.150 if it deems the proposed amendment would make this Program more consistent with the Act and/or any applicable Department of Ecology guidelines, or more equitable in its application to persons or property due to changed conditions in an area.

22.07.30 PENALTIES AND VIOLATIONS

- A. Pursuant to RCW 90.58.210(2) and WAC 173-27-280, any person who fails to conform to the terms of a substantial development permit, conditional use permit or variance issued under RCW 90.58.140, who undertakes a development or use on shorelines of the state within the City without first obtaining a permit, or who fails to comply with a cease and desist order shall be subject to a civil penalty not to exceed one thousand dollars for each violation. Each permit violation or each day of violation shall constitute a separate violation. The penalty shall be imposed pursuant to the procedure set forth in WAC 173-27-280 and become due and recovered as set forth in WAC 173-27-290(3) and (4). Persons incurring a penalty may appeal the same pursuant to WAC 173-27-290(1) and (2) to the Hearing Examiner.

- B. In addition to incurring civil liability under A., above, pursuant to RCW 90.58.220, any person found to have willfully engaged in activities on shorelines of the state within the City in violation of the provisions of the Act or of this Program or other regulations adopted pursuant thereto shall be guilty of a gross misdemeanor, and shall be punished by a fine of not less than twenty-five nor more than one thousand dollars or by imprisonment in the county jail for not more than ninety days, or by both such fine and imprisonment. The fine for the third and all subsequent violations in any five-year period shall be not less than five hundred nor more than ten thousand dollars. Any person found to have willfully violated any court order or a cease and desist order issued pursuant to this Program shall be subject to a fine of not more than five thousand dollars, imprisonment in the county jail for not more than ninety days, or both.

22.07.40 REMEDIES

- A. Pursuant to RCW 90.58.210(1), the City, where authorized, shall bring such injunctive, declaratory, or other actions as are necessary to insure that no uses are made of the shorelines of the state within the City in conflict with the provisions of this Program, the Act, or other regulations adopted pursuant thereto, and to otherwise enforce the provisions of this Program.
- B. Pursuant to RCW 90.58.230, any person subject to the regulatory provisions of this Program or the Act who violates any provision thereof, or permit or permit condition issued pursuant thereto shall be liable for all damage to public or private property arising from such violation, including the cost of restoring the affected area to its conditions prior to violation. The City Attorney shall bring suit for damages under this section on behalf of the City. If liability has been established for the cost of restoring an area affected by a violation, the court shall make provision to assure that restoration will be accomplished within a reasonable time at the expense of the violator. In addition to such relief, including money damages, the court in its discretion may award attorney's fees and costs of the suit to the prevailing party.
- C. Pursuant to WAC 173-27-270, the Planning and Community Development Department Director shall have the authority to serve upon a person a cease and desist order if an activity being undertaken on shorelines of the state within the City is in violation of the Act or this Program, or of any permit issued pursuant thereto. The Director shall follow the procedure set forth in WAC 173-27-270 in issuing a cease and desist order.
- D. Rights of Entry
- 1. For Permitting or Inspection of Work Conducted Under Permit.**
Whenever a person applies for a permit or approval under any section of this Program, the Planning and Community Development Department Director or it's designee shall have a limited right of entry during the City's normal business hours to conduct studies necessary to determine whether to approve the proposal or to inspect work being conducted under the permit or approval. The property owner's failure to grant permission for the designee to enter the

property shall be grounds for denial of the permit or issuance of a cease and desist order.

2. **To Investigate Violations and Corrections.** The Planning and Community Development Department Director or it's designee is authorized to enter upon property to determine whether the provisions of the Act and this Program are being obeyed and to make any examinations, surveys, and studies as may be necessary in the performance of his or her duties. The designee shall obtain the property owner's permission prior to entry. If the property owner declines to give permission or cannot be located, the designee shall enter upon the property only in a manner consistent with the constitutions and laws of the United States and the State of Washington. If so required by the constitutions and laws of the United States and the State of Washington, the designee shall apply to a court of competent jurisdiction for a search warrant authorizing access to such property for such purpose.
 3. **Search Warrants.** Both Bellingham Municipal Court and Whatcom County Superior Court are authorized to issue search warrants under this Program.
- E. Abatement – Structures or development on shorelines considered by the City to present a hazard or other public nuisance to persons, properties, or natural features may be abated by the City under the provisions of the International Building Code, International Property Maintenance Code, or by other appropriate means.

22.07.50 SEVERABILITY

- A. If any section, subsection, or provision of this Program, or its application to any person or circumstances is held invalid, the remainder of this Program, or the application of the provision to other persons or circumstances shall not be affected.

22.07.60 REVISED PROGRAM

- A. The revision and renumbering of this Program into Title 22 shall not release any person from full compliance with the terms and conditions of any permit or approval previously granted by the City. Where pre-existing permit conditions specify compliance with certain provisions of the Program, the equivalent provisions of the revised Program shall apply.
- B. The Planning and Community Development Department Director shall determine which sections apply where interpretation is necessary.

22.07.70 REFERENCES TO PLANS, REGULATIONS OR INFORMATION SOURCES

- A. Where this Program makes reference to any RCW, WAC, or other local, state, or federal law or regulation, or to any source of information, the most recent amendment or current edition shall apply.

22.08 GENERAL POLICIES AND REGULATIONS

PURPOSE AND INTENT: The policies and regulations within this Chapter shall be applied either generally to all shorelines or to shorelines that meet the applicable criteria of the regulation without regard to shoreline designation. These provisions address certain elements as required by RCW 90.58.100 (2) and implement the principles as established in WAC 173-26-186.

22.08.10 SHORELINE BUFFERS

A. Policies

1. Protection of and uses allowed within shorelines and their associated buffers as specified in this Title shall be managed in a manner that results in no net loss of shoreline ecological function.
2. The City via the provisions within this Title should protect shorelines and their buffers so that they continue to contribute to existing ecosystem-wide processes and shoreline ecological functions.

B. Regulations

1. The Director shall require the establishment of buffer areas for activities adjacent to critical areas as specified in this program. Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, function and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby.
2. Development shall be buffered and setback from shorelines in accordance with the standards of BMC 22.11.30 *Development Regulation Matrices A-F*. The buffer widths (Riparian Habitat Area widths) shall be increased beyond the minimum, up to the maximum, (except within the Waterfront District) as follows:
 - a. The Director determines that the minimum width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;
 - b. When a frequently flooded area, as specified in BMC 16.55.370.B, exceeds the minimum riparian habitat area width, the riparian habitat area shall extend to the outer edge of the frequently flooded area;
 - c. When a channel migration zone is present, the buffer width shall be measured from the outer edge of the channel migration zone;
 - d. When the habitat area is in an area of high blow-down potential, the buffer width shall be expanded an additional fifty (50) feet on the at-risk side; or
 - e. When the habitat area is within a landslide hazard area, or buffer, the riparian habitat area width shall be the maximum distance of the erosion or landslide hazard area buffer, whichever is greater.

3. The Director may allow the buffer width to be averaged between the minimum and maximum buffer widths specified in BMC 22.11.30 *Development Regulation Matrices A-F* (except within the Waterfront District Shoreline Mixed-Use shoreline designation) when all of the following are demonstrated:
 - a. The width averaging will not result in a net loss of shoreline ecological functions including a net loss to those habitats for anadromous fish and terrestrial species;
 - b. The recommended buffer width is not reduced below the minimum in any location;
 - c. The width averaging will not be located within another critical area or associated buffer; and
 - d. The averaging is part of a restoration or enhancement project that has been reviewed and approved by the Washington State Department of Fish and Wildlife and overall, achieves a net gain in shoreline ecological function.
4. The following specific activities may only be permitted as part of an authorized use and subject to submittal of a critical area report within a shoreline, or a critical area within shorelines and/or their required buffers when they comply with the applicable policies and regulations of this chapter and BMC 22.03, 22.04 and 22.09:
 - a. Clearing, filling and grading when permitted as part of an authorized activity and shall be subject to the policies and regulations in BMC 22.08.170 *Landfill*;
 - b. Shoreline Modification and Stabilization. New, replacement, or substantially improved shoreline modification and/or stabilization features may be permitted as an element of a water-oriented use and in accordance with an approved critical area report that demonstrates compliance with the policies and regulations in BMC 22.08.120 *Shoreline Modification / Stabilization*;
 - c. Public Roads, Trails, Bridges, and Rights-of-Way. Construction of trails, roadways, and minor road bridging, less than or equal to thirty (30) feet wide, may be permitted in accordance with an approved critical area report and shall comply with the applicable requirements within BMC 22.08.90 *Public Access* and BMC 22.09.110 *Roads, Railways, and Utilities*;
 - d. Public Utility Facilities. New utility lines and facilities may be permitted to cross watercourses in accordance with an approved critical area report and shall comply with the policies and regulations within BMC 22.09.110 *Roads, Railways, and Utilities*;
 - e. 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 area report and the approval of a federal Biological Assessment by the federal agency responsible for reviewing

actions related to a federally listed species. Said protection measures shall comply with the applicable policies and regulations in this Title, including the requirements in BMC 22.08.70, *Flood Hazard Reduction*;

- f. In-water structures, as defined, shall be allowed as part of an approved watershed basin restoration project approved by the City and upon acquisition of any required state or federal permits or as an element of a water-dependent or aquatic use. Said structures or features shall be designed to avoid modifying flows and water quality in ways that may adversely affect critical areas and habitat conservation areas and shall comply with the applicable policies and regulations in BMC 22.08.30 *Critical Areas - .40*; 22.08.150 *In-Water Structures* and 22.09.60 *Piers, Floats, Pilings – Lake Whatcom and Lake Padden- .70 Piers, Floats, Pilings within Marine Shorelines*;
- g. Public Stormwater Conveyance Facilities. (This does not include stormwater management facilities such as detention ponds, stormwater vaults or wetlands.) Conveyance structures may be permitted within a required buffer in accordance with an approved critical area report when all of the following are demonstrated:
 - i. No other feasible alternatives with less impact exist;
 - ii. Mitigation for impacts including water quality 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. Additional vegetation shall consist of species capable of achieving a height sufficient to provide substantial shade to the adjacent water-body provided, they do not alter channel migration and flood conveyance capacity; and
- h. Restoration and enhancement activities subject to the standards in BMC 22.09.100 *Restoration and Conservation* and as specified in subsection 5, below.
- i. Establishment of a Native Vegetation Protection Area and / or an engineered stormwater management mechanism(s) if required per BMC 16.80 or, as a voluntary action for development or redevelopment within the shorelines of Lake Whatcom provided that:
 - i. Existing native trees and shrubs are not removed or they may be relocated on site.
 - ii. Structural engineered stormwater mechanisms shall be setback a minimum of 25 feet from an existing bulkhead or from the OHWM or as otherwise required by BMC 15.42. whichever is greatest.

- iii. All activity is compliant with the performance standards and seasonal restrictions in BMC 15.42 and BMC 16.80.
5. Restoration and enhancement projects, when approved by the Director and the Bellingham Field Office of the Department of Ecology, may approve buffers and setbacks different from those included in the Development Regulation Matrices in Section 22.11.30.A-F, *Development Regulation Matrices*, provided such projects meet the purpose and intent of this Chapter and are agreed to by affected property owner(s). Said restoration projects shall include sufficient legal and/or fiscal guarantees to assure specific performance of the project.
6. Restoration and enhancement projects that alter the location of the OHWM on affected properties shall be subject to the applicable requirements in Section 22.09.100 *Restoration and Conservation*.

22.08.20 MITIGATION SEQUENCING

- A. For all developments, applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to shoreline ecological functions. Applicants shall follow the mitigation sequential descending order of preference below:
 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, such as project redesign, relocation, or timing, to avoid or reduce impacts;
 3. Rectifying the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas and their associated buffers, by repairing, rehabilitating, or restoring the affected environment to the equivalent or better than the conditions existing at the time of the initiation of the project;
 4. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action or project;
 5. Compensating for the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas and their associated buffers by replacing, enhancing, or providing substitute resources or environments; and
 6. Monitoring the hazard or other required mitigation and taking remedial action and appropriate corrective action to fully restore the intended ecological functions of the mitigation action, as proposed.

- B. Mitigation for individual actions may include a combination of the above measures. In determining mitigation measures, lower priority measures shall be applied only where higher priority measures are determined to be infeasible or inapplicable.
- C. Mitigation when required pursuant to this section, shall comply with the submittal requirements as specified in Chapter 22.06
- D. Application of the mitigation sequencing in A., above, shall achieve no net loss of shoreline ecological functions for each new development and shall not result in required mitigation in excess of that necessary to assure that development will result in no net loss of shoreline ecological function.
- E. When compensatory measures are appropriate pursuant to the mitigation sequencing in A., above, preferential consideration shall be given to measures that replace the impacted functions directly or are in the immediate vicinity of the impact. However, alternative compensatory mitigation within the watershed that addresses limiting factors or identified critical needs for shoreline resource conservation based on the 2004 SCI, watershed or comprehensive resource management plans applicable to the area of impact may be authorized. Authorization of compensatory mitigation measures may require appropriate safeguards, terms or conditions as necessary to ensure no net loss of shoreline ecological functions.

22.08.30 CRITICAL AREAS

A. Policies

1. Critical areas that are within the shoreline jurisdiction are to be protected and managed in such a manner that the result of any use activity or development is no net loss of shoreline ecological function, and is in accordance with the standards and requirements within this Title.
2. Critical areas within the shoreline jurisdiction should be protected and restored by integrating the full spectrum of planning and regulatory measures, including the comprehensive plan, inter-local watershed plans, local development regulations, and state, tribal, and federal programs.
3. The City should protect critical areas and their existing shoreline ecological functions so that they continue to contribute to existing ecosystem-wide processes.
4. The City and other special interest groups, organizations or non-profit entities should restore and enhance degraded critical areas as separate restoration projects to improve existing shoreline ecological functions and ecosystem-wide processes, where feasible and appropriate.
5. The City should promote uses and values that are compatible with the other objectives of this section, such as public access and native vegetation management, provided they do not significantly adversely impact shoreline ecological functions.

B. Regulations

1. For development within critical areas or their associated buffers within the shoreline jurisdiction, the following standards shall apply:
 - a. Development within critical areas shall result in a no net loss of ecological function;
 - b. Development shall adhere to the applicable requirements within this Title;
 - c. Development proposals shall adhere to the applicable submittal requirements as specified in Chapter 22.06.
 - d. Development shall include the requirements for mitigation sequencing as specified in BMC 22.08.20 *Mitigation Sequencing* of this Program;
 - e. Where mitigation is required, the applicable mitigation report submittal requirements as specified in Chapter 22.06 shall apply; and
 - f. Development within two or more critical area types shall be required to adhere to the standards that are the most protective of the ecological function of the subject shoreline or critical area;
2. Endangered, Threatened, and Sensitive Species.
 - a. Whenever activities are proposed within or adjacent to a habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the City.
 - b. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292). The City shall verify the location of eagle management areas for each proposed activity. Approval of the activity shall not occur prior to approval of the habitat management plan by the Washington Department of Fish and Wildlife.
 - c. Whenever activities are proposed within or adjacent to a designated habitat of local significance or that may likely adversely affect a designated species of local importance (each category designated by City Council per ordinance), such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the City.
3. All activities, uses and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat including, but not limited to, adhering to the standards within this program.
4. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a habitat conservation area unless authorized by a state or federal permit or approval.
5. Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an

approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.

6. Mitigation of alterations to critical areas and buffers shall achieve equivalent or greater biologic and hydrologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.

22.08.40 CRITICAL SALTWATER HABITATS (Fish and Wildlife Habitat Conservation Areas)

A. Policies

1. Development within critical saltwater habitats including, but not limited to designated habitats of local significance, all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as herring, smelt and sand lance, subsistence, commercial and recreational shellfish beds, mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association, should result in no net loss of ecological function, comply with the applicable requirements in this Title and those specific use policies and regulations in BMC 22.09.
2. Protection of critical saltwater habitats should incorporate the participation of resource agencies including tribal nations to assure consistency with other legislatively created mandates and programs in addition to local and regional government entities. (Including but not limited to Washington State Department of Fish and Wildlife, Lummi Nation, Nooksack Tribe, Port of Bellingham, Puget Sound Action Team, Department of Ecology.)
3. Permitted uses adjacent to or within critical saltwater habitats should not compromise the ability to restore these features in the future.

B. Regulations

1. No structures of any kind shall be placed in or constructed over critical saltwater habitats unless they result in no net loss of ecological function, are associated with a water-dependent use, comply with the applicable requirements within this Chapter and BMC 22.09 and meet all of the following conditions:
 - a. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat;
 - b. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible or would result in unreasonable and disproportionate cost to accomplish the same general purpose;
 - c. The project is consistent with the state's interest in resource protection and species recovery;
 - d. The public's need for such an action or structure is clearly demonstrated and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020;
 - e. Shorelands that are adjacent to critical saltwater habitats shall be regulated per the requirements within this Program.
2. A qualified professional shall demonstrate compliance with the above criteria in addition to the required elements of a critical area report as specified in Chapter 22.06.

22.08.50 CRITICAL FRESHWATER HABITATS (Fish and Wildlife Conservation Areas)

A. Policies

1. The City should manage its critical freshwater habitats within shoreline jurisdiction including, but not limited to, those portions of streams, wetlands, and lakes, their associated channel migration zones, and floodplains and designated habitats of local significance in order to achieve a no net loss of shoreline ecological function and in accordance with this Title
2. Protection and restoration measures should address the entire length of the shoreline riparian corridor from the headwaters to the subject estuary.
3. Use activities and development within stream channels, associated channel migration zones, wetlands, and floodplains, to the extent such areas are in the shoreline jurisdictional area, should be minimized to assure no net loss of shoreline ecological functions associated with said areas, including the associated hyporheic zone.
4. Restoration planning should include incentives and other means to restore water connections that have been impeded by previous development and provisions to protect hydrologic connections between water-bodies, watercourses, and associated wetlands.
5. Comprehensive watershed management planning, when available, should be implemented to protect critical freshwater habitat areas.

B. Regulations

1. No structures of any kind shall be placed in or constructed over critical freshwater habitats unless they are for a preferred use and result in no net loss of ecological function and are compliant with the applicable requirements of this Title.

22.08.60 CRITICAL AREA REGULATIONS FOR WETLANDS WITHIN THE SHORELINE JURISDICTION

All land use and development including, but not limited to, clearing, grading, construction of infrastructure, buildings, facilities, accessories and appurtenances that are proposed, developed, occupied and operated within wetlands regulated under BMC 16.55.270 or their buffers shall comply with the following regulations. Wetland ratings shall be established in accordance with BMC 16.55.280.

- A. **Measurement of Wetland Buffers.** All buffers shall be measured horizontally from edge of the wetland boundary as surveyed in the field. The width of the wetland buffer shall be determined according to Tables 1, 2, and 3 below.
- B. **Buffer Standards.** The buffer standards required by this ordinance presume the existence of a dense vegetation community in the buffer adequate to protect the wetland functions and values. When a buffer lacks adequate vegetation, the

Director may increase the standard buffer, requiring buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.

The standard buffer shall be based on the wetland category, the adjacent land use, and the functions provided by the wetland. There are 3 sets of buffer standards, based on these parameters:

1. For wetlands that have a high level of function for wildlife habitat as indicated by a habitat function score of 29 points or more on the wetland rating form, the buffers shall be as follows:

Table 1	Buffer Width (feet)		
Wetland Category	High Intensity	Moderate Intensity	Low Intensity
Category I	200	190	150
Category II	200	150	100
Category III	150	110	75
Category IV	50	40	25

Definitions for high, moderate and low intensity land use are provided in 22.10.

2. For wetlands that have a moderate level of function for wildlife habitat as indicated by a habitat function score of 20-28 points on the wetland rating form, the buffer shall be as follows:

Table 2	Buffer Width (feet)		
Wetland Category	High Intensity	Moderate Intensity	Low Intensity
Category I	150	110	75
Category II	150	110	75
Category III	150	100	60
Category IV	50	40	25

Definitions for high, moderate and low intensity land use are provided in 22.10.

3. For wetlands that have a low level of function for wildlife habitat as indicated by a habitat function score of less than 20 points on the wetland rating form, the buffers shall be as follows:

Table 3	Buffer Width (feet)		
Wetland Category	High Intensity	Moderate Intensity	Low Intensity
Category I	100	75	50
Category II	100	75	50
Category III	80	60	50
Category IV	50	40	25

Definitions for high, moderate and low intensity land use are provided in 22.10.

- C. **Modifications to Buffer Widths.** Any modifications to the buffer width are to be based on the specific wetland functions, site and/or watershed characteristics, and location of the wetland within the watershed or sub-basin, and the proposed land use.
1. **Increasing Buffer Widths.** The Director shall have the authority to increase the standard buffer width on a case-by-case basis when a larger buffer is required by an approved habitat management plan as outlined in Section 22.06.100 *Permit Revisions*; or such increase is necessary to:
 - a. Protect the function and value of that wetland, including but not limited to compensating for a poorly vegetated buffer that has a steep slope (greater than thirty percent); or
 - b. Prevent wind-throw damage; or
 - c. Maintain viable populations of species such as herons and other priority or fish and wildlife; or
 - d. Protect wetlands or other Critical Areas from landslides, erosion or other hazards.
 2. **Reducing Wetland Buffer Widths.** The Director shall have the authority to reduce the standard buffer widths, provided that all of the following apply and, provided further, that proposed reductions to less than the minimum buffer stated herein shall require approval of a shoreline variance:
 - a. The buffer of a Category I wetland shall not be reduced.
 - b. The buffer reduction shall not adversely affect the functions and values of the adjacent wetlands;
 - c. The buffer of a Category II or III wetland shall not be reduced to less than 75% of the required buffer or 50 feet, whichever is greater;
 - d. The buffer of a Category IV wetland shall not be reduced to less than 50% of the required buffer, or 25 feet, whichever is greater; and
 - e. The applicant implements all reasonable measures to reduce the adverse effects of adjacent land uses and ensure no new loss of buffer functions and values. The specific measures that shall be implemented include, but are not limited to, the following:
 - i. Direct lights away from the wetland and buffer;
 - ii. Locate facilities that generate substantial noise (such as some manufacturing, industrial and recreational facilities) away from the wetland and buffer;
 - iii. Establish covenants limiting use of pesticides and fertilizers within 150 feet of the wetland;

- iv. Implement integrated pest management programs;
 - v. Infiltrate or treat, detain and disperse run-off into buffer;
 - vi. Construct a wildlife permeable fence around buffer and post signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the City;
 - vii. Plant buffer with “impenetrable” native vegetation appropriate for the location;
 - viii. Use Low Impact Development techniques to the greatest extent possible.
 - ix. Establish and record a permanent conservation easement to protect the wetland and the associated buffer.
3. **Averaging Buffer Widths.** The Director has the authority to average wetland buffer widths on a case-by-case basis when all the following criteria are met:
- a. The buffer averaging does not reduce the functions or values of the wetland;
 - b. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer, and all increases in buffer dimension for averaging must be parallel to the wetland boundary;
 - c. The wetland contains variations in sensitivity due to existing physical characteristics of the character of the buffer varies in slope, soils, or vegetation;
 - d. The buffer width is not reduced in any location to less than 50% of the standard width or 35 feet, whichever is greater, except for buffers for Category IV wetlands, and low intensity land uses in which case the narrowest buffer width can be determined on a case-by-case basis;
 - e. The buffer has not been reduced in accordance with Subsection 2 above. Buffer averaging is not allowed if the buffer has been reduced; and
 - f. There were no feasible alternatives to the site design without buffer averaging.
- D. **Buffer Maintenance.** Final buffer conditions shall be maintained and undisturbed from future impacts.
- E. **Buffer Impacts.** Where impacts to buffers cannot be avoided and where buffer reduction and averaging are not sufficient or appropriate to offset buffer impacts, compensatory mitigation shall be provided. Compensatory mitigation for buffer impacts shall follow the requirements of Section 22.08.20 *Mitigation Sequencing*.

- F. **Buffers on Mitigated Sites.** All mitigation sites shall have buffers consistent with the buffer requirements of this chapter and based on expected category of the wetland once the mitigation actions are taken.
- G. **Building Set-backs from Buffers.** Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the edges of all wetland buffers or from the edges of wetlands, if no buffers are required, to the extent that the critical root zone of trees in the buffer are not disturbed. The following may be allowed in the building setback area:
1. Landscaping;
 2. Uncovered decks;
 3. Roof eaves and overhangs;
 4. Pervious unroofed stairways and steps;
 5. Impervious ground surfaces, such as driveways and patios, provided that such improvements may be subject to water quality regulations.
- H. Stormwater management facilities are not allowed in wetland buffers, with the following exceptions:
1. Conveyance systems may be located in wetland buffers on a case-by-case basis if deemed necessary and approved by the Public Works and Planning Departments.
 2. Full dispersion of flow, as defined in BMC 15.42, (Stormwater Management) may be allowed in a wetland buffer if approved by the Public Works and Planning Departments.
 3. The above facilities or methods are allowed only if impacts to the buffer, resulting from their installation, are avoided or mitigated.
- I. Wetland hydrology shall not be adversely affected by stormwater management. Post-development wetland hydrology shall match pre-development wetland hydrology to the maximum extent feasible. An annual evaluation of hydrologic conditions, conducted by a qualified wetland professional or hydrologist, may be required to document hydrologic conditions.
- J. **Preference of Mitigation Actions.** Mitigation actions shall occur in the following order of preference after mitigation sequencing as specified in Section 22.08.20 *Mitigation Sequencing* has been applied:
1. Restoring wetlands on upland sites that were formally wetlands.
 2. Creating wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of non-native introduced species. This should only be attempted when there is a consistent source of hydrology and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is being designed.

3. Enhancing significantly degraded wetlands in combination with restoration or creation. Such enhancement should be part of a mitigation package that includes replacing the impacted area to meet appropriate ratio requirements.
- K. Specific Types of Mitigation. The following types of mitigation are fully defined in Chapter 22.10. In the interest of consistency, they are the definitions provided by the Army Corps of Engineers in its “Regulatory Guidance Letter 02-02”. They have also been adopted by the Washington State Department of Ecology. For the purposes of this Chapter, the mitigation categories are:
1. Restoration. This includes re-establishment or rehabilitation.
 2. Creation.
 3. Enhancement. Unlike restoration activities, enhancement results in a change of wetland functions, not a net gain of function or wetland acres.
 4. Preservation. Preservation in combination with other forms of mitigation is allowed. Preservation as the sole means of mitigation for wetland impacts may be allowed if the wetland area to be preserved meets all of the following criteria:
 - a. The preserved wetland and buffer are protected in perpetuity through a conservation easement, deed restriction, or dedication as a separate tract;
 - b. The area proposed for preservation is of high quality (scores between 51–100 points in the wetland rating system), is located in the same watershed, and is critical to the health of the watershed or sub-basin. Some of the other high quality features include:
 - i. Rare wetland types such as bogs, mature forested wetlands, estuaries, or vital wildlife habitat;
 - ii. High regional or watershed importance;
 - iii. Large size with high species diversity (plants and/or animals) and a high abundance;
 - c. Preservation is used as a form of compensation only after mitigation sequencing specified in Section 22.08.20 *Mitigation Sequencing* has been applied;
 - d. Creation, restoration, and enhancement opportunities have also been considered and preservation is the best mitigation option;
 - e. Preservation sites include buffer areas adequate to protect the habitat and its functions from encroachment and degradation;
 - f. The impacts are to a Category II, III, or IV wetland;
 - g. The preservation site is determined to be under imminent threat, specifically sites with the potential to experience a high rate of undesirable ecological change due to on- and/or off-site activities;

- h. Replacement ratios are listed in Table 4. Replacement ratios for preservation used in combination with other forms of mitigation are to be determined by the Director.

- L. **Location.** Site selection for compensatory mitigation shall be based on a location that will provide the greatest ecological benefit and have the greatest likelihood of success. Where feasible, mitigation shall occur in the same sub-basin as the permitted wetland alteration. However, if it can be demonstrated that a mitigation site in an alternative sub-basin or watershed would provide a greater ecological benefit and offer a more successful replacement of wetland functions and values, compensatory mitigation can take place in an alternative sub-basin or watershed.

- M. **Mitigation Banking.** Mitigation banking is encouraged if it provides a greater ecological benefit and provides a more successful replacement of wetland functions and values. This chapter does not expressly regulate mitigation banking, state guidelines for mitigation banking should be adhered to.

- N. **Mitigation Ratios.** The following ratios appearing in Table 4 and consideration of factors described in this section, shall be used to determine the relative amount of created, restored, or enhanced wetlands that will be required to replace impacted wetlands. The first number refers to the amount of wetland area providing mitigation and the second refers to the amount of wetland area impacted or altered.

Wetland Replacement Ratios

Table 4	Creation	Restoration (Rehabilitation)	Enhancement	Preservation
Category I 16.55.280 A (4) Mature forested wetland or 16.55.280 A (6) scores 70 points or more in wetland rating	6 : 1	8 : 1	24 : 1	N/A
Category I 16.55.280A all others	Case by case basis; may not be possible	Case by case basis; may not be possible	Case by case basis; may not be possible	N/A
Category II	3 : 1	4 : 1	8 : 1	16 : 1
Category III	2 : 1	3 : 1	6 : 1	10 : 1 Case by case basis
Category IV	1.5 : 1	1.5 : 1	3 : 1	5 : 1 to 10 : 1 Case by case basis

- 1. Provisions for Increasing or Decreasing Ratios. The Director may increase or decrease the ratios based on one or more of the following:

- a. Replacement ratios may be increased under the following circumstances:
 - i. Uncertainty exists as to the probable success of the proposed restoration or creation;
 - ii. A significant period of time will elapse between impact and establishment of wetland functions at the mitigation site;
 - iii. Proposed compensation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or
 - iv. The impact was an unauthorized impact.
- b. Replacement ratios may be decreased under the following circumstances:
 - i. The proposed mitigation actions are conducted in advance of the impact and are shown to be successful;
 - ii. Documentation by the applicant demonstrates that the proposed compensation actions will provide functions and values that are significantly greater than the wetland being impacted; or
 - iii. Documentation by the applicant provides more certainty that the proposed compensation action will be successful. Documentation could include extensive hydrologic data to support the proposed water regime.

O. Mitigation Report Requirements.

- 1. Prepared by a Qualified Professional. A wetland mitigation report shall be prepared by a qualified professional as defined in Chapter 22.10.
- 2. Report Requirements.
 - a. Detailed summary of the project, including the wetland and buffer impacts and the proposed mitigation, to appear in the beginning of the report;
 - b. Complete site characterization to include parcel size, soils, vegetation, hydrology, wildlife, and topography;
 - c. Complete site characterization of the proposed mitigation site to include parcel size, soils, vegetation, hydrology, topography and wildlife;
 - d. Goals, objectives, and performance standards of the mitigation proposal;
 - e. Monitoring, maintenance, and contingency plan;
 - f. Function assessment of wetland to be impacted;
 - g. Delineation report, with maps, of site to be impacted;
 - h. Map of development, with scale, overlaid on wetland delineation map; and
 - i. An estimate for surety for the entire project, including the required number of years of maintenance.

22.08.70 FLOOD HAZARD REDUCTION

A. Policies

1. Flood hazard reduction measures should not result in a net loss of ecological functions associated with the rivers and streams.
2. Flood hazard reduction measures should be consistent with comprehensive strategies that recognize the natural hydro-geological and biological processes of water-bodies and should seek to restore ecological functions within frequently flooded areas.
3. Development in frequently flooded areas should be prevented or removed to manage stormwater within the floodplain and to maintain or restore a stream system's natural hydrological and geo-morphological processes.
4. Bioengineered flood hazard reduction techniques are preferred and should be examined before structural measures are implemented.
5. The City should facilitate removal of artificial restrictions to natural channel migration, restoration of off-channel hydrological connections and recognize that seasonal flooding is an essential natural process.
6. Flood hazard reduction measures should be integrated with other regulations and programs, including (if applicable):
 - a. BMC 15.40, Drainage
 - b. BMC 15.42, Stormwater Management;
 - c. BMC 17.70, Building Codes
 - d. BMC 17.76, Construction in Floodplains;
 - e. BMC 16.20, Environmental Procedures
 - f. BMC 16.60, Clearing
 - g. BMC 16.70, Grading
 - h. BMC 16.55, Critical Areas Ordinance;
 - i. Title 18, Subdivision
 - j. Title 20, Land Use
 - k. The National Flood Insurance Program;
 - l. 2007 update of the Wastershed Master Plan; and
 - m. 2006 Bellingham Comprehensive Plan.

B. Regulations

1. When permitted, development within flood hazard (frequently flooded) areas shall achieve a no net loss of ecological function and shall comply with the applicable requirements in BMC 17.76 (Floodplains), BMC 22.09 and the following:

- a. New development or new uses in shoreline jurisdiction, including the subdivision of land, shall not be established when it would require flood hazard reduction measures within the channel migration zone or floodway.
- b. The uses and activities specified within BMC 22.08.10.B. 4, *Shoreline Buffers* may be appropriate and/or necessary within the channel migration zone or floodway provided they are:
 - i. Actions that protect or restore the ecosystem-wide processes or ecological functions.
 - ii. 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. Where such structures are allowed, mitigation shall address impacted functions and processes in the affected section of watershed or drift cell.
 - iii. 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.
 - iv. Modifications or additions to an existing non-agricultural legal use, provided that channel migration is not further limited and that the new development includes appropriate protection of ecological functions.
 - v. Development in incorporated municipalities and designated urban growth areas where existing structures prevent active channel movement and flooding.
 - vi. Measures to reduce shoreline erosion when it can be demonstrated that the erosion rate exceeds that which would normally occur in a natural condition, and that the measure does not interfere with fluvial hydrological and geo-morphological processes normally acting in natural conditions, and that the measure includes appropriate mitigation of impacts to ecological functions associated with the river or stream.
- c. New structural flood hazard reduction measures shall be allowed in shoreline jurisdiction only when:
 - 1) It can be demonstrated by a critical area report consistent with critical area report requirements as specified in Chapter 22.06 including a scientific and engineering analysis that it is necessary to protect existing development;
 - 2) It can be demonstrated that nonstructural measures are not feasible;

- 3) It can be demonstrated that there will be no net loss of shoreline ecological function including any mitigation required; and
 - 4) Appropriate vegetation conservation actions are undertaken consistent with BMC 22.08 and 22.09.
- d. Structural flood hazard reduction measures shall be consistent with an adopted comprehensive flood hazard management plan that has been adopted by the City that evaluates cumulative impacts to the watershed system.
 - e. 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, or as noted below. Provided, such flood hazard reduction projects may be authorized if it is determined that no other alternative to reduce flood hazard to existing development is feasible. The need for, and analysis of feasible alternatives to, structural improvements shall be documented through a critical area report including a geotechnical analysis.
 - f. New structural public flood hazard reduction measures, such as dikes and levees, shall be subject to the mitigation sequencing specified in this section and a federal Biological Assessment conducted by a federal agency responsible for reviewing actions related to a federally listed species. New structural public flood hazard reduction measures shall include the ability for the general public to access the shoreline unless said public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, the inability to mitigate impacts, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.
 - g. Removal of gravel, sediment and related materials from water bodies is prohibited except for fish and wildlife habitat restoration purposes or for flood management purposes. Removal of gravel for flood management purposes shall only be allowed if all the following conditions can be met:
 - i. The project is consistent with an adopted flood hazard reduction plan and with this Title;
 - ii. The project does not result in a net loss of ecological functions, including natural sediment transport disruption and resulting impacts to salmon spawning areas, and is part of a comprehensive flood management solution; and
 - iii. A critical area report including a geomorphologic analysis demonstrates that extraction has a long-term benefit to flood hazard reduction.

**22.08.80 CRITICAL AREA REGULATIONS FOR GEOLOGIC HAZARD AREAS
WITHIN THE SHORELINE JURISDICTION (THIS ENTIRE SECTION; OLCR)**

- A. Alterations of geologically hazardous areas or associated buffers may only occur for activities that:
1. Will not increase the threat of the geological hazard to adjacent properties beyond pre-development conditions;
 2. Will not adversely impact other Critical Areas;
 3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions; and
 4. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.
- B. Essential Public Facilities shall not be sited within geologically hazardous areas unless there is no other practical alternative.
- C. Erosion and Landslide Hazard Areas. Activities on sites containing erosion or landslide hazards shall meet the applicable standards of Chapter 22.08 and the specific following requirements:
1. **Buffer Requirement.** A buffer shall be established from all edges of landslide hazard areas. The size of the buffer shall be determined by the Director to eliminate or minimize the risk of property damage, death, or injury resulting from landslides caused in whole or part by the development, based upon review of and concurrence with a Critical Area report prepared by a qualified professional.
 - a. **Minimum Buffer.** The minimum buffer shall be equal to the height of the slope or 50 feet, whichever is greater, as measured horizontally away from the top and also away from the toe of the slope.
 - b. **Buffer Reduction.** The buffer may be reduced (via shoreline variance if within a shoreline buffer) to a minimum of 10 feet when a qualified professional demonstrates to the Director's satisfaction that the reduction will adequately protect the proposed development, adjacent developments, and uses and the natural shoreline resources and the subject Critical Area.
 - c. **Increased Buffer.** The buffer may be increased where the Director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.
 2. **Alterations.** Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a hazards analysis is submitted and certifies that:
 - a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions;

- b. The development will not decrease slope stability on adjacent properties; and
 - c. Such alterations will not adversely impact other Critical Areas.
3. Design Standards. Development within an erosion or landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this Chapter. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design standards are:
 - a. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code;
 - b. Structures and improvements shall be clustered to avoid geologically hazardous areas and other Critical Areas;
 - c. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;
 - d. Structures and improvements shall be located to preserve the most critical portion of the site and its natural land forms and vegetation;
 - e. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;
 - f. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and
 - g. Development shall be designed to minimize impervious lot coverage.
4. Vegetation Retention. Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited.
5. Seasonal Restriction. Clearing shall be allowed only from May 1 to September 30 of each year provided that the City may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved forest practice permit issued by the City or the Washington State Department of Natural Resources.
6. Utility Lines and Pipes. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to

- function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior.
7. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:
 - a. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazards areas downstream from the discharge;
 - b. Discharged at flow durations matching pre-developed conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater run-off in the pre-developed state; or
 - c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater run-off, and where it can be demonstrated that such discharge will not increase the saturation of the slope.
 8. Subdivisions. The division of land in landslide hazard areas and associated buffers is subject to the following:
 - a. Land that is located wholly within a landslide hazard area or its buffer may not be subdivided. Land that is located partially within a landslide hazard area or its buffer may be divided provided that each resulting lot has sufficient buildable area outside of, and will not affect, the landslide hazard or its buffer.
 - b. Access roads and utilities may be permitted via shoreline variance within the landslide hazard area and associated buffers if the City determines that no other feasible alternative exists.
 9. Prohibited Development. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.
- D. Seismic Hazard Areas. Activities proposed to be located in seismic hazard areas shall meet the standards of Performance Standards – General Requirements [Section 16.55.490].
- E. Mine Hazard Areas. Activities proposed to be located in mine hazard area shall meet the standards of Performance Standards – General Requirements [Section 16.55.490] and the specific following requirements:
1. Alterations. Alterations of a mine hazard area and/or buffer are allowed, as follows:
 - a. All alterations are permitted within a mine hazard area with a low potential for subsidence.
 - b. Within a mine hazard area with a moderate potential for subsidence and at coal mine by-product stockpiles, all alterations are permitted subject to a mitigation plan to minimize risk of structural damage using appropriate

- criteria to evaluate the proposed use, as recommended in the hazard analysis.
- c. Within a mine hazard area with a severe potential for subsidence, no structural activities shall be permitted without an effective settlement mitigation strategy.
2. Subdivisions. The division of land in mine hazard areas and associated buffers is subject to the following:
 - a. Land that is located within 200 feet of a mine hazard area with a severe potential for subsidence may not be subdivided. Land that is located partially within a mine hazard area may be divided provided that each resulting lot has sufficient buildable area that is 200 feet away from the mine hazard area with a severe potential for subsidence. Land that is located within a mine hazard area with a low or moderate potential for subsidence may be subdivided.
 - b. Access roads and utilities may be permitted within 200 feet of a mine hazard area with a moderate or severe potential for subsidence if the City determines that no other feasible alternative exists.
 3. Reclamation Activities. For all reclamation activities, including grading, filling, and stockpile removal, as-built drawings shall be submitted to the City in a format specified by the Director.

22.08.90 PUBLIC ACCESS

Public access includes the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline from adjacent locations. Examples include but are not limited to public parks, trails, piers and boardwalks, view overlooks, street ends, beaches, boating facilities, hand-carry craft launches / pullouts, and water-borne public transportation. The public access provisions below apply to all shorelines of the state unless stated otherwise.

A. Policies

1. Public access, in its variety of forms, should be promoted whenever feasible provided the result is no net loss of the shoreline's ecological function.
2. Public access should be provided to the shoreline as a primary use or as development occurs while protecting private property rights and public safety.
3. Public access should not compromise the rights of navigation and space necessary for water-dependent and water-related uses.
4. To the greatest extent feasible and consistent with the overall best interest of the state and the people generally, the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the state, including views of the water should be protected.

5. Property owners should implement a variety of techniques including acquisition, leases, easements and design and development innovations to achieve public access goals and to provide diverse public access opportunities.
6. Public access provisions should be consistent with all relevant constitutional and other limitations on private property including the constitutional nexus and proportionality requirements.

B. Regulations

1. When public access is provided, it shall not result in a net loss of existing shoreline ecological function.
2. When public access is required to be provided, it shall be provided between the development and the shoreline and may be provided within a required buffer area subject to the requirements and exceptions below, and shall be reviewed and approved on a case-by-case basis.
3. When public access is provided within a required buffer, said access shall demonstrate compliance with mitigation sequencing in BMC 22.08.20 *Mitigation Sequencing*.
4. Public access, whether developed as a primary use or as a required element of a permitted use, and where applicable, shall be provided and designed consistent with applicable and adopted public access plans such as the City of Bellingham Park, Recreation and Open Space Plan (2005), public access plans as specified in BMC 22.02.10 *General Goals and Policies*, applicable Neighborhood Plans and/or the Waterfront District Master Plan, as adopted.
5. When public access is required to be provided per an adopted plan as specified in 4, above, and is intended to be within a required shoreline buffer area, said access shall be designed and sited to minimize the amount of native vegetation removal, soil disturbance and disruption to existing habitat corridor structures and functions.
6. When public access is required per BMC 22.03.30 *Shoreline Environmental Designations* or is proposed as a stand-alone development project and there is not an adopted plan that specifies access and design for that specific access feature, the emphasis shall be on providing said access to the shoreline as opposed to along the shoreline and shall be analyzed on a case-by-case basis.
7. Public access shall be provided as development occurs except when:
 - a. The City is able to provide more effective public access in another location in close proximity through an approved / adopted public access planning process / document. For example, the City of Bellingham Park, Recreation and Open Space Plan (2005), an element of the 2006 Comprehensive Plan, the Waterfront Futures Group Framework and Action Plan, the Whatcom Creek Trail Master Plan or the Waterfront District Master Plan, upon adoption.

- b. It is demonstrated to be infeasible due to reasons of incompatible uses, safety, security or impact to the ecological function of the shoreline environment or due to constitutional or other legal limitations that may be applicable and consistency with the Governing Principles in BMC 22.01.40 *Governing Principles*. (WAC 173-26-186) (In determining the infeasibility, undesirability, or incompatibility of public access in a given situation, the City shall 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. A subdivision of land into four or fewer parcels for future single-family development, or development of individual single-family residences occurs.
 - d. The development consists solely of dredging, forest practices, clearing and grading, the construction of a private dock serving four or fewer dwelling units, flood control measures, the construction of in-water structures (except those developed specifically for public access), shoreline stabilization measures, signage, shoreline restoration and enhancement not associated with a substantial development permit, or lighting.
8. When public access is required to be provided it shall be designed per a plan that shall be reviewed and approved by the Planning and Community Development, Parks and Recreation and Environmental Resources Departments or per an adopted public access plan.
 9. Where public access is provided, a public access easement or dedication of said access area in favor of the City shall be required.
 10. In instances where public access and restoration has already occurred as part of prior action AND public access is still required per the applicable shoreline designation, additional public access may be allowed within a required buffer area provided it does not encroach any further into said buffer than the existing public access feature and does not displace or disrupt any elements of the prior restoration action. The type of public access provided in these circumstances shall be reviewed and approved on a site-by-site basis.
 11. In instances where public access is proposed in conjunction with a restoration project that includes work within a critical area or its buffer, the public access element may be provided within a critical area or its buffer provided it is the minimum necessary to provide an access function and shall be consistent with applicable requirements in this Chapter and BMC 22.09. The design and location of said access feature shall not compromise the ability of the restoration project's ability to achieve its intended objectives.
 12. Where there is an irreconcilable conflict between water-dependent shoreline uses or physical public access and maintenance of views from adjacent properties, the water-dependent uses and physical public access shall have priority, unless there is a compelling reason to the contrary.

13. Where there is an irreconcilable conflict between public access and shoreline ecological function, shoreline ecological function shall have priority, unless said public access is specifically identified in any of the plans specified in 4, above or as otherwise determined by the Parks Director. In this case, said public access shall demonstrate compliance with Section 22.08.20 *Mitigation Sequencing*.

22.08.100 SHORELINE NATIVE VEGETATION MANAGEMENT

A. Policies

1. The City should protect, conserve and establish native vegetation in order to protect and restore the ecological functions and ecosystem-wide processes performed within riparian and near-shore areas which include but are not limited to:
 - a. Protecting plant and animal species and their habitats;
 - b. Providing food sources for aquatic and terrestrial species;
 - c. Protecting and increasing the stability of river banks and bluffs;
 - d. Reducing the hazard of slope failures or accelerated erosion;
 - e. Reducing the need for structural shoreline stabilization measures;
 - f. Improving the visual and aesthetic qualities of the shoreline;
 - g. Protecting and improving water quality;
 - h. Providing continuous shade to the adjacent water-body; and
 - i. Providing habitat corridors parallel and perpendicular to the water body.
2. Installation and management of any native vegetation should be consistent with the City of Bellingham's 2004 Shoreline Characterization and Inventory (SCI) (APPENDIX A).

The SCI identified within each reach, the general vegetation types, their age, their distribution or coverage, and their ability to perform, or not, adequate riparian functions. Within each reach, the SCI identified the presence of noxious or non-native vegetation. Required native vegetation management plans and restoration projects should be consistent with the identified objectives in the functional analysis section of the pertinent reach in which a project is located.
3. New restoration plans and projects should be designed to incorporate native vegetation management plans that are similar to the standards as specified in B., below.
4. Native vegetation management plans for riparian areas should include a diversity of both conifer and deciduous tree species as well as non-invasive woody shrubs and as may be specified within the 2004 SCI for the subject reach on which a project occurs.

B. Regulations

1. For development on all shorelines, including within a required buffer area, the following shall apply:
 - a. Removal of or alteration to any native vegetation within the shoreline jurisdiction including within critical areas is strictly prohibited unless such activity is required for a permitted use or is determined to be a hazard tree as specified below.
 - b. Proposed removal of native vegetation for a permitted use shall be reviewed per the mitigation sequencing specified in BMC 22.08.20 *Mitigation Sequencing* of this Title.
 - c. The following standards shall apply for removal and replacement of existing native vegetation to all shoreline designations except as specified in iv, below:
 - i. Removal of native trees greater than 6 inches diameter at breast height (dbh) shall be replaced at a 3:1 ratio with native species and shall be re-established within any required buffer on the project site.
 - ii. Required buffer areas for riparian, marine and Lake Padden shorelines shall be installed with additional native vegetation that yields a total density mix of 2 native trees, 10 shrubs and groundcover where none is present per every 100 square feet. (EXCEPT as specified in iv, below.) New native vegetation to be installed within required buffers shall include species types that are capable of achieving the objectives specified in the 2004 SCI Functional Analysis per the subject reach.
 - iii. For development that includes expansion, during the life of the project, of more than 10% of an overall existing development footprint, except single-family residences, the requirements in i and ii, above, shall apply to every 100 square feet of additional footprint above the aforementioned 10% and shall be installed within any required buffer. (EXCEPT within the Urban Maritime shoreline designation and the Waterfront District 'water-oriented use' sub-areas.)
 - iv. There are no required buffers for those Urban Maritime and Waterfront District 'water-oriented use' sub-areas and hence no required native vegetation management standards apply.
 - d. For development or redevelopment, as defined in BMC 16.80, that occurs within the shoreline residential designation, native vegetation shall be installed in required buffer areas as required in subsection 3, below and BMC 16.80.
2. Within a critical area report as specified within Chapter 22.06 a Native Vegetation Management Plan for the project site including the associated buffer shall include the following information except as provided in 3 below.

- a. The predevelopment quantity, species type, distribution, approximate height of native vegetation, diameter at breast height (dbh) for trees only, successional stage of overall vegetative cover, potential native vegetation types, soil type / characteristics, a reference site and any existing hazard trees on the entire site. Said information shall be indicated and represented on a site plan drawn to scale and shall be reflected on an accompanying species and count matrix.
 - b. Identification of native vegetation to be removed and protected as a result of the proposed site plan.
 - c. Identification of any non-native or noxious vegetation.
 - d. Identification of the following; new trees to be installed and that specify installation size of a minimum height of 12 inches – 18 inches and minimum of ¼ inch caliper in size; shrubs shall be of at least four different varieties or those recommended by said professional that will accompany the potential native vegetation types; ground cover and a minimum of 4 inches of wood chip mulch distributed over the entire planting area.
 - e. Methodology for removal of any noxious or non-native vegetation, necessary soil amendments, installation and maintenance as described above.
 - f. Preparation of a financial surety (an assignment of funds or surety bond) that accounts for 150% of the cost of a five-year maintenance and monitoring plan that ensures a survival rate of 100% for trees and 85% for all other vegetation. The five-year maintenance and monitoring period shall commence at the time the required native vegetation has been installed, and inspected and verified by a representative from the Planning and Community Development Department.
 - g. ‘Volunteer’ native vegetation is allowed to be counted towards the survival rate percentage requirement as specified in f., above.
3. For Native Vegetation Protection Areas that are required for development or redevelopment within the shorelines of Lake Whatcom as required by BMC16.80 the critical area report shall contain the information specified in BMC 16.80.080 E.2.
- If the timing of required installation occurs between April 1st and October 1st of any given year, said installation may be postponed until after October 1st, of the same year, provided a written request for postponement is submitted by the proponent, the financial surety has been secured by the City and the Director has issued a letter of approval for said postponement of native vegetation installment.
4. Materials required in a. – e., above, shall be submitted, reviewed and approved by the Planning Department prior to issuance of any development permits on the site. (The Parks and Public Works Departments including the Environmental Resources Division shall also review and approve said plan where there is an interface or overlap with a feature that is within their

jurisdiction; adjacent to a trail or stormwater management facility.)

Installation of all required vegetation and submittal of the maintenance and monitoring report shall be completed prior to receiving any certificate of occupancy for the subject use.

5. As-installed reports shall be submitted to the Planning Department at the end of each year for the five-year maintenance and monitoring period to assure compliance.
6. Management and replacement of hazard trees shall adhere to the standards within BMC 16.55.080.D.7.
7. Unless otherwise stated, native vegetation management does not include those activities covered under the Washington State Forest Practices Act, except for conversion to other non-forestry uses and those other forest practice activities over which the City has authority.
8. As with all Master Program provisions, native vegetation management provisions apply even to those shoreline uses and developments that are exempt from the requirement to obtain a permit.
9. Like other Master Program provisions, native vegetation management standards do not apply retroactively to existing uses and structures.

22.08.110 WATER QUALITY, STORMWATER, AND NONPOINT POLLUTION

A. Policies

1. Shoreline master programs shall, as stated in RCW 90.58.020, protect against adverse impacts to the public health, to the land and its vegetation and wildlife, and to the waters of the state and their aquatic life, through implementation of the following principles:
 - a. Prevent impacts to water quality and stormwater quantity that would result in a net loss of shoreline ecological functions, or a significant impact to aesthetic qualities, or recreational opportunities.
 - b. Ensure mutual consistency between shoreline management provisions and other regulations that address water quality and stormwater quantity, including public health, stormwater, and water discharge standards. The regulations that are most protective of ecological functions shall apply.
 - c. Existing public stormwater management systems and facilities should be retrofitted and improved to incorporate Low Impact Development techniques whenever feasible and as specified in BMC 15.42.
 - d. Improving water quality is one of the primary goals within the Restoration Plan (APPENDIX B). The water quality improvement objectives should be considered and implemented into future watershed planning including prioritization and identification of retrofitting opportunities.
 - e. Drainage from single-family residences should not be tight-lined directly to or over shoreline bluffs or steep banks. Drainage, to the maximum

extent feasible, should be designed or retrofitted to include water-quality measures that filter out pollutants common to single-family residences such as phosphorus-leaching vegetative material in roof gutters, fertilizers and pesticides and should be discharged at a point that does not prematurely erode the shoreline or the face or toe of said bank / bluff.

- f. Boating practices on Lake Whatcom, Lake Padden and Bellingham Bay including operation and maintenance should be conducted in such a manner that prevents harmful substances from entering the water such as gasoline, two-stroke engine fuel, paint and wood conditioner and other boat related substances.

B. Regulations

1. Stormwater management facilities shall be developed in such a manner that there is no net loss of ecological function.
2. At a minimum, all phases of development shall be consistent with the requirements within BMC 15.42, as amended.
3. When permitted to be located within shorelines, critical areas or their required buffers, stormwater management facilities shall also be subject to the applicable requirements in Chapter 22.08. BMC 16.80 and BMC 15.42.
4. All phases of development shall provide an 'enhanced' level of stormwater management per the latest version of the Department of Ecology Stormwater Manual for Western Washington.
5. Low Impact Development (LID) techniques shall be considered and implemented to the greatest extent practicable throughout the various stages of development including site assessment, planning and design, vegetation conservation, site preparation, retrofitting and built-out management techniques.
6. Stormwater management facilities that are proposed within a required buffer for shorelines of Lake Whatcom shall not include any surface structures (except for catch basin covers or cleanouts) or require engineered shoreline stabilization.

22.08.120 SHORELINE MODIFICATIONS / STABILIZATION

Shoreline modifications are generally related to construction of a physical element such as a bulkhead, fill or vegetation removal in conjunction with development of a permitted use.

Shoreline stabilization measures are those mechanisms used to prevent erosion and deterioration of shoreline areas as a result of wave, wind, tidal or flooding actions. Shoreline stabilization measures can include but are not limited to examples of shoreline modifications above and, vegetation conservation, bio-technical measures, anchor trees or LWD placement, gabion and rip-rapped banks, retaining walls and sheet pilings.

A. Policies

1. New development should be managed and designed to eliminate the need for shoreline modification or stabilization.

2. Replacement of structurally engineered stabilization measures with the same new measures should not occur unless it is associated with a water-dependent use or there is a demonstrated need based on potential loss of a legally permitted use or primary structure or there is a threat to the viability of an existing water-dependent use.
3. Whenever feasible, bioengineered and soft-shore shoreline modifications and stabilization should be explored and implemented before reverting to structurally engineered techniques.
4. New structural shoreline modifications should only be allowed as an element of a water-dependent use or when it is demonstrated to be necessary to protect an allowed primary structure or a legally existing shoreline use that is in danger of loss or substantial damage.
5. Structural shoreline modification should be allowed if it is necessary for reconfiguration of the shoreline for mitigation or restoration purposes.
6. Enhancement of impaired ecological functions should be planned for where feasible and appropriate while accommodating permitted uses. As shoreline modifications occur, all feasible measures including mitigation sequencing should be incorporated to protect ecological shoreline functions and ecosystem-wide processes.
7. In order to maintain the integrity of shoreline bluffs and bank stabilization and to eliminate the necessity of shoreline stabilization, native vegetation removal should be minimized.
8. Surface water should be tight-lined to water treatment features that would avoid contamination of the water body from lawns and yard products and would avoid bank erosion and future sloughing.

B. Regulations

1. Bioengineered or 'soft' shoreline modification or stabilization techniques shall be considered prior to those techniques that are structurally engineered. It shall be demonstrated by a critical area report including a hydrologic analysis that a bioengineered measure cannot achieve the intended purpose before a submittal and analysis of a structurally engineered measure is proposed.
2. A bioengineered shoreline modification or stabilization measure(s) shall be considered concurrent with the mitigation sequencing in BMC 22.08.20 *Mitigation Sequencing* and submittal of an approved critical area report that demonstrates the following:
 - a. Natural shoreline processes including channel migration will be maintained. The project will not result in increased beach or stream-bank erosion, alteration to, or loss of, shoreline substrate within one-quarter mile of the project area, sediment supply and transport will be maintained, migration corridors and spawning areas will not be impacted and aquatic vegetation where it exists will not be minimized.

- b. Modification or stabilization techniques will not degrade critical areas or their associated buffers, especially Fish and Wildlife Habitat Conservation Areas.
 - c. The modification or stabilization technique does not prohibit or impede the natural processes of the water body including channel migration, floodwater conveyance and storage and beach acquisition/accretion.
 - d. The cumulative impacts of a singular shoreline modification on that particular water body shall be analyzed prior to granting of said modification technique.
 - e. The result of the measure would result in no net loss of shoreline ecological function in the riparian and/or near-shore areas.
3. Structural shoreline modification and/or stabilization shall be allowed if it is necessary for reconfiguration of the shoreline for mitigation, restoration or emergency purposes.
 4. In all other cases, a structurally engineered shoreline modification or stabilization measure, including a replacement, shall be allowed when all of the following are demonstrated:
 - a. Said modification or stabilization measure(s) are necessary as an element of a water-dependent use;
 - b. It can be demonstrated by a geotechnical / hydrologic report that a bioengineered modification or stabilization technique cannot sustain impacts of wave, current and tidal energy and erosion;
 - c. It is necessary to protect an existing primary structure demonstrated by a geotechnical analysis that concludes that a given structure is in danger of loss or damage from uncharacteristic or a sudden increase in erosional processes or poses a threat to health, safety and welfare of the general public (loss of yard, grass, landscaping and vegetation, pier abutment, accessory buildings or structures does not constitute an allowance for a structurally engineered measure);
 - d. For Shorelines on Lake Whatcom only; the structurally engineered measure shall be installed above the level of the OHWM; and
 - e. The requirements in 2.a. – e., above, have been met.
 5. Surface water shall be managed in such a manner that it does not create additional pollutant loading to an adjacent water body and/or cause accelerated bank erosion or bank sloughing.

22.08.130 ARCHAEOLOGICAL AND HISTORIC RESOURCES

A. Policies

1. The destruction of or damage to any site having historic, cultural, scientific, or educational value as identified by the appropriate authorities, including affected Indian tribes, and the Office of Archaeology and Historic

Preservation, should be prevented.

B. Regulations

1. Archaeological sites located both in and outside shoreline jurisdiction are subject to RCW 27.44 (Indian Graves and Records) and RCW 27.53 (Archaeological Sites and Records).
2. Development or uses that may impact such sites shall comply with WAC 25-48 as well as the requirements within BMC 17.90 (Historic Preservation Ordinance) and the requirements within this Title, where applicable.
3. Developers and property owners shall immediately stop work and notify the City, the Office of Archaeology and Historic Preservation and affected Indian tribes if archaeological resources are uncovered during excavation.
4. Development that is proposed in areas documented to contain archaeological resources shall have a site inspection or evaluation by a professional archaeologist in coordination with affected Indian tribes. Said evaluation shall be submitted to the Planning Department prior to the issuance of any shoreline permit required for said development.

22.08.140 DREDGING AND DISPOSAL

Dredging is the removal of material from a stream, river, lake, bay or other water body. The purposes for dredging might include navigation, remediation of contaminated materials, or material mining. Materials generated from navigational and remedial dredging may be suitable for beneficial reuse (e.g., construction of habitat features or construction of uplands) or may require disposal at appropriate disposal facilities.

A. Policies

1. Dredging that involves remediation of contaminated materials should be consistent with the applicable policies within RCW 70.105D and the standards within WAC 173-204 – Sediment Management Standards.
2. Dredging within aquatic areas for the primary purpose of acquisition of fill material should not be allowed.
3. Navigational dredging should be permitted provided that it minimizes adverse impacts on critical area habitats, shoreline ecological function and water quality.
4. Dredging and beneficial reuse should be consistent with the guidance of the Bellingham Bay Demonstration Pilot Project Comprehensive Strategy and its associated Habitat Restoration Documentation Report, as amended or updated.
5. Where dredging occurs within marine waters for any purpose, except as specified in 2., above, the result should be suitable for establishment of a variety of aquatic organisms including salmonids and forage fish, with guidance provided by the Washington State Department of Fish and Wildlife, the United States Army Corps of Engineers and the City's Environmental Resources Department.

6. When maintenance dredging is necessary within the City's freshwater systems in order to alleviate flooding, subsequent property damage and excessive fine sediments that prevent creation of redds, dredged material should be replaced with gravel/cobble that is suitable for anadromous fish spawning and rearing with guidance provided by the Washington State Department of Fish and Wildlife and the City's Environmental Resources Department, provided it does not interrupt or adversely affect the system in terms of capacity and velocity.
7. When dredging occurs within marine waters, sufficient notice should be publicized for those individuals or groups who crab, fish or manage aquaculture activities so that proper adjustments to schedule, timing or practices can be made.

B. Regulations

1. Dredging that involves remediation of contaminated materials shall be consistent with the policies within RCW 70.105D and the applicable standards within WAC 173-204 – Sediment Management Standards and all other applicable federal, state and local regulations.
2. Dredging requires a shoreline conditional use except for maintenance dredging, dredging to implement a hazardous substance remedial action under RCW 90.58.355 or, for habitat purposes pursuant to #7 below. Dredging of contaminated materials shall be consistent with the conditional use criteria specified in BMC 22.06.50.C. 1 – 6, *Conditional Uses*, and shall be demonstrated by the applicant / owner to be in compliance with said criteria.
3. Dredging, for any purpose, that occurs within the waters of Bellingham Bay or Lake Whatcom shall comply with the applicable requirements in BMC 22.03, Shoreline Designations; BMC 22.04, Shorelines of Statewide Significance; and BMC 22.08, General Policies and Regulations.
4. Dredging within aquatic areas for the primary purpose of acquisition of fill material is prohibited unless for uses as specified in 5., below.
5. Beneficial reuse of dredged material shall be consistent with the guidance of the Bellingham Bay Comprehensive Strategy and its associated Habitat Restoration Documentation Report, as amended or updated.
6. Dredging within the City's freshwater shorelines shall only be allowed if the completion of the action results in improved ecological functions and processes.
7. Dredging for the purposes of habitat enhancement, *invasive species control* and/or restoration when no contaminated material is disturbed is allowed and shall be subject to the applicable requirements in this Title.

22.08.150 IN-WATER STRUCTURES

In-water (marine and freshwater) structures include but are not limited to jetties, pilings, fish-

ladders, mooring dolphins and buoys, breakwaters, groins, weirs, baffles, bridge abutments, gauges and tide gates.

A. Policies

1. In-water structures should be designed to minimize impacts to ecological functions of the water body including but not limited to water quality, anadromous and forage fish habitat, spawning and rearing areas, migration, and passage.
2. In-water structures should not adversely affect hydrologic function including light penetration within the photic zone, sediment transport and current and water circulation patterns.
3. The location and planning of in-water structures should give due consideration to the full range of public interests and environmental concerns.
4. In-water structures should comply with the requirements of applicable state and federal permitting agencies with jurisdiction and consider the recommendations of other non-regulatory organizations such as tribal nations and the Puget Sound Action Team.
5. Analysis of cumulative impacts of in-water structures should be conducted such that the connectivity between habitats for migrating salmonids is maintained and restored where feasible.

B. Regulations

1. In-water structures shall not be placed within critical areas unless allowed per the provisions of this program.
2. New in-water structures shall be designed and constructed such that the result is no net loss of shoreline ecological function. New in-water structures shall not adversely affect hydrologic function, ability for light to penetrate within the photic zone, sediment transport and water-circulation patterns.
3. In-water structures that are associated with a water-dependent use are allowed and shall be subject to the requirements in this Title.
4. When in-water structures require new shoreline modification or stabilization, those features shall be designed consistent with the requirements within BMC 22.08.120 *Shoreline Modification / Stabilization*.
5. Creosote, arsenic and pentachlorophenol treated in-water structures shall be prohibited.
6. New in-water structures shall comply with the permitting requirements of the applicable agencies for such features including but not limited to the Washington State Department of Fish and Wildlife, the United States Army Corps of Engineers, the Department of Ecology, the Department of Natural Resources and the United States Coast Guard.

7. In-water structures that are an element of a larger project that would require removal of existing mature native vegetation shall not be permitted unless there is a substantial public benefit or mitigation provided.
8. In-water structures shall not impair or obstruct existing navigation channels or the public's use of surface water or shoreline areas.
9. In-water structures shall not impair or conflict with navigability of water-dependent uses.
10. In-water structures shall not impair the public's ability to have physical or visual access to the shoreline or obstruct scenic vistas.
11. Mooring buoys shall only be located in aquatic areas where there would be no adverse impact to aquatic resources and within areas that are managed by a local entity (City or Port of Bellingham) via an agreement with the Washington State Department of Natural Resources (DNR).

22.08.160 CLEARING AND GRADING

Clearing and grading are permitted as an element of development for an authorized activity or as otherwise allowed in this Title.

A. Policies

1. Disturbance to and removal of native soils should be minimized within shorelines.
2. Uses and site design should incorporate protection or reestablishment of the maximum amount of native vegetation on a particular site.
3. Vegetation that is removed as part of a permitted use should be reestablished within a required buffer.

B. Regulations

1. Clearing, grading, and shoreline native vegetation protection and removal shall comply with the standards in BMC 22.08.
2. Disturbance to soils shall adhere to the following standards:
 - a. Land clearing and fill and grade activity that is associated with a permitted use that occurs within a required buffer shall only be allowed between May 1 and October 1 unless the City extends or shortens the time window on a case-by-case basis or as determined based on actual weather conditions.
 - b. Filling or grading including excavation within or modification to a critical area is only permitted as part of an approved activity subject to the applicable requirements within this Title.
 - c. The soil duff layer (the matted, partly decomposed organic surface layer of forest soils) shall remain undisturbed to the maximum extent possible. Where feasible any soil disturbed shall be redistributed to other areas of the project site.

- d. The moisture holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltration capacity on all areas of the project area not covered by impervious surfaces.
- e. Erosion control that complies with the requirements in BMC 15.42 shall be provided.

22.08.170 LANDFILL

Landfill is the creation of dry upland area by the placement or deposition of sand, soil, gravel or *other* sediments into a water body, *floodplain, or wetland*.

A. Policies

1. Landfills should not be permitted within critical areas.

B. Regulations

1. Landfills within shorelines shall only be permitted as an element of a water-dependent use and must be demonstrated to be consistent with the substantive requirements in BMC 22.06.50.C. 1. – 6, *Conditional Uses*, BMC 22.04 and BMC 22.08 where applicable.,
2. Landfills, where permitted, shall include restoration and/or enhancement of ecological function within the shoreline / aquatic area consistent with the restoration objectives within the Restoration Plan (APPENDIX B - Table 2) and the specific projects (where applicable) specified in APPENDIX B -Table 3; and shall provide public access where feasible per BMC 22.08.90 *Public Access*.
3. Landfills shall be constructed in accordance with applicable state and federal laws.
4. Landfills that are part of a hazardous substance remedial action shall be subject to the requirements within BMC 22.05.20. B.1.q, *Exemptions*.
5. Placement of material for the sole purpose of habitat remediation shall be consistent with the restoration and conservation policies of this Program and the objectives in the Restoration Plan - APPENDIX B.

22.08.180 LIGHTING

Lighting within shorelines and lands adjacent to shorelines if not properly managed can have an adverse impact on the ecological function, most notably the migration patterns of salmonids and terrestrial species.

A. Policies

1. Lighting should be minimized within shorelines, especially within close proximity to the water.

B. Regulations

1. Development proposals within shorelines shall include a master lighting plan (MLP) that complies with the following standards:

- a. Location of all outdoor lighting and building security lighting and associated wattages;
 - b. Pole heights that shall not exceed 20 feet in height;
 - c. Fixture designs for all outdoor lighting shall shield the source or bulb of the light; and
 - d. Photometric plan shall not exceed a strength of 1 foot-candle at the property lines.
2. Where lighting is required for new streets, driveways or public access features, the lowest level lighting possible shall be used and shall be compliant with safety and Crime Prevention through Environmental Design (CPTED) standards.
 3. Said lighting plan shall be reviewed and approved by the Planning and Community Development Department as a component of the shoreline permit application.

22.08.190 PARKING

Parking includes private on-site, public lots/structures and on-street, loading and unloading areas. Parking within shorelines is a low priority. Converting land within shorelines for the sole use of vehicles is not an efficient land use.

A. Policies

1. Parking as a primary use (stand-alone use) within the shoreline jurisdiction should be prohibited.
2. Parking should not be allowed between development and the adjacent water body.
3. Parking for permitted uses should be underground or under-building.
4. Visual impacts of surface parking facilities should be effectively mitigated. Parking for permitted uses within the shoreline jurisdiction (but not including parking that is underground or under-building) should be minimized and screened from adjacent public access and buffer areas.
5. Where surface parking is developed within the shoreline jurisdiction, Low Impact Development techniques should be implemented.
6. Lighting for parking areas should be minimized.
7. Loading and unloading zones, especially those inherent to a permitted use, parking for ADA and public parking on improved public rights-of-way, should be allowed when within shoreline jurisdiction.

B. Regulations

1. Parking as a primary or stand-alone use shall not be permitted within shorelines.

2. Parking, including parking for ADA and loading / unloading zones, shall not be located within a required shoreline or critical area buffer.
3. Required parking (per BMC 20.12) for a permitted use on shorelines shall not be permitted between the development and the adjacent shoreline with the exception of parking that is required for water-dependent uses.
4. Parking for boating facilities including areas for loading and unloading and required ADA parking may be provided within existing buildings or provided within shoreline jurisdiction but not within a required buffer and shall be subject to the requirements in 9., below.
5. Loading and unloading zones that are an inherent element of a water-dependent or a water-related use are allowed between the shoreline and the use area when it is adjacent to the shoreline but, when feasible, should not be adjacent to a required buffer.
6. Parking for a permitted use when provided underground or partially under-building shall not be allowed in a required buffer.
7. Where parking areas are located adjacent to a required buffer the parking area shall be setback from the required buffer an additional 15 feet for installation of landscape screening.
8. Required landscaping, as specified in 7 above, shall include a mix of native trees and shrubs that effectively screen headlights from vehicles to the abutting buffer area. Gaps in screening are permitted to allow access to viewing areas or public areas where applicable.
9. When surface parking areas for permitted uses are designed and constructed, they shall achieve the following objectives:
 - a. A safe and signed pedestrian entry point to an established or proposed shoreline trail / walkway or viewing area for physical and visual access to the shoreline;
 - b. Landscape screening around the perimeter and within the parking area to soften edges and break up large parking areas;
 - c. Implementation of Low Impact Development techniques for stormwater management; and
 - d. Located as far from a required shoreline or critical area buffer as possible.
10. Public parking on public street ends that are within shorelines but outside of required buffers is allowed.

22.08.200 SIGNAGE

Signage within the shoreline zone can present adverse impacts in terms of lighting and view obstruction. Signage for or associated with private development should be located outside of the shoreline jurisdiction.

A. Policies

1. If no feasible alternative exists for signage location, then signage should be minimized in terms of size, height and lighting.
2. Directional / wayfinding signage (e.g., public access, boat launch and public fishing) and interpretive signage (historical and cultural) should be permitted in coordination with public access and recreation amenities.

B. Regulations

1. Signage shall not interfere or block any existing public view or public view corridor within shoreline areas.
2. Signage shall not be permitted over water with the exception of *attached, façade-flush* signage on buildings that are presently located or permitted over-water.
3. Billboards are prohibited within shorelines.
4. Freestanding signage, other than real estate signage as specified above, within shoreline jurisdiction is limited to 32 square feet. Height of said freestanding signage is limited to 12 feet from existing grade.
5. Roof signage is strictly prohibited within shorelines.
6. Signage within the shoreline jurisdiction shall only be indirectly lit.
7. Signage mounted flush on building facades within shoreline jurisdiction shall not exceed 32 square feet. One sign per building wall is permitted.
8. All other signage shall comply with applicable regulations in BMC 20.12.040.
9. Directional / wayfinding signage (e.g., public access, boat launch and public fishing) and interpretive signage (historical and cultural) should be permitted in coordination with public access and recreation amenities.

22.08.210 STORMWATER MANAGEMENT FACILITIES

Stormwater management (detention and treatment) facilities are necessary elements of development. If designed correctly and managed properly they can produce multiple benefits within the shoreline jurisdiction.

A. Policies

1. Stormwater facilities should not be located in areas where there would be an adverse impact to existing shoreline ecological functions.
2. Stormwater management facilities should be designed to incorporate Low Impact Development techniques whenever possible.

B. Regulations

1. Stormwater management facilities shall be located outside of critical areas and their required buffers except as specified in BMC 22.08.10.B.4, *Shoreline Buffers* and shall be subject to the requirements in BMC 22.08.120 *Shoreline Modification / Stabilization*.

2. Stormwater management facilities shall be subject to the policies and regulations in BMC 22.08.110 *Water Quality, Stormwater, and Nonpoint Pollution* of this Title.
3. Stormwater management facilities shall provide a minimum of enhanced treatment as defined by the latest version of the Department of Ecology Stormwater Manual for Western Washington, and as further specified in BMC 15.42, as amended, and per BMC 22.08.110 *Water Quality, Stormwater, and Nonpoint Pollution*.
4. When stormwater management facilities are proposed within shorelines and adjacent to required buffer areas, they shall be designed to provide additional riparian vegetative cover and increase or improve existing habitat corridors including habitat for anadromous fish.
5. New stormwater conveyance facilities (outfalls) shall not be constructed within required shoreline or critical area buffers unless no other feasible alternative exists.
6. Individual shoreline permits shall include a requirement that an applicant prepare a stormwater management facility maintenance program for a five-year period that includes the following elements:
 - a. Frequency and detail of maintenance of the facilities (this includes but is not limited to catch basin insert and vault cartridge replacement, removal of noxious vegetation, pipe and overflow clean-out and outfall and diffuser maintenance);
 - b. Copy of signed and implemented contract verifying the entity that will perform the maintenance action and the frequency of the maintenance; and
 - c. A maintenance report shall be submitted to the Planning Department each year for five years from the date of issue of the original shoreline permit.

22.09 USE POLICIES AND REGULATIONS

PURPOSE AND INTENT: The policies and regulations within this chapter shall apply to the specific common uses and types of development to the extent they occur within shoreline jurisdiction. These policies and regulations are intended to achieve no net loss of shoreline ecological function. Each use or development type includes a brief explanation and examples of the subject use, policies which are intended to guide and interpret the accompanying regulations, and then the regulations themselves.

22.09.10 AQUACULTURE

Aquaculture is the commercial farming or culturing of food fish, shellfish or other aquatic plants and animals in marine waters, estuaries, inlets, lakes, streams and other natural or artificial water bodies. Non-commercial projects and activities that involve the enhancement or restoration of native biota are addressed in Ch. 22.09.100, *Restoration and Conservation*. Aquaculture is a preferred water-dependent use and should be encouraged to locate where it is not in conflict with other preferred water-dependent uses and where it includes specific conditions to protect ecological function.

A. Policies

1. Aquaculture shall not be located in areas where it would be detrimental to the ecological functions and processes of the aquatic system.
2. Aquaculture should only be utilized for shellfish, algal and plant species.
3. Aquaculture for finfish should not be allowed.
4. Aquaculture should not preclude the appropriate use of adjacent uplands.
5. Aquaculture should not interfere with established navigation channels and other water-dependent uses.

B. Regulations

1. Aquaculture shall not be located in areas where it would be detrimental to shoreline ecological functions and processes of the aquatic system, especially in near-shore areas where water quality, aquatic vegetation and co-occupying species habitats and migration corridors could be impacted.
2. Aquaculture shall meet the applicable requirements of the Washington State Department of Fish and Wildlife for said facilities.
3. Aquaculture shall only be utilized for shellfish, algal and plant species.
4. Aquaculture shall not preclude the appropriate use of adjacent shorelines or be detrimental to visual access of the water body.
5. Aquaculture activities within the City shall not unduly interfere with the navigability of the water body for industrial, commercial or personal watercraft.
6. Specifically, commercial net pens for finfish within the City and/or on or above state owned aquatic lands are prohibited.

7. Harvest of wild stock free swimming fish, shellfish not artificially planted or maintained is a fishery, and/or harvest of wild stock geoducks on state owned aquatic lands is not considered aquaculture and does not require a shoreline substantial development permit.

22.09.20 BOATING FACILITIES

Boating facilities are water-dependent or water-related uses which are a preferred use on shorelines. Bellingham Bay has a variety of boating facilities that are both privately owned commercial and industrial facilities and those that are available to the general public. Squalicum Harbor and Marina supply the majority of boating facilities within Bellingham Bay. Boating facilities are also located in the Fairhaven area including the Fairhaven Marine Industrial Park, shipyard and boat launch.

Boating facilities can include uses such as marinas (for more than 9 motorized craft), shipping and ferry terminals, transient mooring facilities, boat-ramps, gatehouses, upland dry-stack storage, boat construction and maintenance facilities. Shipping terminals, ferry terminals, boat construction and maintenance facilities, and similar activities must also meet the provisions for Industrial Development Ch. 22.09.50 Industrial Development or Commercial Development Ch. 22.09.30 as determined on a case-by-case basis. Small commercial facilities (nine vessels or less) shall also meet the provisions for Commercial Development. Small non-commercial facilities (nine vessels or less) shall meet the provisions of PIERS, GANGWAYS, FLOATS AND PILINGS CH 22.09.60 Piers, Floats, Pilings – Lake Whatcom and Lake Padden - .70 Piers, Floats, Pilings within Marine Shorelines.

A. Policies

1. New boating facilities should include restoration of ecological functions within the riparian and near-shore environment, especially for migrating salmonids and other aquatic species.
2. New boating facilities should be designed, constructed and managed such that there is no net loss of shoreline ecological function.
3. In order to supply anticipated demand for a twenty-five year period, new boating facilities should be designed to include upland boat storage facilities where maintenance and adjacent berthing can take place.
4. New boating facilities should provide the maximum amount of public access in a variety of forms. (Trail, view overlooks, transient and hand-carry craft moorage.)
5. New boating facilities should be located in areas where other water-oriented uses presently exist or could be established within close proximity.
6. New boating facilities should minimize the amount of associated parking and impervious surface within the shoreline jurisdiction.
7. New in-water boating facilities should implement mitigation sequencing in order to protect the natural hydrological function of the water body or

viability of aquatic organisms, including their growth, reproduction, and migration.

8. New boating facilities should not include covered moorage and boathouses.
9. New boating facilities that require dredging for proper depth and/or removal of contaminated sediments should be consistent with all federal and state requirements for management of contaminated sediments and BMC 22.09.20 *Boating Facilities*.
10. Existing boating facilities, when retrofitted or as upgrades are necessary, should improve the existing ecological function by minimizing impacts to water quality, restoring hydrologic function and maintaining the viability of aquatic organisms.

B. Regulations

1. Boating facilities and necessary supporting elements shall comply with the applicable requirements in Chapters 22.08 and 22.09.
2. Boating facilities shall be designed and located in areas that are previously disturbed or where impacts to existing ecological function can be avoided or minimized and there is an opportunity for shoreline ecological function to be reestablished and / or restored.
3. Boating facilities shall be designed to provide opportunities for aquatic ecological functions to establish and succeed.
4. In order to supply anticipated demand for a twenty-five year period, new boating facilities shall be designed to include upland boat storage facilities where feasible in which maintenance and adjacent berthing can take place.
5. Boating facilities shall be designed to provide public access in a variety of forms that draw large numbers of citizens to the shorelines subject to the exceptions in Section 22.08.90 B. 7, *Public Access*. Access forms (pathway, overlook, beach, kayak launch etc.) and locations, when applicable, shall be consistent with those specific opportunities identified in the WFG Framework Plan and the City of Bellingham Park, Recreation and Open Space Plan (2005) or the Waterfront District Master Plan, upon adoption.
6. Boating facilities shall be designed such that adjacent water-oriented uses are not compromised or adversely impacted including proximity to waters that have appropriate depth for water-dependent commercial and industrial uses, and physical and visual access to the shoreline for the general public is provided and/or enhanced.
7. New boating facilities shall include opportunities for transient moorage and motorized and hand-carry craft launch.
8. Boating facilities should be managed consistent with the Department of Ecology document titled "Resource Manual for Pollution Prevention in Marinas," May 1998, Publication #9811.

9. Boat ramps and other launching facilities shall be designed and constructed such that they result in no net loss of shoreline ecological function and shall not conflict with existing or planned public access opportunities.
10. Parking areas associated with boating facilities shall minimize the amount of associated parking and impervious surface within the shoreline jurisdiction and should not disrupt planned public access or habitat restoration objectives. Required ADA parking and personal loading / unloading areas shall be permitted within shorelines but not within a required buffer.
11. Boating facilities which require new or replacement of existing shoreline modification or stabilization shall comply with the applicable requirements in Section 22.08.120 *Shoreline Modification / Stabilization*. Armoring shall use bioengineering and soft-shore techniques unless heavy wave action, tidal influence or currents would compromise the integrity of said non-structural technique.
12. Over-water boathouses shall not be allowed in new boating facilities.
13. Parking ratios for marinas shall be a minimum of .5 parking spaces for each new moorage slip unless a lower ratio can be demonstrated to supply anticipated demand. Parking areas for vehicles and boat trailers for boat launch/ramps. shall be based upon an analysis of demonstrable need submitted by the applicant and determined by the Director.

22.09.30 COMMERCIAL DEVELOPMENT

Commercial development on the shorelines should be designed to bring large numbers of citizens to the shoreline.

A. Policies

1. Commercial development should be designed and constructed in such a manner as to result in no net loss of ecological function including implementation of Low Impact Development techniques to the maximum extent feasible.
2. Where necessary depth for commercial or recreational vessels is adjacent, water-dependent commercial development should be given priority over commercial water-related and water-enjoyment uses.
3. Where necessary depth for commercial vessels is adjacent, water-oriented commercial development should maximize physical and/or visual public access opportunities to the shorelines.
4. Public access, as specified above, should not be provided where it is demonstrated to conflict with the intended use for reasons of safety, security, or carrying out the use itself.
5. When public access to the shorelines is provided as an element of a commercial development, it should not adversely impact the ecological function of the shoreline.

6. Non-water-oriented uses should utilize existing structures on the south side of the Whatcom Waterway between the historic GP log pond and Roeder Avenue subject to a specified lease or length of operation limitation.
7. Non-water-oriented commercial uses within certain areas of the Waterfront District shoreline designation specifically identified in BMC 22.03.30.F.4. a. and b, *Shoreline Environmental Designations*, should be allowed to locate and operate on a temporary basis within existing structures.
8. Where necessary depth for commercial vessels is not viable, water-related and water-enjoyment commercial development should take advantage of its shoreline location by locating and designing the use to bring a large number of citizens to the shorelines.
9. Where necessary depth for commercial vessels is not viable, including along freshwater systems, non-water-oriented commercial development should provide public access to the shoreline provided it does not impact the riparian and ecological function of the shoreline and should include restoration of the riparian and near-shore zones whenever feasible.

B. Regulations

1. Water-dependent commercial development shall not interfere with or compromise the operation of existing adjacent water-oriented development or decrease opportunities for the general public to access adjacent shorelines.
2. Water-oriented commercial development shall provide opportunities for the public to access the shoreline adjacent to the subject use. Where public access has already been provided as part of a prior project or action, said use shall be designed and constructed to be oriented towards the shoreline. ('Oriented towards the shoreline' means that the active space for customers and passers-by is facing or directed towards the shoreline. Active space does not include service entries or load / unload areas.)
3. Non-water-oriented commercial uses shall provide opportunities for the general public to access the shoreline or to access an existing or proposed adjacent public access amenity as required per BMC 22.03 and the standards in BMC 22.08.90 *Public Access*. (For example, provide a link to a view overlook, trail, park or open space, recreation area or public access easement.)
4. Non-water-oriented commercial uses that are located on shorelines where necessary depth for commercial vessels is not available, shall be required to improve the existing ecological function consistent with the applicable requirements in BMC 22.03 and as specified in BMC 22.08.
5. Commercial development shall implement a range of Low Impact Development techniques to minimize the impacts on riparian, near-shore and upland areas.
6. Parking for commercial uses on marine shorelines shall not be located between the development and the shoreline. Required parking for ADA and

- personal load/unload zones are allowed within shorelines but not within a required buffer.
7. Parking for commercial uses on freshwater shorelines shall not be permitted between development and the shoreline. Required parking for ADA and personal load/unload zones are allowed within shorelines but not within a required buffer.
 8. Non-water-oriented commercial uses located on shorelines shall be designed and oriented towards the shoreline. It is not required that the only main entrances to buildings and uses must be oriented towards the shoreline, but there shall be opportunities for employees and patrons to enjoy the shoreline location.
 9. Non-water-dependent loading and service areas shall not be located between the shoreline and the development.
 10. Commercial development shall implement site lighting techniques that minimize the amount of spill-over into riparian and aquatic environments. These techniques shall include but are not limited to reduction of pole heights and locations, fixture designs including shading / shielding devices, bulb types and reduced wattages.
 11. Non-water-oriented commercial uses shall not be located on shorelines when adjacent to waters that have necessary depth for commercial or recreational vessels unless they meet at least one of the criteria below:
 - a. The commercial use is part of a shoreline mixed-use project that includes a water-dependent use;
 - b. The proposed use is within the Waterfront District shoreline designation and specifically identified in BMC 22.03.30.F.4.a. and b, *Shoreline Environmental Designations*;
 - c. The commercial use is within the shoreline jurisdiction but physically separated from the shoreline by a significant, separate property, public right-of-way, railroad right-of-way, or existing conforming use; and
 - d. The proposed is located in Reach 10 or 12 having an Urban Conservancy shoreline designation.

22.09.40 FOREST PRACTICES

Forest practices within the City along shorelines would occur as a conversion of forested areas to a certain level of urban development (Class IV – General per the Forest Practices Act, RCW 76.09).

A. Policies

1. Forested areas within shorelines should be preserved and protected.

B. Regulations

1. Conversion of forested areas to urban development shall implement the mitigation sequencing as specified in BMC 22.08.20 *Mitigation Sequencing* of this Title.
2. Forest practices for the sole purpose of timber harvesting shall not be allowed in shorelines.
3. Any forest practice activity on shorelines of statewide significance shall comply with RCW 90.58.150.

22.09.50 INDUSTRIAL DEVELOPMENT

The Bellingham waterfront has three federal shipping channels that are intended specifically for water-borne commerce and industry. Water-dependent industrial uses are preferred and encouraged within these shoreline areas.

A. Policies

1. Where necessary depth for industrial uses is adjacent, water-dependent industrial development should be given priority over water-related industrial uses provided, however, that in both instances, they do not conflict with planned or existing public access and habitat restoration.
2. Expansion or redevelopment of water-dependent industrial facilities and areas should be encouraged, provided it will not create a net loss of shoreline ecological function and processes.
3. New water-dependent industrial development should incorporate physical and/or visual public access to the water except when such access causes significant interference with operations or hazards to life or property.
4. Water-dependent industrial uses located on property in public ownership should provide public access to the shoreline whenever feasible provided the requirements in BMC 22.08.90 *Public Access* are met.
5. Water-dependent industrial development and redevelopment should be consistent with all of the following; Waterfront Futures Group Framework Plan, Bellingham Bay Demonstration Pilot Project Comprehensive Strategy and Land Use Documentation Report and the Port of Bellingham's Comprehensive Scheme of Harbor Improvements, where applicable.
6. On upland industrial sites, environmental cleanup and/or remediation should be implemented to serve a variety of future land uses.
7. Water-dependent industrial development should be located only on shorelines where commercial navigability is adjacent to the proposed use.
8. Water-dependent and water-related industrial redevelopment is encouraged. Water-related uses should not adversely impact the shoreline ecological function or critical areas and should provide access to the general public.
9. New non-water-oriented industrial development should only be allowed on shorelines in conjunction with or in support of permitted uses and said uses should provide public access to the adjacent shoreline.

10. New water-dependent or water-related industrial uses should, when feasible, take advantage of and utilize legally established existing industrial facilities.

B. Regulations

1. Water-dependent and water-related industrial uses shall comply with the applicable requirements in this Title.
2. Water-dependent and water-related industrial development shall not degrade the ecological function of the shorelines or disrupt existing or proposed public access amenities.
3. Where shoreline stabilization or in-water structures are required to establish a water-dependent industrial use, the requirements in BMC 22.08.120 *Shoreline Modification / Stabilization* shall apply as well as the following:
 - a. Improve existing ecological function especially viability for migrating salmonids and other aquatic species.
 - b. Manage and/or remediate contaminated sediments in accordance with state and federal laws.
 - c. Provide public access to the water body where safety and operation of use are not compromised.
 - d. Minimize shading and water surface coverage.
4. Water-dependent and water-related industrial uses shall provide public access to the shoreline per the standards in BMC 22.08.90 *Public Access* provided said access does not compromise the integrity or operation of the use, does not threaten the safety and welfare of the general public and does not interfere with an existing adjacent use.
5. On upland industrial sites, environmental remediation shall be consistent with applicable state and federal laws.
6. Water-dependent industrial development shall occur only on shorelines where commercial navigability is adjacent to the proposed use.
7. Any type of industrial development on shorelines shall implement a range of Low Impact Development techniques to minimize the impacts on riparian and near-shore environments and upland areas.
8. Non-water-oriented industrial uses (located along freshwater shorelines) shall provide adequate landscape screening from shoreline areas, especially where public trails and/or access is existing or proposed.
9. Parking areas required for industrial development shall not be located between shorelines and development unless said parking is inherent to the use itself, and not accessory or employee parking.
10. Industrial development shall minimize site lighting per the requirements in BMC 22.09.

11. Non-water-oriented industrial uses shall not be located on shorelines when adjacent to navigable waters unless they meet at least one of the criteria below:
 - a. The use is part of a shoreline mixed-use project that includes a water-dependent use;
 - b. The use is within the shoreline jurisdiction but physically separated from the shoreline by a significant separate property, public right-of-way, or existing use; or
 - c. The use is located within the Waterfront District Shoreline Mixed Use designation and subject to the use allowances in BMC 22.03.30.F, *Shoreline Environmental Designations*.

22.09.60 PIERS, FLOATS, PILINGS - LAKE WHATCOM AND LAKE PADDEN

- A. Regulations: In addition to the policies and requirements in BMC 22.08.150 *In-Water Structures*, the following shall apply to piers, floats and pilings within the waters of Lake Whatcom and Lake Padden:
 1. Piers shall not exceed a width of four (4) feet.
 2. Piers on Lake Whatcom shall not exceed the average length of 5 piers on either side located within an area having the same or similar bottom profile; provided, overall pier and float length shall not be greater than necessary to reach a water depth of 30 inches measured at elevation 311 ft. MSL or an equivalent depth to provide a safe distance from the bottom for the intended vessel.
 3. Piers on Lake Padden shall be of a length sufficient to provide safe depth for swimming, diving, or boat access; provided, overall pier and float length shall not be greater than necessary to reach a water depth for the intended purpose.
 4. Floats including supports, decking and floatation device, shall not exceed dimensions of 8 feet x 16 feet (or the equivalent area) and shall be designed and installed with maximum of 60% of water surface coverage. Trex, Sundeck, Gator-Decking, Thru-flow panels or steel grating are examples of preferred materials for floats
 5. All float materials including supports, decking and floatation devices shall not include the use of any preservative treatment including but not limited to; creosote, arsenic, penta-chlorophenol and ACZA. (Ammoniacal Copper Zinc Arsenate) NOTE: Staff continues to research this issue as information is released from EPA and as recommended by professionals from in-water construction contractors. This research will yield a completed list of prohibited treatments.

22.09.70 PIERS, FLOATS, PILINGS WITHIN MARINE SHORELINES

- A. Regulations: In addition to the requirements in BMC 22.09.60 *Piers, Floats, Pilings – Lake Whatcom and Lake Padden*, the following shall apply to piers, floats, and pilings within protected marine waters:
1. Piers, floats and pilings shall be required to adhere to the mitigation sequencing in BMC 22.08.20 *Mitigation Sequencing* and requirements in BMC 22.08 and 22.09.
 2. Piers including gangways shall be designed with the smallest amount of water surface area coverage practical when they are located on or above the water surface between the OHWM and the elevation of -10 feet Mean Lower Low Water (MLLW).
 3. Piers shall be open and available to the public for access subject to the exceptions in Section 22.08.90.B.7, *Public Access*.
 4. Piers, floats and gangways, when located within or over a critical area, shall be designed with the minimum necessary water-surface coverage in order to provide safe access to and from floats and piers for public and private access including ADA compliance, buoyancy, loading and vessel protection.
 5. New pilings, support beams, decking and floats shall not be constructed with products such as creosote, arsenic, penta-chlorophenol and Styrofoam. Floats shall not be located in water between the OHWM and -10 MLLW unless no feasible alternative exists. Existing floats located at -8 MLLW may be maintained and replaced provided a minimum of 2 feet of clearance from the seafloor is provided at extreme low tides.
 6. Floats including extensions, laterals and finger floats shall utilize the best available and feasible technology and design standards for decking, grating, support structures and framing such that safe access, loading capacities, buoyancy and maintenance are not compromised.
 7. Pilings shall be steel or concrete. The piling systems shall be designed to minimize as practical and feasible the cumulative area of piling system in contact with bedlands necessary to retain structural integrity of the intended use.
 8. When ACZA treated materials or other materials approved by federal or state agencies are used, “BMP’s for the use of treated wood in aquatic and other sensitive environments” (August 1, 2006) shall be implemented.
- B. Regulations: In addition to the requirements in BMC 22.09.60 *Piers, Floats, Pilings – Lake Whatcom and Lake Padden*, the following shall apply to piers, floats, and pilings within unprotected marine waters between the elevation of the OHWM and -15 feet MLLW:
1. Piers, gangways and floats that are over or within the subject waters shall be configured to be perpendicular or as near as possible to perpendicular to upland areas unless a different configuration is required for ADA or public access purposes or due to physical constraints.

2. Piers and gangways shall be designed with the maximum amount of grating to allow for light penetration while providing safe access including ADA compliance and sufficient loading capacity and considering safe access to and from floats and piers for public and private access including buoyancy, loading and vessel protection. Floats shall be configured such that they are not located within zero feet to -10 feet MLLW within the subject unprotected water-areas specified above unless no other feasible alternative exists.
3. Floats shall be designed to provide the maximum amount of light penetration while providing safe access including ADA compliance and addressing demands for buoyancy, loading and impacts of wave, tidal and current energy.
4. Pilings shall be steel or concrete. . The piling systems shall be designed to minimize as practical and feasible the cumulative area of piling system in contact with bedlands necessary to retain structural integrity of the intended use.
5. When ACZA treated materials or other materials approved by federal or state agencies are used, “BMP’s for the use of treated wood in aquatic and other sensitive environments” (August 1, 2006) shall be implemented.

22.09.80 RECREATIONAL DEVELOPMENT

Water-oriented recreational development can include but is not limited to parks, trails, open spaces, beaches, boat or other watercraft rentals, fishing piers, aquariums, view platforms and over-water boardwalks.

A. Policies

1. Water-oriented recreational development is encouraged on shorelines provided it results in no net loss of ecological function and is a preferred use along shorelines of statewide significance (Bellingham Bay and Lake Whatcom).
2. Water-oriented recreational development on the shorelines should be consistent with the 2006 Comprehensive Plan and the City of Bellingham Park, Recreation and Open Space Plan (2005) in terms of satisfying future demand and design.
3. Water-oriented recreational development should take precedence over non-water-oriented recreational uses. Specifically:
 - a. Recreational development should not degrade the physical characteristics of the shoreline in terms of overall ecological function of the shoreline areas;
 - b. Recreational development should be consistent with the City of Bellingham Comprehensive Plan and of the City of Bellingham Park, Recreation, and Open Space Plan (2005) to provide a variety of recreational needs and opportunities;

- c. Wherever possible, shoreline recreational facilities should be linked to other adjacent recreational attractions by pedestrian and/or bicycle trails; and
 - d. Recreational development, where applicable, should include interpretive displays describing cultural, historical and scientific information.
4. Non-water-oriented recreational development uses should not be located on shorelines.

B. Regulations

1. Water-oriented recreation facilities shall be located and designed such that there is no net loss of shoreline ecological function.
2. Development of water-oriented recreation facilities shall comply with the mitigation sequencing specified in BMC 22.08.20 *Mitigation Sequencing* of this Program.
3. Water-oriented recreation facilities proposed in or over marine waters shall comply with the applicable requirements in this Title.
4. Development of water-oriented recreation facilities shall not occur within areas designated as SMA floodways.
5. Development of recreation facilities shall implement, where applicable, the elements within the City of Bellingham Park, Recreation and Open Space Plan (2005), the Waterfront Futures Group Framework Plan and the Waterfront District Master Plan, upon adoption.
6. Recreational development shall be oriented towards the shoreline, shall provide the maximum possible amount of public access to the shoreline, and shall be subject to the applicable requirements in BMC 22.08.90 *Public Access*.
7. Non-water-oriented recreational use should not be located on shorelines unless it complies with the applicable standards in BMC 22.03.

22.09.90 RESIDENTIAL DEVELOPMENT

Residential development includes subdivisions of large parcels, multi-family housing and condominiums and single-family residences. Under the Shoreline Management Act, owner occupied single-family residences are a preferred use on the shorelines. However, residential uses can cause significant damage to the shoreline area through cumulative impacts resulting from vegetation loss, shoreline armoring, increased amount of impervious surfaces and resulting stormwater runoff, septic system failure, and additional vehicular trips.

A. Policies

1. Development of residential units should result in no net loss of ecological function.
2. Any residential development along the shoreline should be set back from steep slopes and eroding shoreline areas so that the shoreline is not further eroded nor structural improvements required to protect property.

3. In cases where either large tracts are subdivided into single-family residential parcels or where contiguous individual building sites are developed for single-family residences, common public access areas and one joint-use dock should be developed for the use of residents of the subject subdivision.
4. Design of residential development should include preservation of existing native vegetation to the greatest extent possible.
5. Residential development should be designed to minimize the amount of impervious area and should utilize Low Impact Development techniques to the greatest extent practicable (e.g., permeable pavers, stormwater infiltration and filtration).
6. New multi-unit residential development and the subdivision of land into more than five parcels should incorporate into the overall design planned public access amenities that are specified within the City of Bellingham Park, Recreation and Open Space Plan (2005) whenever feasible.
7. When multi-family residential units are developed in commercial or industrial areas (including town-homes and condominiums) said residential units should not be located on the ground floor.
8. New over-water residences, including floating homes, are not a preferred use and should not be permitted.

B. Regulations

1. When two or more undeveloped single-family legal building sites are contiguous within shorelines, only a single joint-use dock with a common access easement is permitted for use by those two or more residential units.
2. For new multi-unit residential development, one single joint-use dock shall be allowed for the entire development.
3. In instances where new multi-family residential uses block the view of shoreline areas from a substantial number of citizens, public access shall be provided between the development and the shoreline for the general public.
4. Where multi-family residential development occurs on shorelines as part of a mixed use, public access shall be provided between the development and the shoreline for the general public per the requirements in BMC 22.08.90 *Public Access*.
5. Where residential development occurs on shorelines as part of a mixed-use development, said residential development shall not occur on the ground floor.
6. Where public access has already been provided as part of a prior action between the shoreline and a development or existing building, additional public access is still required but the form and function of that access shall be analyzed, reviewed and approved on a site-by-site basis and per the requirements in BMC 22.08.90 *Public Access*.

7. Upon redevelopment of single-family residences, particularly within the Lake Whatcom Watershed, the applicable requirements within BMC 16.80 and BMC 22.08 shall apply.
8. New bulkheads or other structurally engineered shoreline armoring techniques in conjunction with new residential development shall not be permitted unless otherwise specified in BMC 22.08.
9. Over-water residences including floating homes (not including live-aboard vessels such as houseboats, sailboats or yachts within approved port marina facilities) are prohibited regardless of shoreline designation.
10. Live-aboard vessels are prohibited except where allowed in approved port marina facilities.
11. Public access for the general public is not required on private property between development of one single-family residence and the abutting shoreline.

22.09.100 RESTORATION AND CONSERVATION

Restoration is the improvement or reestablishment of impaired ecological shoreline processes or functions. This may be accomplished through measures including but not limited to: amending soils, planting native vegetation, removing derelict shoreline structures, removing or treating toxic materials, enhancing or restoring native species, and re-sloping banks within near-shore or riparian areas. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions (WAC 173-26). The citywide objective of restoration is to achieve a net gain in ecological function within each watershed.

A. Policies

1. The primary objectives of restoration projects should be to protect and restore natural processes controlling environmental factors.
2. The Nooksack Tribe, Lummi Nation, Corps of Engineers, Washington Department of Ecology, and the Washington Department of Fish and Wildlife and other appropriate resource agencies should be included at the beginning of the design and development stages of a restoration project or plan.
3. The goals of the Restoration Plan in APPENDIX B should be considered for all restoration and conservation projects as well as the Restoration Opportunities within the Functional Analysis of the subject reach in the 2004 Shoreline Characterization and Inventory.
4. Restoration and conservation may take place as a stand-alone project or as a required element of a larger development proposal. In either case the following should be achieved as is feasible:
 - a. Non-native vegetative species should be eliminated and soil amendments should be made including mulching to help establish new native vegetation;
 - b. Installation of native vegetation should be an appropriate mix of deciduous, conifer, under-story and groundcover species that are capable

of achieving substantial water body shading, provide food sources for a variety of species, enhance and connect to habitat corridors and slow movement of groundwater and sheet-flow towards the water body;

- c. Introduction of LWD to the water body should not adversely impact fish passage or hydrologic function; and
- d. Design and implementation of restoration projects that alter the location of the OHWM should not negatively impact abutting or proximate (third party) property owners, compromise the integrity or threaten the loss of existing structures, transportation routes, public access areas or cause significant additional erosion.

B. Regulations

1. Restoration projects that are within critical areas, shorelines or their required buffers are permitted subject to the applicable requirements within this Title.
2. Restoration projects that achieve the objectives within the Restoration Plan (APPENDIX B) shall have priority over other restoration projects.
3. Whenever feasible, restoration projects that have been identified in the Bellingham Bay Demonstration Pilot Project Comprehensive Strategy and Habitat Documentation Report shall be implemented as required as development occurs within or adjacent to those areas specified.
4. Whenever feasible, restoration opportunities specified in the WFG Framework Plan and within the 'Early Action Items' shall be implemented as required as development occurs within or adjacent to those areas.
5. Future restoration plans that are developed shall include input and coordination from federal, state and local agencies and governments with jurisdiction as well as special interest and non-profit groups, private firms and the general public.
6. Restoration projects that include structural modification or stabilization shall first consider bioengineered techniques as specified in BMC 22.08.120 *Shoreline Modification / Stabilization*.
7. 8. Restoration projects shall be designed such that there are no adverse impacts on ecological resources or functions within the same watershed or sub-drainage.
8. Restoration projects shall include a maintenance and monitoring plan financial surety that includes a guarantee and/or contingency plan when said project does not achieve its intended objective.
9. Restoration projects shall take into consideration existing and lawfully erected structures and developments such that their safety is not compromised. Restoration projects shall not conflict with existing utilities, roadways and public access points unless those functions can be relocated such that the public benefit remains the same or is improved.

10. Restoration projects that change the location of the OHWM and thereby alter land areas within shoreline jurisdiction shall comply with the following:
 - a. The restoration plan shall be reviewed and approved by the Department of Ecology Bellingham Field Office and the Director of the Planning and Community Development Department.
 - b. Property owners that would have all or portions of their property encumbered by new shoreline jurisdiction or new shoreline buffers as a result of a restoration project shall be provided with proper notice prior to approval of the project as stated in a above.
 - c. Where pre-restoration buffer and setback standards are established as specified in Section 22.08.10.B.5, *Shoreline Buffers*, the responsible party shall survey the buffer and record it against the title of the subject property(s). Said buffer shall also be marked in the field by an appropriate means. All subsequent development shall conform to the pre-restoration buffer. This requirement also applies to restoration that is a required element of a shoreline permit and as specified in subsection e, below.
 - d. When restoration occurs abutting a developed property that is presently nonconforming, the requirements in c. above shall apply, and all subsequent development shall comply with Section 22.05.40, *Nonconformity*.
 - e. Restoration projects shall be designed to provide at least the minimum functions necessary for the given objectives of the project and shall be consistent with the Functional Analysis for the subject reach per the 2004 Shoreline Characterization and Inventory.

22.09.110 ROADS, RAILWAYS, AND UTILITIES

Roads, railways and utilities are necessary to provide efficient public circulation and the shipment of goods and services. These transportation circuits can include but are not limited to roads, highways and interstates, rail lines and spurs, public service water and sewer mains, power generation, transmission and distribution facilities, and wireless communication facilities.

A. Policies

1. All new roadways, arterials, utilities and railways, (which by definition, include expansions of these systems), should be designed and located to minimize impacts to shoreline ecological function including riparian and near-shore areas, channel migration zones and the natural landscape.
2. Location and design of new roadways including arterials should not compromise existing and planned shoreline public access and existing and planned habitat restoration and enhancement.
3. New roadways including arterials, when necessary to be located within shorelines, should be designed in such a manner that the minimum width of travel-way for vehicles is provided and that an appropriate amount of travel-way is devoted to the pedestrian and/or multi-modal forms of transportation.

In this case, ‘appropriate’ is determined on a case-by-case basis with consideration given to achieving a no net loss of shoreline ecological function, proximity and connection to existing and planned multi-modal travel routes and existing or planned shoreline public access.

4. New roadways, especially arterials, should not be located parallel to shorelines. When new roadways, including arterials, are necessary to be located parallel to the shoreline due to topographic or parcel dimension constraints or due to existing structures such as buildings and railways or planned public facilities, said roadway should be designed to be the minimum length necessary to serve a circulation function for vehicular modes of travel.
5. When it is required for new roadways including arterials to be located within a critical area and/or its required buffer, the absolute minimum necessary amount of improved right-of-way should be developed.
6. New roadways including access roads and driveways associated with a permitted use should be the minimum necessary to serve the required access function.
7. New roadways including arterials should be designed and constructed to implement a range of available Low Impact Development techniques.
8. Utilities for the delivery of services and products such as but not limited to public sewer, water and storm mains and services, pipelines, power and transmission facilities should be located outside of shorelines (or placed underground), and critical areas and their associated buffers unless intended specifically for a permitted use.
9. Whenever feasible, utilities should be co-located within existing right-of-way corridors.
10. Utilities within shorelines should be under-grounded and their visual impact minimized to the extent feasible.
11. Installation of utilities including maintenance and expansion of existing utilities should improve the project area from its original condition via native vegetation management, screening and aesthetic improvements, or providing public access to the shoreline when practical.
12. All structures associated with railroads or railways should be constructed such that they do not compromise the public’s health, welfare, or ability to access the shoreline safely.
13. Circulation systems that have an interface with an established or proposed railway corridor should be coordinated such that the general public’s health, welfare, and safety is the highest priority.

B. Regulations

1. New roadways, utilities and railways shall mitigate their impacts such that the result is a no net loss of shoreline ecological function.

2. New roadways, utilities and railways shall comply with the applicable requirements in BMC 22.04 and 22.08 and the submittal requirements as specified in Chapter 22.06
3. When existing roadways, utilities or railways must be expanded and are presently located within shorelines or a required buffer, there shall be no net loss of shoreline ecological function including impacts to channel and near-shore migration.
4. Design and location of new roadways shall not compromise existing or planned public access improvements and existing or planned habitat restoration and enhancement.
5. New roadways, especially arterials, when located within shorelines and/or required buffers, shall have the minimum amount of travel way devoted to vehicular and truck traffic in order to serve a circulation function, and an appropriate amount of improvements devoted to pedestrians and/or multi-modal forms of transportation.
6. New roadways, especially arterials that are necessary to be located parallel to the shoreline due to topographic or parcel dimension constraints or due to existing structures such as buildings and railways or planned public facilities, shall be designed to have the minimum length necessary to serve a circulation function.
7. New roadways or utilities that must cross a shoreline shall first demonstrate that there is no feasible alternative. If there is no feasible alternative, said roads and/or utilities shall be designed to cross at or as near to a perpendicular angle and shall not be greater than 30 feet in width in order to minimize the potential impacts to shoreline ecological function including but not limited to downstream movement of LWD and gravel / cobble / sediment and shoreline and stream meander. Said crossings shall be designed according to the technical manuals for such features published by the Washington State Department of Fish and Wildlife and the National Marine Fisheries Service.
8. Public parking on new roadways is not permitted within any required buffer.
9. Access roads and/or drive lanes for water-dependent or water-related uses are allowed within required buffers and shall be designed to be the minimum width necessary and as perpendicular to the shoreline in order to serve an access function.
10. New utilities shall avoid critical areas to the maximum extent feasible.
11. Where new public or private utilities must cross a shoreline, the applicant shall demonstrate that boring underneath the shoreline including the hyporheic zone and outside of the CMZ cannot be achieved.
12. New utilities when necessary to be located within shorelines shall be located underground. This requirement does not include a water-dependent generation or transmission facility such as a desalination plant, bio-diesel facility, water-intake or pump / lift stations.

13. New utility systems should be co-located with other existing or planned utilities, roadways and/or railways and/or placed within already disturbed or impacted corridors whenever possible.
14. New utilities, when necessary to be located parallel to shorelines in a declining or downhill riparian area, shall not be located within any required buffer unless a critical area report and analysis can demonstrate that there is no net loss to shoreline ecological function and the net environmental result is positive.
15. Where new utilities are necessary within shorelines, the installation area shall be improved from its pre-existing condition. This requirement shall not apply when there is an overriding need for the general public to have the ability to access the shoreline in the same location as specified by the Parks and Recreation Department.
16. New railways shall be designed and located such that they do not compromise the general public's ability to access the shoreline safely.
17. New railways that have an interface with existing or planned circulation systems shall be designed such that the general public's safety is the highest priority.
18. Cell towers are a non-water-oriented use and are prohibited within shorelines.

22.010 22.10 DEFINITIONS

- A. The following definitions shall be used when interpreting this Program.
1. Accessory Development” means any development, structure or use customarily incidental to and subordinate to a primary use of a shoreline site and located on the same lot.
 2. Adverse impact – A reasonable likelihood (or probability) of a significant, i.e. a more than moderate, adverse impact on environmental quality, i.e., an element of the environment per the Washington State Environment Protection Act, SEPA (WAC 197-11).
 3. Alteration – Any human induced change in an existing condition of a critical area or its buffer. Alterations include but are not limited to grading, filling, channelizing, dredging, clearing (vegetation), construction, compaction, excavation, or any other activity that changes the character of the critical area.
 4. Anadromous Fish – Fish that spawn and rear in freshwater and mature in the marine environment. While Pacific salmon die after their first spawning, adult char (bull trout), sea-run cutthroat and steelhead can live for many years, moving in and out of saltwater and spawning each year. The life history of Pacific salmon and char contains critical periods of time when these fish are more susceptible to environmental and physical damage than at other times. The life history of salmon, for example, contains the following stages: upstream migration of adults, spawning, inter-gravel incubation, rearing, smoltification (the time period needed for juveniles to adjust their body functions to live in the marine environment), downstream migration, and ocean rearing to adults.
 5. Appurtenance” means development that is necessarily connected to the use and enjoyment of a single family residence and is located landward of the OHWM and/or the perimeter of a wetland. Appurtenances include a garage, deck, driveway, utilities, fences and grading which does not exceed 250 cubic yards (except to construct a conventional drainfield).
 6. Averaging – Establishing the required buffer setback from a critical area, within the permitted parcel of land only, so that areas within the parcel determined to be more environmentally sensitive than others will have a larger buffer than the less sensitive areas. For every increase in setback for one area of the parcel, there will be an equal corresponding decrease in another area of the parcel. The total land area within the buffer shall remain the same as if the buffer were a uniform width.
 7. Best Available Science – Current scientific information used in the process to designate, protect, or restore critical areas that is derived from a valid scientific process as defined by WAC 365-195-900 through 925. Sources of the best available science are included in Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas

- published by the Washington State Department of Community, Trade and Economic Development.
8. Best Management Practices (BMPs) – Conservation practices or systems of practices and management measures that:
 - a. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;
 - b. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;
 - c. Protect trees and vegetation designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and
 - d. Provide standards for proper use of chemical herbicides within critical areas.
 - e. The City shall monitor the application of best management practices to ensure that the standards and policies of this Title are adhered to.
 9. Bioengineered – Usually used in context with a shoreline modification where elements such as but not limited to sub-grade anchored drift logs, intense installation of native vegetation including shrubs and trees, large woody debris or clusters of anchored drift logs above-grade are installed, cobble/gravel/sand placement, earthen berms and any other stabilization measure that is not structurally engineered.
 10. Bio-swale – A bio-swale or bio-filtration trench is a vegetated stormwater treatment system that removes pollutants by means of sedimentation, filtration, soil adsorption, and plant uptake. They are typically configured as swales or filter strips. Boathouse – An overwater structure, including covered moorage of any kind, that is designed and used to store any type of vessel and/or related gear.
 11. Boathouse - An overwater structure, including covered moorage of any kind that is designed and used to store any type of vessel and/or related gear.
 12. Boating facilities – When used in context of mooring facilities, this term excludes docks and mooring facilities serving four or fewer single-family residences and moorage facilities for nine or fewer vessels.
 13. Boat lift – A structure designed and operated to raise a boat above the surface of the water.
 14. Bog – A wetland with limited drainage generally characterized by extensive peat deposits and acidic waters. Vegetation includes sedges, sphagnum moss, shrubs, and trees.
 15. Breakwater – Offshore structure aligned parallel to shore, sometimes shore-connected, that provides protection from waves.

16. Buffer – The area adjacent to a critical area that separates and protects the area from adverse impacts associated with adjacent uses.
17. Channel – An open conduit for water either naturally or artificially created, but does not include artificially created irrigation, return flow, or stock-watering channels.
18. Channel Migration Zone (CMZ) – The lateral extent of likely movement along a stream or river during the next one hundred (100) years as determined by evidence of active stream channel movement over the past one hundred (100) years. Evidence of active movement over the one hundred (100) year timeframe can be inferred from aerial photos or from specific channel and valley bottom characteristics. The time span typically represents the time it takes to grow mature trees that can provide functional large woody debris to streams. A CMZ is not typically present if the valley width is generally less than two (2) bank-full widths, if the stream or river is confined by terraces, no current or historical aerial photographic evidence exists of significant channel movement, and there is no field evidence of secondary channels with recent scour from stream flow or progressive bank erosion at meander bends. Areas separated from the active channel by legally existing artificial channel constraints that limit bank erosion and channel avulsion without hydraulic connections shall not be considered within the CMZ.
19. The City has conducted an analysis of CMZs that occur within shorelines. The supporting documentation is included in APPENDIX D.
20. Clearing – The destruction or removal of vegetative ground cover, shrubs and trees including, but not limited to, root material removal and/or topsoil removal.
21. Confluence – The point at which two or more streams come together.
22. Conservation Easement – A legal agreement that the property owner enters into to restrict uses of the land. Such restrictions can include, but are not limited to, passive recreation uses such as trails or scientific uses and fences or other barriers to protect habitat. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property, therefore, providing permanent or long-term protection.
23. Creation (Establishment) – The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deep-water site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydro-period, create hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.
24. Critical Areas – Critical areas include any of the following areas or ecosystems: aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and wetlands, as defined in RCW 36.70A and BMC 16.55.

25. Critical Habitat – Habitat necessary for the survival of endangered, threatened, rare, sensitive or monitor species.
26. Culvert – A pipe or concrete box structure that drains open channels, swales or ditches under a roadway or embankment; typically with no catch basins or manholes along its length.
27. Cumulative Impacts – The combined, incremental effects of human activity on ecological or critical area functions and values. Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.
28. Dedications – Property dedicated to an entity (typically the City of Bellingham) to be preserved for open space or conservation / restoration area.
29. Delineation – The precise determination of wetland boundaries in the field and the mapping thereof.
30. Development – Means 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 that interferes with the normal public use of the surface of the waters overlying lands subject to the Act at any state of water level. This term may include activities related to subdivision and short subdivisions; planned unit developments; clearing activity; fill and grade work; building or construction; and activities that are exempt from the substantial development permit process or that require a shoreline variance or conditional use.
31. Development Permit – Any permit issued by the City, or other authorized agency, for construction, land use, or the alteration of land.
32. Director – The director of the City Planning and Community Development Department or their designee.
33. Dolphin – A cluster of piles bound together.
34. Dredging – Any physical digging into the bedlands of a water body and subsequent removal of soil or other material.
35. Ecologic Function or Shoreline Ecological Function – The work performed or role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline’s natural ecosystem. See WAC 173-26-200(2)(c). Functions include but are not limited to habitat diversity, food chain support, and water quality protection and enhancement for fish and wildlife; flood storage, conveyance and attenuation; ground water recharge and discharge; erosion control; wave attenuation; protection from hazards; historical, archaeological, and aesthetic value protection; educational opportunities; and recreation.

- These beneficial roles are not listed in order of priority. Also referred to as functions or functions and values.
36. Enhancement – The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydro-periods, or some combination of these. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.
 37. Erosion – The process whereby wind, rain, water, and other natural agents mobilize and transport soil particles.
 38. Erosion Hazard Areas – At least those areas identified by the U.S. Department of Agriculture Natural Resources Conservation Service as having a “severe” rill and inter-rill erosion hazard.
 39. Estuary – The zone or area of water in which freshwater and saltwater mingle and water is usually brackish due to daily mixing and layering of fresh and salt water. Also includes pocket estuaries.
 40. Feasible – An action, such as a development, mitigation, or preservation requirement, meeting all of the following conditions:
 - a. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results, and
 - b. The action provides a reasonable likelihood of achieving its intended results, and
 - c. The action does not physically preclude achieving the project’s primary intended legal use, and
 - d. The action is consistent with applicable goals and policies within the 2006 City of Bellingham Comprehensive Plan.
 41. In cases where this Program requires certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant. In determining an action’s infeasibility, the reviewing agency may weigh the action’s relative public costs and public benefits, considered in the short and long term timeframes.
 42. Filling – Depositing dirt, mud or other materials into aquatic areas to create more dry land, usually for agricultural or commercial development purpose, often with ruinous ecological consequences.

43. Filtration – Mechanism used where stormwater is filtered (treated) through a constructed system such as a sand trench, multi-cartridge stormwater vault, or bio-swale that does not percolate to the native soil layer but is discharged to a conveyance system after treatment.
44. Fish and Wildlife Habitat Conservation Areas (FWHCAs) – Please see BMC 16.55.470
45. Floating Home – An over water residence not designed, registered or used as a vessel, without adequate navigation and propulsion system, and usually requiring land-based services to function properly.
46. Flood or Flooding – A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.
47. Floodplain – The total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.
48. Floodplain (100-year floodplain) – The land area susceptible to being inundated by steam 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 (BMC 17.76) or a reasonable method that meets the objectives of the SMA (RCW90.58).
49. Forested Wetland – A wetland with at least thirty percent (30%) of the surface area covered by woody vegetation greater than twenty (20) feet in height that is at least partially rooted within the wetland.
50. Frequently Flooded Areas – Please refer to BMC 16.55.370.B. 1-3.
51. Functions or Functions and Values – The beneficial roles served by critical areas including, but are not limited to, water quality protection and enhancement; fish and wildlife habitat; food chain support; flood storage, conveyance and attenuation; ground water recharge and discharge; erosion control; wave attenuation; protection from hazards; historical, archaeological, and aesthetic value protection; educational opportunities; and recreation. These beneficial roles are not listed in order of priority. Critical area functions can be used to help set targets (species composition, structure, etc.) for managed areas, including mitigation sites.
52. Geologically Hazardous Areas – Areas that may not be suited to development consistent with public health, safety, or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include: erosion, landslide, seismic, mine, and volcanic hazards. See BMC 16.55.410.
53. Grading – The physical manipulation of the earth's surface, soil conditions and/or drainage pattern in preparation for an intended use or activity.

-
54. Groin (also referred to as a spur dike or rock weir) – A barrier-type structure extending from the backshore or stream bank into a water body for the purpose of the protection of a shoreline and adjacent upland by influencing the movement of water and/or deposition of materials.
 55. Growth Management Act (GMA) – RCW 36.70A as amended.
 56. Habitat – The combination of essential elements and ecological functions of natural systems that comprise the area or type of environment and its surroundings in which a particular kind of organism or ecological community normally lives or occurs. Habitat includes habitat forming processes, which are the system-wide ecological processes (chemical, physical and biological) that create and maintain habitat elements. It is the disturbance processes that create unique habitat elements, enhance natural productivity, and drive biological processes that contribute to the ecological complexity and integrity of natural systems.
 57. Habitat Conservation Areas – Areas designated as Fish and Wildlife Habitat Conservation Areas.
 58. Habitats of Local Significance – These areas include a seasonal range or habitat element with which a given species has a primary association, and which if altered may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alterations such as cliffs, talus, and wetlands. (WAC 365-190-030)
 59. Hazard Areas – Areas designated as frequently flooded areas or geologically hazardous areas due to potential for erosion, landslide, seismic activity, mine collapse, or other geological condition.
 60. Hazard Tree – Any tree or tree part, which poses a high risk of damage to persons or property.
 61. Height – Measured from the mean average grade of the site, which is the average of the elevations of the midpoints of all exterior walls within the shoreline jurisdiction.
 62. High Blow-down Potential – Usually indicates a small cluster of trees that are isolated and tend to be on windward ridges or in areas where high winds make them susceptible to being blown over and would be indicated as such by a certified arborist.
 63. High Intensity Land Use (Wetland rating) – Land use that includes the following uses or activities: commercial, urban, industrial, institutional, retail sales, residential (more than 1 unit/acre), high-intensity new agriculture (dairies, nurseries, greenhouses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields), hobby farms.

-
64. Houseboat – A vessel designated, registered and operated to be a live aboard with its own adequate means of propulsion, navigation and related vessel amenities.
 65. Impervious Surface – A hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development, or that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater.
 66. Industrial Development – means facilities for processing, manufacturing, and storage of finished or semi-finished goods, including but not limited to ship building and major repair, commercial storage and repair of fishing gear, warehousing
 67. Infiltration – The downward entry of water into the immediate surface of the soil.
 68. Jetty – A structure usually projecting out into the sea at the mouth of a river for the purpose of protecting a navigational channel or a harbor, or to influence water currents.
 69. Live Aboard – means any non-commercial habitations of a vessel when any one of the following applies:
 - a. Any person or succession of different persons resides on the vessel in a specific location, and/or in the same area on more than a total of thirty (30) days in any forty (40) day period or on more than a total of ninety (90) days in any three hundred sixty-five (365) day period. “In the same area” means within a radius of one mile of any location where the same vessel previously moored or anchored on state-owned aquatic lands. A vessel that is occupied and is moored or anchored in the same area, but not for the number of days described in this subsection, is considered used as a recreational or transient vessel; or
 - b. The operator of the facility where the vessel is moored, through the moorage agreement, billing statement, or facility rules, defines the use as a residential use or identifies the occupant of the vessel as a resident of the vessel or of the facility; or
 - c. The occupant or occupants identify the vessel or the facility where it is moored as their residence for voting, mail, tax, and similar purposes.
 70. Low Impact Development – A method of managing stormwater that aims to mimic the predevelopment hydrologic conditions of the site by using existing soil, vegetation, and topography to detain runoff and remove pollutants.

71. Low-intensity Land Use – (Wetland ratings) - Land use that includes the following uses or activities: forestry (cutting of trees only), low-intensity open space (such as passive recreation and natural resources preservation), unpaved trails.
72. Marina – System of piers, floats, buoys that provides private or public wet moorage for vessels for which a fee is charged and can also include launching facilities.
73. Marsh – A wetland where the dominant vegetation is non-woody plants such as grasses and sedges, as opposed to a swamp where the dominant vegetation is woody plants such as trees.
74. Mature Forested – Comprised of coniferous trees of at least 50 years in age and/or deciduous trees 30 years in age or a combination of trees representing a distinct layered canopy complex of immature woody vegetation less than 20 feet in height, trees of medium heights, typically 20 to 60 feet, and taller trees ranging from 60 to 90 feet or more in height inclusive of a diverse under-story.
75. Mean Higher High Tide (MHHT) – The average height of daily high tides. For the City of Bellingham, this elevation is 9.38 feet above sea level, City Datum NGVD29 or NAVD88.
76. Mine Hazard Areas – Areas that are underlain by, adjacent to, or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of probable sink holes, gas releases, or subsidence due to mine workings. Factors that should be considered include proximity to development, depth from ground surface to the mine working, and geologic material.
77. Mitigation – Measures taken to reduce, avoid, or rectify adverse impacts on the environment.
78. Moderate-intensity Land Use – (Wetland ratings) - Land use that includes the following uses or activities: residential (1 unit/acre or less), moderate-intensity open space (parks), moderate-intensity new agriculture (orchards and hay fields), paved trails, building of logging roads.
79. Monitoring – Evaluating the impacts of development proposals on the biological, hydrological, and geological elements of natural systems, and assessing the performance of required mitigation measures through the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features, including gathering baseline data.
80. Mosaic of Wetlands – Any group of wetlands that meet the following criteria: Each patch of wetland is less than 1 acre (0.4 hectares), and each patch is less than 100 feet (30 meters) apart, on the average, and the areas delineated as vegetated wetland are more than 50% of the total area of the wetlands and the uplands together, or wetlands, open water, and river bars. If these criteria are not met, each area should be considered as an individual unit.

81. Multi-family Residence - A building containing two or more dwelling units, including but not limited to duplexes, apartments, and condominiums.
82. Native Vegetation – Plant species that are indigenous to the area.
83. Navigable Waters – When used in context with commercial or industrial water-dependent and water-related uses, navigable waters means aquatic areas where draft is deep enough to accommodate the vessels that are inherent to the intended use. Navigable waters also include recreational accessible waters under the Public Trust Doctrine such as waters which can be accessed by recreational boats, including canoes and kayaks.
84. Neighborhood Plan – Sub-elements of the Comprehensive Plan that specify uses allowed and densities required for specific neighborhoods.
85. Nexus – A rational relationship between a probable adverse impact from a proposed development on a legitimate governmental interest or purpose. For example, the nexus between a proposal’s predicted impact on a riparian area and documented current available inventory of the same riparian area (or buffer).
86. Nonconforming Structure or Building. A structure or building, the size, dimensions, or location of which was lawful prior to the adoption, revision, or amendment to the Code but that fails by reason of such adoption, revision, or amendment to conform to the present requirements of the current regulations.
87. Nonconforming Use. A use or activity that was lawful prior to the adoption, revision or amendment of the Code but that fails by reason of such adoption, revision, or amendment to conform to the present requirements of the current regulations.
88. Nonconforming Lot. A lot, the area, dimensions, or location of which was lawful prior to the adoption, revision, or amendment of the Code but that fails by reason of such adoption, revision, or amendment to conform to the present requirements of the current regulations.
89. No Net Loss of Ecologic Function – Maintenance of the aggregate total of the City’s shoreline ecological functions, including processes. (See definition of ecologic function.) The no net loss standard requires that the impacts of shoreline development and/or use, whether permitted or exempt, be identified and mitigated such that there are no resulting significant adverse impacts on shoreline ecological functions. Each project shall be evaluated based on its ability to meet the no net loss goal commensurate with the scale and character of the proposed development. The baseline for no net loss shall be the level of shoreline ecological functions and environmental resource productivity as established in the 2004 City of Bellingham Shoreline Characterization and Inventory and as established by a required critical area report as part of the application submittal requirements specified in ATTACHMENT 1.
90. Open Space – Public or privately owned land that is undeveloped and may not be developed due to designation, deed restriction or conservation easement.

91. Ordinary High Water Mark (OHWM) – The mark on lake, stream and marine shorelines which will be found by examining the beds and bank 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 at it may change thereafter in accordance with permits issued by a local government or the Department of Ecology: Provided, that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide, and the ordinary high water mark adjoining fresh water shall be the line of mean high water which is elevation 9.38 feet City Datum, or as determined by the National Oceanic and Atmospheric Administration in case of sea level rise, shall be used as the point of beginning for determining shoreline jurisdiction.
92. Photic Zone – The area between the OHWM and approximately -30 feet Mean Lower Low Water (MLLW).
93. Practical Alternative – An alternative that is available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall project purposes, and has less impacts to critical areas.
94. Preservation (Protection/ Maintenance) – Removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with the term “preservation.” Preservation does not result in a gain of wetland acres, may result in a gain in functions, and will be used only in exceptional circumstances.
95. Primary Association - Use of a habitat area by a listed or priority species for breeding/spawning, rearing young, resting, roosting, feeding, foraging, and/or migrating on a frequent and/or regular basis during the appropriate season(s) as well as habitats that are used less frequently/regularly but which provide for essential life cycle functions such as breeding/nesting/spawning.
96. Protected marine waters – waters which are not directly influenced by wave action or currents, or, those waters which are within the confines of a marina as defined.
97. Public Access – The general public’s ability to be in, on or traveling upon the water, get to the water’s edge or have a view of the water and the shoreline.
98. Public Interest – The community's concern with and right to long term protection of the public health, safety and welfare, which may be, or is likely to be, adversely impacted to a significant degree by particular uses or development actions, whether public or private.

-
99. Public Zone – A zoned area or general use type intending to apply to major parcels of land within the city limits which are owned by public agencies and used for public purposes.
 100. Qualified Professional – A person with expertise in the pertinent scientific discipline directly related to the critical area in question. The qualified professional shall have a minimum of a B.S. or B.A., or equivalent certification, and a minimum of five years of directly related work experience.
 101. Recharge – The process involved in the absorption and addition of water to ground water.
 102. Re-establishment – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Re-establishment results in a gain in wetland acres.
 103. Rehabilitation – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.
 104. Repair or Maintenance – An activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition.
 105. Restoration – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. Includes “re-establishment” and “rehabilitation”.
 106. Right-of-way – Land which is dedicated to a city for purposes of public circulation and/or utilities.
 107. Riparian Habitat Area– (Also referred to as a ‘buffer.’) Areas adjacent to aquatic systems that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends to that portion of the terrestrial landscape that directly influences the aquatic ecosystem by providing shade, fine or large woody material, nutrients, organic and inorganic debris, terrestrial insects, or habitat for riparian-associated wildlife. Widths shall be measured from the ordinary high water mark or from the top of bank if the ordinary high water mark cannot be identified. It includes the entire extent of the floodplain and the extent of vegetation adapted to wet conditions as well as adjacent upland plant communities that directly influence the stream system. Riparian habitat areas

- include those riparian areas severely altered or damaged due to human development activities.
108. Rough Proportionality Test – A case-by-case determination by the government that a particular condition of approval on a proposed project is reasonably related to both the character and the degree of a probable impact of the project on the public health, safety and welfare.
 109. Sediment Transport – The natural movement, transportation or relocation of weathered rock down a river, creek, or stream.
 110. Seep – A spot where water oozes from the earth, often forming the source of a small stream.
 111. Seismic Hazard Areas – Areas that are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.
 112. SEPA – Washington State Environmental Policy Act, Chapter 43.21C RCW.
 113. Setback – The distance measured in feet that a particular land use or development footprint must be located from a required buffer edge.
 114. Shall – A mandate, the action must be done.
 115. Shorelands – Those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark (OHWM) of SMA shorelines; all of the 100-year floodplain as measured from the edge of the associated floodway, except for Whatcom Creek east of I-5 i.e. Reach 4, 5 and a portion of 3, which includes only that floodplain portion within 200 feet of the floodway; and all wetlands and river deltas that are associated with the areas specified above and are subject to the provisions of RCW 90.58.
 116. Shorelines – All of the water areas of the state as defined in RCW 90.58.030 including reservoirs and their shorelands together with the lands lying underneath them except:
 - a. Shorelines of statewide significance; and
 - 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.
 117. Water areas of the state that are ‘shorelines’ within the City of Bellingham include Bellingham Bay, Lake Whatcom, Lake Padden, Squalicum, Whatcom and Chuckanut Creeks, and that portion of Padden Creek that is tidally influenced (upstream to McKenzie Avenue).
 118. The Shoreline Base Maps indicate only which water bodies within the City are subject to shoreline jurisdiction and the regulations within this Program but NOT the extent of their associated jurisdictions.

-
119. Shoreline Management Act (SMA)– RCW 90.58
120. Shoreline Mixed Use – Combination of water-oriented and non-water-oriented uses within the same structure or development area.
121. Shorelines of the State – The total of all “shorelines,” as defined in RCW 90.58.030(2)(d), and “shorelines of statewide significance” within the state, as defined in RCW 90.58.030(2)(c).
- a. Shorelines of Statewide Significance (SSWS); (RCW 90.58.030.2.e.)
 - b. All waters of Puget Sound including Georgia Strait and the Strait of Juan de Fuca lying waterward of the extreme low tide line (MLLW) but not adjacent tidelands and shorelands (Waters of Bellingham Bay).
 - c. Lakes or reservoirs with a surface acreage of 1,000 acres or more (Lake Whatcom) and the shorelands adjacent to such per RCW 90.58.030
122. Should – Means that the particular action is required unless there is a demonstrated, compelling reason, based on the policy of the Shoreline Management Act and this Title, against taking the action.
123. Significant – Measurable, detectable or likely to have noticeable influence or effect.
124. Silt Fencing – Fencing designed to prevent the loss of topsoil from site.
125. 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.
126. SMA Floodway – RCW 90.58.030 2 g:
- a. Areas flooded with reasonable regularity: "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."
 - b. Identified by soil and vegetation: Floodway to be "identified, under normal condition, by changes in surface soil conditions or changes in types or quality of vegetative ground cover condition."
 - c. Not to include lands protected from floods by legal dikes and levees: "The floodway shall not include those 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."
127. Small Wetland Creation – Wetland created for the purpose of mitigation or habitat conservation
128. Soil Duff – Partially decayed organic matter (leaves, twigs, needles) on top of the top layer of soil.
129. Soil Survey – The most recent soil survey for the local area or county by the Natural Resources Conservation Service, U.S. Department of Agriculture.

-
130. Species – Any group of animals classified as a species or subspecies as commonly accepted by the scientific community.
131. Species Habitat – The specific area or environment in which a particular species of plant or animal lives. An organism's habitat must provide all of the basic requirements for life.
132. Species of Local Importance – Those species of local concern due to their population status or their sensitivity to habitat manipulation, or that are game species.
133. Species, Priority – Any fish or wildlife species requiring protective measures and/or management guidelines to ensure its persistence at genetically viable population levels as classified by the Washington Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate and monitor species, and those of recreational, commercial, or tribal importance. WAC 173-26-020 (25).
134. Species, Threatened, Sensitive and Endangered – As defined in both any fish or wildlife species that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range without cooperative management or removal of threats, and is listed by the state or federal government as a threatened species. WAC 173-26-020 (25) and WAC 232-12-297.
135. Story – That portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. If the finished floor level directly above a basement, cellar, or unused under-floor space is more than 6' above grade, as defined in the building code adopted by the City, or more than 50% of the total perimeter or is more than 12' above grade as defined at any point, such basement, cellar or unused under floor space shall be considered a story..
136. Stream - means those areas where surface waters produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the annual passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds, and defined channel swales. The channel or bed need not contain water year round. This definition includes drainage ditches or other artificial water courses where natural streams existed prior to human alteration.
137. Sub-basin or Sub-drainage Basin – The drainage area of the highest order stream containing the subject property impact area. Stream order is the term used to define the position of a stream in the hierarchy of tributaries in the watershed. The smallest streams are the highest order (first order) tributaries. These are the upper watershed streams and have no tributaries of their own. When two first order streams meet, they form a second order stream, and

- when two second order streams meet they become a third order stream, and so on.
138. Substantial Development - means any development of which the total cost or fair market value exceeds six-thousand four hundred sixteen dollars (\$6,416) 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.
139. Surety – A financial guarantee (bond or assignment of funds, or comparable instrument) established to ensure that work required by approval of a shoreline permit is completed satisfactorily.
140. Temporary – means used or active for a limited and relatively short period of time. For purposes of this SMP, a temporary use is, in general, for not longer than three or four years and said use shall not make permanent improvements that cannot be abandoned when vacating the structure at the end of the temporary period.
141. Tidelands – Land on the shore of marine water bodies between the line of ordinary high tide and the line of extreme low tide.
142. Total Maximum Daily Load (TMDL) of Pollutants – Established for waterways which fail to meet certain standards for water quality. Describes the amount of each pollutant a waterway can receive without violating water quality standards; takes into account pollution from all sources.
143. Unavoidable – Adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.
144. Unprotected waters – surface water that is not protected by breakwater, jetty or groin and is under direct influence of wave and or current.
145. Vessel - means a floating structure that is designed primarily for navigation, is normally capable of self-propulsion and is used as a means of transportation, and meets all applicable laws and regulations pertaining to navigation and safety equipment on vessels, including, but not limited to, registration as a vessel by an appropriate government agency.
146. Waterfront District – Formerly referred to as the ‘New Whatcom Special Development Area.’ The area has been renamed the ‘Waterfront District.’ Other applicable phrases that are related to this area include ‘Waterfront District Master Plan’ and ‘Development Agreement.’
147. Water Quality – A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.
148. Water Quality Standards – State-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses.

-
149. Water-dependent – A use or 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, boat ramps and transient moorage, aquaculture, float plane facilities and sewage treatment outfalls.
150. Water-enjoyment – A recreational or other use facilitating public access to the shoreline as a primary characteristic of the use. A water-enjoyment use also 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 assures 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, view towers, interpretive centers and other improvements facilitating public access to shorelines of the state. General water-enjoyment uses may include but are not limited to restaurants, museums, aquariums, scientific/ecological reserves, resorts and convention centers, and public markets, PROVIDED, that such uses conform to the above water-enjoyment specifications and the provisions of the Master Program.
151. 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.
152. Non-water-oriented Uses – Describes those uses which have little or no relationship to the shoreline and are not considered priority uses under the SMA. Examples include professional offices, automobile sales or repair shops, mini-storage facilities, multi-family residential development, retail facilities, department stores and gas stations.
153. 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:
- a. There exists 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
 - b. The use provides a necessary service supportive of the water-dependent commercial or industrial activities and the proximity of the use to its customers makes its services less expensive and/or more convenient. Examples include, but should not be limited to, manufacturers of large materials for which transportation cost becomes a significant factor, professional services serving primarily water-dependent activities, 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.

154. Watershed – The entire region drained by a waterway that drains into a lake, reservoir, bay, or other water body; the total area above a given point on a stream that contributes water to the flow at that point; the topographic dividing line from which surface streams flow in two different directions.
155. Weir – An obstruction placed in a stream/river intended to back-up or divert the flow of water or net/trap species or objects that make their way past a certain point.
156. Wetland Types – The descriptive wetlands taxonomic classification system of the U.S. Fish and Wildlife Service.
157. Wetlands – Areas that are inundated or saturated by surface water 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. 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 created to mitigate conversion of wetlands.
158. Zoning – To designate by ordinance, including maps, areas of land reserved and regulated for specific land uses.

B. ACRONYMS

ADA	Americans with Disabilities Act
ACZA	Ammoniacal copper zinc arsenate
BMC	Bellingham Municipal Code
CMZ	Channel migration zone
CPTED	Crime Prevention through Environmental Design
DNR	Washington State Department of Natural Resources
EPA	United States Environmental Protection Agency
FWHCA	Fish and Wildlife Habitat Conservation Area
GMA	Growth Management Act
ICT	Inter-jurisdictional Coordinating Team
LID	Low Impact Development
LWD	Large woody debris
LWMP	Lake Whatcom Management Program
MHHT	Mean higher high tide
MLLW	Mean lower low water
WSDA	Waterfront District Special Development Area
OHWM	Ordinary high water mark
RCW	Revised Code of Washington
SBO	Silver Beach Ordinance
SCI	2004 City of Bellingham Shoreline Characterization and Inventory
SEPA	State Environmental Policy Act
SMA	Shoreline Management Act
SMP	Shoreline Master Program
SSWS	Shorelines of statewide significance
TMDL	Total maximum daily load
USC	United States Code
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish and Wildlife
WDMP	Waterfront District Master Plan
WFG	Waterfront Futures Group

1 **22.11 SHORELINE DESIGNATION MAPS, SHORELINES OF**
2 **STATEWIDE SIGNIFICANCE AND DEVELOPMENT**
3 **REGULATION MATRICES**

4 **22.11.10 SHORELINE DESIGNATION MAPS**

5 **22.11.20 SHORELINES OF STATEWIDE SIGNIFICANCE MAP**

6 **22.11.30 DEVELOPMENT REGULATION MATRICES**

- 7
- 8 A. Natural
- 9 B. Urban Conservancy
- 10 C. Shoreline Residential
- 11 D. Urban Maritime
- 12 E. Aquatic
- 13 F. Waterfront District

14
15
16

1

2

3

**APPENDIX A – SHORELINE CHARACTERIZATION
AND INVENTORY**

1
2

This page intentionally left blank

1

2

APPENDIX B – RESTORATION PLAN

1
2

This page intentionally left blank

1

2

3

**APPENDIX C – SHORELINE ENVIRONMENTAL
DESIGNATION CRITERIA**

1
2

This page intentionally left blank

1
2

This page intentionally left blank

1

2

APPENDIX D – CMZ DOCUMENTATION

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

This page intentionally left blank

22.11.30 A. - NATURAL Development Regulation Matrix

NATURAL - MARINE

Reach #	Setback ¹ (from buffer edge)	Buffer (min - max)	Height	Pub Acc Req'd ²	Hab Rest Req'd ³
Marine 1 & 18-20	15'	200'	35' max / >35' = variance	subject to 22.08.90	N

NATURAL - FRESHWATER

Chuckanut 2-3	15'	100 - 250	35' max	subject to 22.08.90	N
Whatcom 6-7	15'	150 - 250	>35' = variance	" **	"
Whatcom 8	15'	100 - 200	"	" **	"
Lake Padden 2-4	15'	200	"	" **	"
Lake Whatcom 1	15'	200	"	" **	"

¹ Except that landscaping, pervious decks, balconies and stairs/steps, and eaves and/or overhangs may encroach into required setback.

² Except that public access is not required for those reaches that are designated NATURAL and zoned PUBLIC. (None in NATURAL MARINE)

³ Mitigation sequencing is required per 22.08.20. A subsequent analysis can include or result in required (and additional) restoration.

22.11.30 B. - URBAN CONSERVANCY Development Regulation Matrix

URBAN CONSERVANCY - MARINE

Reach #	Setback (from buffer edge)	Buffer (min - max)	Height ¹	Pub Acc Req'd	Hab Rest Req'd ⁴
Marine 2-3 ²	5'	150' - 200'	35' max	Y w/ N-W-O	Y w/ N-W-O
	5'	150' - 200'	35' max	"	"
Marine 3 w/in City	5'	50' - 100'	3 stories w/bonus	"	"
Marine 8-9, 14, 16	15'	150' - 200'	35' max	"	"
Marine 10 & 12	5'	100' - 200'	35' max	"	"
Marine 13	15'	200'	35' max	"	"
Marine 15	15'	100' - 150'	35' max	"	"
Marine 17 ³	15'	100' or, top bank +50** whichever is greater	35' max	"	"
Marine 21 ⁵	0'	0'	0'	Y	Y

W-D: water-dependent, W-R: water-related, W-E: water-enjoyment, N-W-O: non-water-oriented uses, CUP: shoreline conditional use permit

¹ For specific regulations on Height in the Urban Conservancy designation please refer to Section 22.03.30 B 5. f-j.

² Marine 2 and a portion of 3 is within the County and currently these shorelines have an "URBAN" designation. Upon annexation into the City these shorelines would have the City's Urban Conservancy designation and requirements.

³ Marine 17 is already protected via an existing shoreline permit. Minimum and Maximum buffers shown reflect the shoreline permit .

⁴ Mitigation sequencing is required per 22.08.20. A subsequent analysis can include or result in required (and additional) restoration.

⁵ Marine 21 is the causeway for the BNSF railroad. If for some reason the use of this causeway changes it shall be for a water-enjoyment use. (Trail)

22.11.30 B. - URBAN CONSERVANCY Development Regulation Matrix

URBAN CONSERVANCY - MARINE - continued

Reach #	Setback (from buffer edge)	Buffer (min - max)	Height ¹	Pub Acc Req'd	Hab Rest Req'd ⁴
All marine reaches	15'	per reach, above	25'		
Whatcom 1 north upstream of Holly	5'	50'	3 story w/in 100' 4 story w/in 100'-200'	Y w/ N-W-O	Y w/ N-W-O
Whatcom 1 south upstream of Holly	5'	100'	"	Y w/ N-W-O	Y w/ N-W-O
Whatcom 1 north btwn Holly/Roeder	5'	50 - 75'	35' max	Y w/ N-W-O	Y w/ N-W-O
Whatcom 1 south btwn Holly/Roeder	5'	50 - 75'	35' max	Y w/ N-W-O	Y w/ N-W-O

W-D: water-dependent, W-R: water-related, W-E: water-enjoyment, N-W-O: non-water-oriented uses, CUP: shoreline conditional use permit

¹ For specific regulations on Height in the Urban Conservancy designation please refer to Section 22.03.30 B 5. f-j.

² Marine 2 and a portion of 3 is within the County and currently these shorelines have an "URBAN" designation. Upon annexation into the City these shorelines would have the City's Urban Conservancy designation and requirements.

³ Marine 17 is already protected via an existing shoreline permit. Minimum and Maximum buffers shown reflect the shoreline permit .

⁴ Mitigation sequencing is required per 22.08.20. A subsequent analysis can include or result in required (and additional) restoration.

⁵ Marine 21 is the causeway for the BNSF railroad. If for some reason the use of this causeway changes it shall be for a water-enjoyment use. (Trail)

22.11.30 B. - URBAN CONSERVANCY Development Regulation Matrix - continued

URBAN CONSERVANCY - FRESHWATER

Reach #	Setback (from buffer edge)	Buffer (min - max)	Height ¹	Pub Acc Req'd	Hab Rest Req'd ³
	15'			subject to 22.08.90	
Chuckanut 1 & 4		100' - 250'	35' max		N
Padden Creek 1	15'	100' - 200'	35' max	Y w/ N-W-O	Y w/ N-W-O
Whatcom 2-5	5'	100' - 200'	3 story w/in 100' 4 story w/in 100'-200'	Y w/ N-W-O	Y w/ N-W-O
Squalicum 1	5'	75' - 100'	3 story w/in 100' 4 story w/in 100'-200'	Y w/ N-W-O	Y w/ N-W-O
Squal 2-5 & 9-11	15'	100' - 200'	" ²	Y w/ N-W-O	Y w/ N-W-O
Squal 6 west 1/2	15'	100 - 200	"	" **	"
Squal 6 east 1/2	15'	150 - 250	"	" **	"
Squal 7	15'	150 - 250	"	" **	"
Squal 8	15'	100 - 200	"	" **	"

22.11.30 B. - URBAN CONSERVANCY Development Regulation Matrix - continued

URBAN CONSERVANCY - FRESHWATER - continued					
Reach #	Setback (from buffer edge)	Buffer (min - max)	Height ¹	Pub Acc Req'd	Hab Rest Req'd ³
Lake Whatcom 4	5'	200'	35' max	N	N
Lake Whatcom 5	5'	100' - 200'	"	Y w/ N-W-O	Y w/ N-W-O
Lake Padden 1 & 3	15'	200'	"	N	N
All UC freshwater	per reach, above	per reach, above	25'	subject to 22.08.90	subject to 22.08.100

W-D: water-dependent, W-R: water-related, W-E: water-enjoyment, N-W-O: non-water-oriented uses, CUP: shoreline conditional use permit

¹ For specific regulations on Height in the Urban Conservancy designation please refer to Section 22.03.30 B 5. f-j.

² Those portions of Squalicum reaches 2 and 3 that are within single-family zoning are limited to 35' in height - otherwise: height is limited to 3-stories and bonus story is available if all parking for subject N-W-O use is within the building footprint or within a shared parking facility and as stated in 22.03.30 B 5, i.

³ Mitigation sequencing is required per 22.08.20. A subsequent analysis can include or result in required (and additional) restoration.

22.110.30 C. - SHORELINE RESIDENTIAL Development Regulation Matrix

SHORELINE RESIDENTIAL					
Reach #	Setback (from buffer edge)	Buffer (min - max)	Height	Pub Acc Req'd	Hab Rest Req'd ²
Lk Whatcom 2-3 & 6-7 ¹	5'	100'	35' max	only if creating 4+ SFR lots	Y if required by BMC 16.80 and 15.42
All Shoreline Res designations	5'	per reach, above	per reach, above	only if creating 4+ SFR lots	Y if required by BMC 16.80 and 15.42

CUP: shoreline conditional use permit

¹ The portion of Lake Whatcom 6 and all of Lk Whatcom 7 are currently within the County and are also designated SHORELINE RESIDENTIAL. Upon annexation into the City, these shorelines would have the City's Shoreline Residential designation and requirements.

² Mitigation sequencing is required per 22.08.20 AND BMC 16.80 and 15.42 may require establishment of a NVPA or engineered stormwater system.

22.11.30 D. - URBAN MARITIME Development Regulation Matrix

URBAN MARITIME - WATER ORIENTED ONLY					
Reach #	Setback (from buffer edge)	Buffer (min - max)	Height ²	Pub Acc Req'd	Hab Rest Req'd ¹
Marine 4 - portion & Marine 11	0'	0'	60'	subject to 22.08.90	N
Over water structures as permitted in 22.03.30.D.4. (Use Table)	0'	0'	25' as measured from the elevation of the OHWM	subject to 22.08.90	N

W-D: water-dependent, W-R: water-related, W-E: water-enjoyment, N-W-O: non-water-oriented uses, CUP: shoreline conditional use permit

¹ Mitigation sequencing is required per 22.08.20. A subsequent analysis can include or result in required (and additional) restoration.

² Exept existing buildings may be modified provided their current maximum height is not exceeded.

URBAN MARITIME - SHORELINE MIXED USE

Reach #	Setback (from buffer edge)	Buffer (min - max)	Height	Pub Acc Req'd	Hab Rest Req'd ¹
Marine 4 - portion	0'	45'	35' max >35'<=50' w/ view analysis >50' = variance	subject to 22.08.90	yes per appr'd plan or min of 3 objectives from REST PLAN and consistent with 22.09.160
	0'	0'	25' as measured from the elevation of the OHWM	subject to 22.08.90	N
Marine 4 - portion	0'	45'	<35' outright >35'<50' w/view anlysis >50' = variance	subject to NWDP or public access plan or per 22.08.70	yes per appr'd plan or min of 3 objectives from REST PLAN and consistent with 22.09.140
	0'	0'	N/A	subject to 22.08.70	N

¹ Mitigation sequencing is still required per 22.08.100 and a subsequent analysis can include or result in required restoration.

URBAN MARITIME - RECREATIONAL USE

Marine 11 - portion	0'	45'	<35' outright >35'<50' w/view anlysis >50' = variance	subject to NWDP or public access plan or per 22.08.70	yes per appr'd plan or min of 3 objectives from REST PLAN and consistent with 22.09.160
---------------------	----	-----	--	---	--

¹ Mitigation sequencing is still required per 22.08.100 and a subsequent analysis can include or result in required restoration.

22.11.30 E. - AQUATIC Development Regulation Matrix

AQUATIC

Reach #	Setback	Buffer	Height	Pub Acc Req'd	Hab Rest Req'd
waterward of OHWM	0'	0'	25' as measured from the elevation of the MHHT	N	N

Restoration Plan

APPENDIX B – RESTORATION PLAN

Contents:

1. Introduction
 2. Restoration Plan Requirements
 3. Define Urban Restoration
 4. Restoration priority Goals and Objectives
 5. Shoreline Implementation Strategies and Restoration Opportunities
 6. Specific Restoration Projects
-

THE GOALS OF THE RESTORATION PLAN ARE TO:

- ⇒ **Improve water quality**
- ⇒ **Re-establish and restore natural shoreline processes, restore degraded and lost habitat, and wildlife corridors**
- ⇒ **Improve connectivity of the shoreline environments to one another and to adjacent habitat corridors and/or habitat blocks that support priority species and species of local significance.**

1. Introduction

The Restoration Plan (RP) is designed to meet the requirements for restoration planning outlined in the Department of Ecology Guidelines; WAC 173-26-201 (2) (f) or, Guidelines. A Restoration Plan is not a regulatory document or a set of regulatory requirements. There are several regulatory sections in the SMP, however, that point to this RP as a guide for improving shoreline ecological function. Ultimately, a RP should include a vision for ecological restoration, including goals, objectives and opportunities. It also establishes city strategies for implementation, including recognition of existing and ongoing programs and provides a framework for long-term monitoring of shoreline restoration and shoreline conditions. While this restoration plan includes broad goals and objectives, the specific implementation measures, budgets, schedules, and individual monitoring programs will be needed for individual restoration projects as they occur.

The restoration priority goals, objectives, natural process / ecological function and potential metrics for restoration are shown on TABLE 1. The restoration opportunities and the associated objectives, activities and monitoring are shown on TABLE 2. Individual restoration projects are shown on TABLE 3.

TABLE 1 and TABLE 2 (and the 6 'Sections' specified above) are the elements of the RP that is approved by DOE as part of the SMP. The specific projects identified in TABLE 3 are not a part of the approved SMP hence, may be revised and adaptively managed without the need to amend the SMP per the requirements in BMC Section 22.07.20.

A Restoration Plan is an integrated component of shoreline master programs that are intended to achieve overall improvements in shoreline ecological functions city wide over a certain time

Restoration Plan

1 period when compared to the status of the shorelines upon adoption of an updated SMP. It must
2 be noted that despite the intent of the RP to achieve overall improvements to shoreline
3 ecological function over time it cannot be assumed that improvements to impaired systems is in
4 and of itself adequate. The overarching goal of Restoration Plans is to return shorelines to
5 functionally sustainable levels or, properly functioning conditions.

6 There is no required method or approach to development of Restoration Plans because
7 jurisdictions vary by size, conditions of shorelines vary by watershed as do the ecological
8 functions to be restored and availability of resources (grants, volunteers and equipment) can be
9 questionable.

10 The restoration plan builds on the 2004 City of Bellingham Shoreline Inventory and the
11 Characterization Report (Northwest Ecological Services, LLC) which provide a comprehensive
12 inventory and analysis of shoreline conditions in Bellingham. The input of the Technical
13 Advisory Committee (TAC) and the comments received from various agencies and special
14 interest groups that reviewed this RP has also been added in terms of a baseline condition. The
15 intent of this restoration plan is to provide the local governments, special interest groups, private
16 property owners or non-profit agencies with the information and guidance necessary to
17 implement a restoration project that will improve shoreline ecological function within a particular
18 shoreline reach and is consistent with community restoration goals.

19 To ensure that restoration goals are being achieved, it is important for the city to evaluate the
20 performance effectiveness of this plan and to adapt to changing conditions. At a minimum, this
21 restoration plan (as well as the entire Shoreline Master Program) will be evaluated by the
22 Department of Ecology for its ability to improve the overall ecological function of shorelines. The
23 actual improvements to ecological function will be re-evaluated again in seven years when the
24 2007 SMP is updated again.

25 **2. SMP Restoration Planning Regulatory Requirements**

26
27 WAC 173-26-201(2)(f)(i-vi) identifies the following elements to be included in an adequate
28 restoration plan.

29
30 (i) Identify degraded areas, impaired ecological functions, and sites with potential
31 for restoration.

32 (ii) Establish overall goals and priorities for restoration of degraded areas and
33 impaired ecological functions.

34 (iii) Identify existing and ongoing projects and programs that are currently being
35 implemented, or are reasonably assured of being implemented (based on an
36 evaluation of funding likely in the foreseeable future), which are designed to
37 contribute to local restoration goals.

38 (iv) Identify additional projects and programs needed to achieve local restoration
39 goals, and implementation strategies including identifying prospective funding
40 sources for those projects and programs.

41 (v) Identify timelines and benchmarks for implementing restoration projects and
42 programs and achieving local restoration goals.

Restoration Plan

(vi) Provide for mechanisms or strategies to ensure that restoration projects and programs will be implemented according to plans and to appropriately review the effectiveness of the projects and programs in meeting the overall restoration goals.

3. Define Urban Restoration:

The term “restoration” has a number of definitions, all of which share similar ideas. They often refer to the return of an area to a previous condition by improving the biological structure and function (Diefenderfer 2003). Examples of definitions of restoration put forth by various authors and agencies include bringing back a former, normal, or unimpaired state; a return to a previously existing natural condition; reestablishing vegetation; and returning a damaged ecosystem to its pre-disturbed state. The DOE shoreline master program guidelines state that:

“Restore,” “Restoration,” or “ecological restoration” means the reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including but not limited to revegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.

The Society of Wetland Scientists (2000) defines wetland restoration, which is similar to shoreline restoration, as actions taken in a converted or degraded natural wetland that result in the reestablishment of ecological processes, functions, and biotic/abiotic linkages that lead to a persistent, resilient system integrated within its landscape. In an effort to be clear and consistent in the discussion of restoration, five key elements of the concept of restoration are adapted from the Society :

1. Restoration is the reinstatement of driving ecological processes.
2. Restoration should be integrated with the surrounding landscape.
3. The goal of restoration is a persistent, resilient system.
4. Restoration should generally result in the historic type of environment but may not always result in the historic biological community and structure.
5. Restoration planning should include the development of structural and functional objectives and performance standards for measuring achievement of the objectives.

In this SMP, restoration is used broadly to also include conservation and enhancement actions. Conservation is different from restoration as described above in that it protects areas relatively free of degradation. Enhancement, which improves shoreline functions, but may not result in restoration of underlying process, may be more viable than restoration in some instances.

Restoration in Urban Settings (adapted from Borde et al., 2004)

More than 50% of the U.S. population lives on the coast, with a higher growth rate in coastal counties than in the country as a whole (NOAA 1998). The result of this development has been the loss of a high percentage of coastal habitats that were once present in urban areas.

Restoration Plan

1 Restoration in urban areas presents the following challenges:
2

- 3 • Multiple inputs water-shed wide that are outside of a restoration site.
- 4 • Limited sites available for restoration
- 5 • Limited reference sites
- 6 • Confounding factors, such as poor water quality, chemical contamination, and
7 altered hydrology
- 8 • Fragmented habitat
- 9 • High costs due to land acquisition expenses and the amount of work required to
10 reverse habitat modifications
- 11 • Differing needs for coastal resources (e.g., economic, cultural, social, recreational,
12 environmental) (Brammeier 2003)
- 13 • Differing values of local citizens (Ehrenfeld 2000).

14
15 However, these challenges are often offset by the following benefits:
16

- 17 • The restored habitat provides pockets of habitat where otherwise there would be
18 none
- 19 • Restored habitat can provide a connectivity to adjacent, more functional habitats
20 (TAC)
- 21 • Additional natural landscapes for urban residents (Ehrenfeld 2000)
- 22 • A heightened public awareness of coastal ecosystems (Milano 1999)
- 23 • Educational opportunities
- 24 • Public involvement in the restoration process of highly visible projects, resulting in
25 community project stewardship

26
27
28 Urban restoration represents the perhaps the most critical and challenging situation to use the
29 principles of landscape ecology for choosing a restoration site. While the challenges of urban
30 restoration are many, the importance of habitat restoration in these settings is monumental from
31 an ecological and societal perspective. The ecological importance of projects in urban areas can
32 be disproportional to the size of the project because of the lack of ecological habitat in the
33 surrounding areas (Borde et al., 2004).

34 35 **4. Restoration Priority Goals and Objectives**

36
37 The priority goals and objectives below were developed for the City of Bellingham 4-26-07
38 DRAFT SMP in order to implement the following Bellingham Comprehensive Plan goals and
39 visions:
40

41 **Implementation of TMDL Response Plan for Lake Whatcom:** This Plan is currently being
42 developed by the City of Bellingham and Whatcom County and is anticipated to have a draft
43 completed for City / County Council review mid 2010.
44

45 **Vision for Bellingham #57:** Citizens and property owners join forces to protect the quality of
46 Lake Whatcom, its watershed, the City's other lades and creeks and Bellingham Bay. Through
47 community education, regulations, performance based development standards and public
48 private cooperation, the community as a whole supports protection of these natural resources
49 as a priority. (Comprehensive Plan, Chapter 1, Framework Goals and Policies)

Restoration Plan

1 Parks, Recreation and Open Space Plan; Chapter 8:
2

3 **8.1 Resource conservancies**

4 Incorporate unique ecological features and resources into the park system to
5 protect threatened species, preserve habitat, and retain migration corridors that
6 are unique and important to local wildlife.
7

8 **Wildlife habitat**

9 a: Identify and conserve critical wildlife habitat including nesting sites, foraging
10 areas, and migration corridors within or adjacent to natural areas, open spaces,
11 and the developed urban area.
12

13 b: Preserve especially sensitive habitat sites that support threatened species and
14 urban wildlife habitat - such as the shoreline areas along the Little Squalicum,
15 Squalicum, Whatcom, and Padden Creeks.
16

17 **Natural areas**

18 a: Preserve and protect significant environmental features including unique
19 wetlands, open spaces, woodlands, shorelines, waterfronts and other
20 characteristics that support wildlife and reflect Bellingham's resource heritage –
21 such as Lake Padden and Lake Whatcom.
22

23 b: Provide public access to environmentally sensitive areas and sites that are
24 especially unique to the Bellingham area - such as Chuckanut Bay.
25

26 **8.2 Open spaces and preserves**

27 Develop a high quality, diversified park system that preserves and enhances
28 significant environmental resources and features.
29

30 **Open spaces**

31 a: Define and conserve a system of open space corridors or separators to
32 provide definition between natural areas and urban land uses within the
33 Bellingham developing area – such as Connelly Creek Nature Area.
34

35 b: Increase natural area and open space linkages within the developed area,
36 particularly along the BNSF Railroad and I-5 Interstate corridors.
37

38 c: Preserve environmentally sensitive areas as natural area linkages and urban
39 separators, particularly the Whatcom, Padden, and Squalicum Creeks corridors.
40 (Bellingham Comprehensive Plan. Chapter 7, Parks, Recreation and Open Space)
41

42 **Bellingham Comprehensive Plan. Chapter 7, Parks, Recreation and Open Space** 43 **(2005 Parks, Recreation and Open Space Plan; Chapter 9, Plan Elements; Resource** 44 **Conservancies;)** 45

46 Vision: As described herein, wildlife habitat and resource conservancies may be realized
47 through:
48

- 49 • Acquisition of title and/or development rights of habitat lands - that would
50 otherwise be developed for other land uses;

Restoration Plan

- Provision for public access and interpretive use - which would not be possible if the lands remained in private ownership; and
- Conservation for wildlife migration corridors - through developing urban areas and neighborhoods.

The RP priority goals and objectives are also intended to be consistent with the 'Preservation / Enhancement Opportunities' specified within each reach in the 2004 City of Bellingham Shoreline Characterization. (APPENDIX C)

Ultimately, the City's foundational goal is to be able to show that there has been a net overall gain in shoreline ecological function – whether through restoration planning and implementation or via SMP policies and development regulations.

Characterizing the variety of goals and visions stated above into three basic priority goals for restoration city-wide, they would be:

1. Improve water quality
2. Re-establish and restore natural shoreline processes, restore degraded and lost habitat, and wildlife corridors,
3. Improve connectivity of the shoreline environments to one another and to adjacent habitat corridors and/or habitat blocks that support priority species and species of local significance.

Objectives identify specific measurable actions that can be taken to achieve the stated goals. For example, to meet the goal of improving water quality, an objective might be to remove creosote pilings. The following objectives have been developed to achieve the restoration priority goals:

1. Restore and protect habitat forming processes.
2. Restore and protect wildlife corridors.
3. Restore and protect native vegetation and native species.
4. Restore and protect wetlands and salt marsh habitat.
5. Remove intertidal fill, creosote contaminated logs, pilings and debris.
6. Remove or improve fish passage barriers.
7. Increase Large Woody debris availability and recruitment opportunities.
8. Manage and treat stormwater to improve water quality, decrease peak flow events, and increase implementation of LID practices.
9. Perform voluntary and/or State mandated remediation of contaminated sediments in aquatic and upland environments.
10. Purchase development rights on undeveloped tracts / blocks that are abutting critical areas in order to manage water quality and the land as fish and wildlife habitat conservation areas.
11. Purchase conservation easements that stipulate no development and allow public access for recreation, if compatible with the land.
12. Purchase right-of-first-refusal on property that includes important habitat; if acquired, consider a minimal development scheme to help cover the cost of acquisition while maintaining the ecological integrity of the property.

Restoration Plan

1
2 These objectives assist with defining actions or projects to restore the natural processes and
3 ecological functions identified in the Characterization Report as ‘not properly functioning.’
4

5 Opportunities and strategies are then identified as means of implementing the objectives. At this
6 level, no measurable performance standards are applied to goals. For example, the overall goal
7 is to improve water quality to meet the vision of a restored ecosystem, not to improve it by "X"
8 amount. Individual restoration projects that may be implemented as part of this plan are
9 expected to include specific measurable goals.
10

11 In accordance with the DOE shoreline guidelines, it is also valuable to establish general
12 priorities. Restoring environmental processes (such as hydrology) provides the foundation for
13 habitat structures (i.e., Large Woody Debris and back or side channels, braided channels), and
14 that structure in turn, supports habitat functions. (i.e., production, food support, rearing, etc.)
15 (Thom. 2003) That is, restoration of habitat functions may be ineffective if habitat structures and
16 controlling factors are not also restored. While Thom states, “There is no universally accepted
17 method for setting priorities for nearshore sites for restoration or for determining what strategies
18 are best applied to each site. We have found that restoration of controlling factors is the key to
19 successful and long-term restoration.” General priorities for shoreline management could follow
20 mitigation sequencing, specified in the 4-26-07 DRAFT SMP; Section 22.08.100. That is,
21 conservation and preservation should be the highest priority, followed by avoidance, followed by
22 restoration, then enhancement and monitoring.
23

24 Overall priority should be given to protection and restoration of natural processes that are
25 needed to support habitat structure and habitat functions.
26

27 Thorough scientific evaluation and prioritization of all restoration opportunities was not feasible
28 for this SMP. However, Bellingham can work with local and regional agencies and scientists to
29 help identify restoration of the greatest importance according to scientific criteria.
30

31 Ultimately, priorities will be opportunistic based on site access, available funding, and feasibility.
32 Of the restoration opportunities listed, stormwater system improvements to address untreated
33 stormwater outfalls may be the most readily feasible for the City due to public control of the
34 system, a dedicated funding sources and the need to also address clean water planning
35 requirements to meet EPA standards.
36

37 Table 1, below, shows the relationship of the goals, objectives, restored natural processes,
38 ecological functions and how those improvements might be measured. Table 1 is not meant to
39 be an exhaustive list and does not prohibit other meaningful objectives from being pursued. The
40 first column shows the goals, the second column shows the objectives associated with those
41 goals and the third column shows the natural process and ecological function that will be
42 enhanced by completing the objectives. Objectives are found under multiple goals affecting
43 different natural processes and ecological functions. Potential metrics for measuring and
44 monitoring each objective are listed in the far right hand column. Opportunities for
45 implementation are listed in Table 2 in the next section.
46

Restoration Plan

Table 1: Restoration Goals and Objectives

Restoration Goal	Objective	Restored Natural Process	Ecological Function	Potential Metrics
Improve water quality	Implement the TMDL Response Plan for Lake Whatcom	Minimize pollutant loading (phos & fecals) to Lake Whatcom. Re-introduce clean water to Lake.	Increase dissolved oxygen and reduce bacteria	De-listing of water-body pursuant to 303 (d) list; Federal Clean Water Act
	Protect and restore wetlands and salt marsh habitat	Hydrologic Processes, Sediment Transport, Nutrients	Spawning rearing habitat area created	water quality measurements
			Water Storage	Wetland acreage
			Sediment Storage	Wetland functions
	Manage and treat stormwater to improve water quality, decrease peak flow events, increase implementation of LID practices	Hydrologic Processes, Sediment Transport, Nutrients	Toxic Compound Removal Nutrient Removal	Wetland ratings Water quality measurements
			Water Storage	
Sediment Storage Toxic Compound Removal			Water quality measurements Storm flows	

Restoration Plan

	Protect and restore native vegetation and native species	Hydrologic Processes, Nutrients	Nutrient Removal Water Storage	% impervious surface in basin
	Remove intertidal fill/restore beach deposits and processes	Sediment Transport	Sediment Storage Toxic Compound Removal Nutrient Removal Water Storage	Acreage of vegetation Water quality measurements
	Perform voluntary and / or State mandated remediation of contaminated sediments in aquatic and upland environments. Sediment Transport	Hydrologic Processes; in-water and ground-water	Sediment Storage Nutrient Removal Toxic Compound Removal	Acreage or number of restored/remaining impaired areas
Remove/replace creosote contaminated logs, pilings and debris		Toxic Compound Removal, Support Vegetation	# creosote pilings	Linear feet of bulkhead Cubic yards of material removed
Restoration Goal	Objective	Natural Process	Ecological Function	Potential Metrics

Restoration Plan

Re-establish and restore shoreline ecological function and processes AND restore degraded and lost habitat and corridors.	Protect and restore habitat forming processes, wildlife corridors, native vegetation and species.	Sediment Transport	Large Woody Debris Recruitment	Acreage of vegetation
		Vegetation	Organic Material Availability	Degree of diversity
		Nutrients	Rearing Habitat	Species supported
		Habitat	Resting Habitat	Connectivity/areas of isolation
			Predation Avoidance Habitat Migration Corridors Food Production Food Delivery Support Vegetation Support Vegetation	Extent of tree canopy
	Protect and restore wetlands salt marsh habitat, and estuarine and lagoon functions	Hydrologic Processes		Wetland acreage
		Sediment Transport	Organic Material	Wetland functions

Restoration Plan

		Vegetation Nutrients Habitat	Availability Rearing Habitat Resting Habitat Predation Avoidance Habitat Migration Corridors Food Production Food Delivery Support Vegetation	Wetland ratings
	Manage and treat stormwater to improve water quality, decrease peak flow events, increase implementation of LID practices	Sediment Transport		Acreage or number of restored/remaining impaired areas
		Vegetation Nutrients Habitat	Woody Debris Recruitment Organic Material Availability Rearing Habitat Resting Habitat Predation Avoidance Habitat Migration Corridors Food Production	

Restoration Plan

	Manage and treat stormwater to improve water quality, decrease peak flow events, increase implementation of LID practices	Hydrologic Processes Sediment Transport Nutrients	Food Delivery Water Storage Sediment Storage Toxic compound removal Nutrient Removal	Water quality measurements
Restoration Goal	Objective	Natural Process	Ecological Function	Potential Metrics
Improve connectivity of the shoreline environments to one another and to adjacent habitat corridors and/or habitat blocks that support priority	Purchase development rights on undeveloped properties, conservation easements and right-of-first refusal on properties identified for serving important habitat functions		Allows subject properties to remain undisturbed and foster strategic connection of habitat corridors and blocks.	

Restoration Plan

species and species of local significance.				
	Protect and restore native vegetation and native species	Hydrologic Processes Sediment Transport Vegetation Nutrients Habitat	Woody Debris Recruitment Organic Material Availability Rearing Habitat Resting Habitat Predation Avoidance Habitat Migration Corridors Food Production Food Delivery Support Vegetation	Acreage of vegetation Connectivity/areas of isolation Extent of tree canopy Linear feet of bulkhead
	Protect and restore wetlands, salt marsh habitat and estuarine and lagoon functions	Hydrologic Processes Sediment Transport Vegetation	Woody Debris Recruitment Organic Material Availability	Wetland acreage Wetland functions Wetland ratings

Restoration Plan

	<p>Remove intertidal fill/ restore beach deposits and processes</p>	Nutrients	Rearing Habitat	Connectivity/areas of isolation
		Habitat	Resting Habitat Predation Avoidance Habitat Migration Corridors Food Production Food Delivery	
Hydrologic Processes		Support Vegetation	acreage of restored remaining impaired acres	
Sediment Transport		Woody Debris Recruitment		
Vegetation		Organic Material Availability	shoreline connectivity/areas of interruption	
Nutrients Habitat	Rearing Habitat Resting Habitat Predation Avoidance Habitat Migration Corridors Food Production Food Delivery			

Restoration Plan

5. Restoration Implementation Strategies and Opportunities

Restoration implementation strategies are adopted or identified programs and/or plans that help achieve the Restoration Plan priority goals from Section 4 which were:

1. Improve water quality
2. Re-establish and restore natural shoreline processes, restore degraded and lost habitat, and wildlife corridors,
3. Improve connectivity of the shoreline environments to one another and to adjacent habitat corridors and/or habitat blocks that support priority species and species of local significance.

These implementation strategies should include at least one of the objectives from Section 4, which were:

1. Restore and protect habitat forming processes.
2. Restore and protect wildlife corridors.
3. Restore and protect native vegetation and native species.
4. Restore and protect wetlands and salt marsh habitat.
5. Remove intertidal fill, creosote contaminated logs, pilings and debris.
6. Remove or improve fish passage barriers.
7. Increase Large Woody debris availability and recruitment opportunities.
8. Manage and treat stormwater to improve water quality, decrease peak flow events, and increase implementation of LID practices.
9. Perform voluntary and/or State mandated remediation of contaminated sediments in aquatic and upland environments.
10. Purchase development rights on undeveloped tracts / blocks that are abutting critical areas in order to manage water quality and the land as fish and wildlife habitat conservation areas.
11. Purchase conservation easements that stipulate no development and allow limited public access for recreation, if compatible with the land.
12. Purchase right-of-first-refusal on property that includes important habitat; if acquired, consider a minimal development scheme to help cover the cost of acquisition while maintaining the ecological integrity of the property.

The City has restoration implementation strategies that are currently in place and existing plans and programs that are being updated. These strategies are not usually regulatory provisions found within Bellingham's Municipal Code. (BMC) Typically, they are developed in a comprehensive planning effort and result in a set of recommended strategies developed by a technical team comprised of those that have expertise or experience with the relevant topic.

What follows is an up-to-date summary, although not exhaustive, of restoration implementation strategies that the City is currently involved in order to achieve the Priority Goals.

Restoration Plan

1 **“TMDL Response Plan” by City of Bellingham and Whatcom County.**

2 This Plan is currently being developed by the City of Bellingham and Whatcom County
3 and is anticipated to have a draft completed for City / County Council review mid 2010.

4
5 **“City of Bellingham Wildlife Habitat Assessment” by Nahkeetah Northwest
6 Wildlife Services, December 2003, and as amended.**

7 In cases where the City (and in cooperation with the County, Water District #10 and
8 other applicable agencies including non-profit organizations) intend to take action
9 relevant to Priority Goal #3 and Objectives 10-12, from above, the ‘City of Bellingham
10 Wildlife Habitat Assessment’ should be consulted and it’s management
11 recommendations implemented whenever feasible and practical.

12
13 **“Stream Habitat Restoration Guidelines” prepared for the Washington State
14 Aquatic Habitat Guidelines Program, 2004.**

15 This document provides uses with a comprehensive list of watershed scale factors and
16 criteria to consider which are crucial to make informed decisions when planning and
17 designing stream restoration and rehabilitation projects. Factors and criteria include:

- 18
19 Site, reach and watershed assessments
20 Problem identification
21 Identifying and selecting an approach
22 General approaches to solving common restoration objectives
23 Stream and riparian restoration techniques

24
25 Watershed processes and conditions that shape stream channels, stream ecology,
26 geomorphology, hydrology, hydraulics, planting considerations and erosion control and
27 construction considerations are also presented in this document.

28
29 City staff should consult this manual as part of their planning and design for restoration
30 projects. Private restoration projects should be informed of this document and utilize it
31 when conducting required or voluntary habitat restoration.

32
33 Private property owners should also explore opportunities for enrollment in the Open
34 Space Taxation Program as specified in RCW 84.34 and WAC 448-30 in order to satisfy
35 Objectives 10-12. The basics of this program can be found on Whatcom County’s
36 webpage under the “Assessor” sub-category.

37
38 **Lake Whatcom Management Program. WEBSITE: lakewhatcom.wsu.edu**

39 This program has been developed by the legislative bodies, a management team, the
40 Inter-jurisdictional Coordinating Team, agency staff, and advisory committees from The City
41 of Bellingham, Whatcom County and Water District 10. The initial piece of legislation
42 that jumpstarted these efforts was the Joint Resolution that was adopted by the City of
43 Bellingham, Whatcom County, and Water District 10 in 1992; Joint Resolution Whatcom County
44 92-73, Bellingham No. 92-69, District No. 560.

45
46 The goals within this Resolution are as follows:
47

Restoration Plan

- 1 • To recognize Lake Whatcom and its watershed as the major drinking-water reservoir
2 for the County and develop public and private management principles for the lake
3 and watershed consistent with a drinking water reservoir environment. Affirm this
4 goal by establishing the name: Lake Whatcom Reservoir.
- 5 • To protect, preserve and enhance water quality and manage water quantity to
6 ensure long-term sustainable supplies for a variety of uses, with priority placed on
7 domestic water supply. Management programs and actions will be made in
8 recognition of existing contractual agreements and potential for review and
9 renegotiation in light of these goals.
- 10 • To prioritize protection over treatment in managing Lake Whatcom and its
11 watersheds. Management actions shall reflect a long-term view of replacement or
12 treatment costs.
- 13 • To manage water quantity to sustain long-term efficient use of the water for
14 beneficial uses within the county that are consistent with a drinking-water reservoir,
15 and recognize the integral link with the Nooksack River and associated water
16 resource concerns.
- 17 • To ensure that opportunities for public comment and participation are provided in
18 policy and management program development, and to promote public awareness
19 and responsible individual actions.
- 20 • To promote learning, research, and information opportunities which better our
21 understanding of the watershed system, the impacts of activities, and the benefits
22 and potentials of policies implemented.

23
24 (This program is an implementing strategy of Priority Goal #1, Objective #8)

25 26 **Lake Whatcom Watershed Property Acquisition Program; Public Works** 27 **Department.**

28 This program is funded through water usage fees and its main objective is to protect our
29 drinking water source by purchasing tracts of undeveloped land within the Lake
30 Whatcom Watershed. This essentially removes a certain density or, number of units
31 from the development folio within the watershed. The City places a higher importance
32 on parcels that are contiguous to already protected lands or contain sensitive
33 environmental features such as tributaries to the Lake. This program also helps to
34 protect parcels by utilizing conservation easements or restrictive covenants.

35
36 Whatcom County, Water District #10 and Sudden Valley Community Association are
37 also instrumental in this program to protect our drinking water source.

38
39 At the time of this publication the program has protected approximately 1,340 acres and
40 eliminated about 660 developable units from impacting the watershed. This program is
41 expected to continue long into the future in order to protect the Lake Whatcom
42 Reservoir.

43
44 (The total amount of acres preserved in the Lake Whatcom watershed as of this printing
45 by a variety of agencies including the Whatcom Land Trust, the City and County Park

Restoration Plan

1 Departments and the Department of Natural Resource is 2,519. (This program is an
2 implementing strategy of Priority Goals #1-3, Objectives #10-12)

3 4 5 **Urban Streams Monitoring by City of Bellingham Public Works Department and** 6 **TMDL study's in coordination with Department of Ecology.**

7 This program, initiated in 1990, was developed and designed to provide water quality
8 data for all the City's urban streams in order to measure compliance with the State's
9 surface water quality standards specified in WAC 173-201. For example, within the
10 streams, the City monitors the following parameters: temperature, fecal coliform,
11 dissolved oxygen, pH, turbidity and conductivity. This program is not regulatory and
12 does not provide management recommendations.

13
14 When a stream (or any water of the state) exceeds water quality thresholds, the
15 Department of Ecology in coordination with the applicable jurisdiction, initiates a water
16 cleanup plan or 'TMDL.' (Total Maximum Daily Load) These water clean up plans
17 describe the type, amount and sources of water pollution in a particular water body, they
18 analyze how much the pollution needs to be reduced or eliminated to meet water quality
19 standards and they provide targets and strategies to control the pollution. (This program
20 is an implementing strategy of Priority Goal #1, Objective #8)

21 22 **Update of the City's 1995 Watershed Master Plan (Ongoing)**

23 The update of this plan is being conducted by the City's Public Works Department and
24 is anticipated to be complete in July; 2007. This plan will include hydrologic simulation of
25 different flow patterns and intensities within the City's streams and floodplains and
26 ultimately, create a basis for basin or, watershed planning. This planning will assist the
27 City anticipate impacts from flooding and high flows, delineate areas within basins for
28 future build-out and identify restoration opportunities and capital improvement projects
29 that will restore shoreline ecological functions and processes. This plan will not be a
30 regulatory document but will provide management recommendations in order to achieve
31 its objectives. (This plan is an implementing strategy of Priority Goal # 2, Objective #'s 1-4,
32 6-8 and 10)

33 34 **Nooksack Salmon Enhancement Association Strategic Plan. WEBSITE: n-sea.org**

35 Nooksack Salmon Enhancement Association (NSEA) is a community-based nonprofit
36 organization dedicated to restoring sustainable wild salmon runs in Whatcom County.
37 Their Strategic Plan from October, 2005 has ten goals aimed at achieving their mission.
38 Paraphrased, these are:

- 39 1. Enhance, rehabilitate and restore critical salmonid habitat.
- 40 2. Evaluate NSEA's salmonid restoration activities through implementation,
41 effectiveness and validation monitoring.
- 42 3. Develop partnerships with landowners to identify and implement salmonid
43 recovery projects.

Restoration Plan

- 1 4. Implement watershed based stewardship programs that integrate education with
2 restoration outreach.
- 3 5. Develop and implement education programs for elementary through post-
4 secondary level students.
- 5 6. Develop community awareness of NSEA.
- 6 7. Maintain NSEA's focus and identity as a community based nonprofit.
- 7 8. Integrate and empower volunteers to assist NSEA in all parts of its mission.
- 8 9. Strengthen internal structure to support effective and efficient operations.
- 9 10. Maintain a diverse, stable and predictable funding base and strong financial
10 resources and reserves.

11 NSEA has recently expanded their focus to partner with the Washington State
12 Department of Fish and Wildlife in order to develop the 'Lake Whatcom Native Salmon
13 and Trout Conservation and Recovery Plan.' This plan targets the recovery of native
14 salmonids in Lake Whatcom including kokanee and cutthroat trout. With the cooperation
15 from the City of Bellingham, Whatcom County and Water District #10, this plan will
16 support the restoration and conservation efforts necessary to recover these fish
17 populations. (This plan is an implementing strategy of Priority Goal #2 and #3, Objective
18 #'s 1-4, 6-8, 10)

19
20 **October 10, 2006 Draft Supplemental EIS: Bellingham Bay Comprehensive**
21 **Strategy – APPENDIX A and the Habitat Restoration Documentation Report.**
22 The Bellingham Bay Comprehensive Strategy (CS) was developed by the Bellingham
23 Bay Demonstration Pilot Project team as a supplement to the original EIS (October
24 2000) for the Whatcom Waterway Cleanup Site. This CS was a bay-wide approach to
25 planning and included 8 sub-areas; each with its own recommended strategy, a
26 description of anticipated land uses, habitat restoration opportunities and potential
27 sediment sites, cleanup, disposal and source control issues.

28
29 The anticipated land uses and habitat restoration opportunities in the CS was the basis
30 for more detailed work developed by the Habitat Subcommittee, (a sub-group of the
31 Pilot Team) the Waterfront Futures Group, and an interagency workshop that created
32 the "Opportunities and Ideas for Habitat Restoration and Water Access on Urban
33 Bellingham Bay" in January, 2004 as part of the Waterfront Futures Group's planning
34 efforts.

35
36 The overall goal of the Habitat Restoration Documentation Report (February, 1999) is to
37 'Maximize Bellingham Bay habitat productivity to the extent possible.' The objectives
38 developed to achieve this goal are listed below – some of which are condensed and
39 captured in TABLE 2:

- 40
- 41 ⇒ Containing or removing shoreline landfills.
- 42 ⇒ Maximizing shoreline riparian vegetation.
- 43 ⇒ To the extent possible achieving a net gain in in-water habitat, saltmarsh, and
44 marine buffer.

Restoration Plan

- 1 ⇒ Providing habitat connectivity.
- 2 ⇒ Restoring the viable estuaries known to support a variety of species.
- 3 ⇒ Removing remnant in-water structures.
- 4 ⇒ Removing historic shoreline fills.
- 5 ⇒ Removing or replacing creosote treated timber piles.
- 6 ⇒ Identifying opportunities for restoration that would not necessarily be associated
- 7 with compensatory mitigation.
- 8 ⇒ Restore historical eelgrass beds. (Zostera Marina)
- 9 ⇒ Modify substrates.
- 10 ⇒ Create shallow water habitat by modifying elevations.
- 11 ⇒ Establishing habitat reserve areas in areas where certain habitats are difficult to
- 12 replace and/or that support multiple species and/or multiple life history stages for
- 13 a variety of species.

14

15 The Bellingham Bay Action Team remains active in identifying ways in which the habitat
16 restoration opportunities specified in the plans specified above and those within TABLE
17 3 can be implemented. (This plan is an implementing strategy of Priority Goal #1-3,
18 Objective #'s 1-9)

19

20 **Master Restoration Plan (MRP): City's Environmental Resources Division of** 21 **Public Works. (Ongoing)**

22 In 2007, the City's Environmental Resources Division of the Public Works Department
23 will be retaining a consultant to begin developing a restoration master plan which will
24 identify priority restoration projects based on the foundation laid by this Restoration
25 Plan. This work can be added to TABLE 3 without having to amend the RP via the SMP
26 Amendment process outlines in BMC Section 22.07.20.

27

28 **Residential Stormwater Retrofit Project (RSRP): City's Environmental Resources** 29 **Division of Public Works.**

30

31 This project makes it easy for single family home owners within the Lake Whatcom
32 watershed to voluntarily retrofit or install SFR stormwater treatment systems.

33

34 **Whatcom County's Shoreline Master Program Update – Background Information,** 35 **Volume III; Restoration Plan**

36 The County's Restoration Plan has three watersheds that overlap into City Jurisdiction.
37 These are the Squalicum Creek, Lake Whatcom and Bellingham Bay watersheds.

38

39 The portion of the Squalicum Creek watershed that is within the County is not
40 considered a shoreline of the state (does not have adequate flow) but nonetheless is a
41 critical area. These upper reaches have restoration potential that can affect the
42 shoreline ecological function of the portion of Squalicum Creek that is within the City
43 limits and Shoreline jurisdiction. (Please see Section 4.2.1 of the County's Restoration
44 Plan.)

45

Restoration Plan

1 Lake Whatcom is jointly managed by Whatcom County, the City and Water District #10.
2 The County is responsible for the nearly all of the Lake's tributaries through their CAO,
3 SMP and other applicable development regulations. The County also references the
4 Lake Whatcom Management Program in their Restoration Plan as the main body of
5 work utilized as a guide for improving the ecological function of that water-body over
6 time. (Please see Section 4.2.2 of the County's Restoration Plan.)
7

8 The City and the County restore through a variety of existing programs whenever
9 feasible within the many watersheds that contribute to Bellingham Bay. Specifically, the
10 County's Restoration Plan identifies those shorelines within Bellingham Bay proper that
11 are not within the city limits. These are shorelines south of Chuckanut Bay and the
12 shoreline north of Mount Baker Plywood also known as Fort Bellingham and around to
13 the southern end of Lummi Shore. (Please see Section 4.2.3 of the County's
14 Restoration Plan.)
15

16 Implementation strategies are mostly dependent upon available funding and individuals
17 and/or groups to perform the work. The three groups with the strongest funding sources
18 and most commonly performing restoration work city-wide are; the Washington
19 Conservation Crew, Greenways and the Nooksack Salmon Enhancement Association.
20 The City of Bellingham and Whatcom County are also involved in seeking funding and
21 resources and in some cases overlap with one another and the non-profit groups
22 specified above. (There are many other smaller groups and organizations that perform
23 important restoration work city-wide) Given this, there are other determining factors for
24 implementation of restoration projects. These implementation strategies listed above do
25 not account for the many other Federal, State and local agencies that have either
26 developed or are creating new comprehensive restoration plans and programs for local
27 accessibility and utilization. These agencies include but are not limited to;
28

29 Puget Sound Action Team
30 Puget Sound Nearshore Restoration Partnership
31 Department of Ecology
32 Department of Natural Resources
33 Department of Fish and Wildlife
34 Marine Resources Committee
35 Nooksack Salmon Enhancement Association
36 Lummi and Nooksack Tribes
37 Nooksack Recovery Team
38 Northwest Indian College
39 Public Utility District #1
40

41 Restoration opportunities are abundant in every habitat type, whether within freshwater,
42 within the marine nearshore or within an estuarine environment. Examples at various
43 scales include; marine and tidal freshwater marshes; freshwater river and stream
44 corridors; unvegetated tidal flats; pocket estuaries; pocket beaches; forested and
45 unforested wetlands; eelgrass meadows; kelp beds; shellfish beds; and rocky and
46 gravel shorelines. (Diedenderer 2003)

Restoration Plan

1
2 Innumerable local projects exist. Several large-scale restoration projects, each of which
3 encompasses multiple habitats, have also been initiated in Bellingham in recent years.
4 For example: Whatcom Creek estuary/Holly Street Landfill, Post Point Lagoon, GP Log
5 Pond and various reaches of our urban stream corridors.
6

7 It is becoming increasingly clear that the estuaries and nearshore areas of the Pacific
8 Northwest provide critical feeding and rearing habitat for salmon populations.
9 (Simenstad and Cordell 2000; Williams *et al.* 2001) Salmon restoration efforts, once
10 highly focused in the watersheds where salmon spawn, are now emphasizing the
11 estuary and nearshore. (Diedenderer 2003).
12

13 Sustainable development necessitates that restoration projects be considered in a
14 landscape context. External influences may affect the performance of restored coastal
15 ecosystems, even as changes brought about by restoration affect surrounding areas.
16

17 Site-specific evaluation of the landscape in the planning phase of a restoration project is
18 critical. Attributes such as size, shape, configuration, and connectedness dramatically
19 affect the net functional habitat provided by a restoration project.
20

21 For sustainable development to succeed, the goal today must not be simple
22 maintenance of the status quo, but a net improvement of the ecosystem. Urban
23 ecosystems are shrinking or experiencing diminished functionality (Field 1998; Fonseca
24 *et al.* 1998; Thayer 1992; Turgeon *et al.* 2002). The NRC (2001) has shown that the no
25 net loss policy for wetlands is not working. Simply put, we have failed to constrain
26 development to minimize damage; we do not compensate for damages immediately so
27 as to offset any losses; and we do not have a high degree of predictability in the
28 outcome of restoration efforts. This means that the size, quality, location, and viability of
29 a restoration project meant to compensate for development must overwhelmingly and
30 obviously compensate for the expected losses. This approach provides a cushion to
31 account for uncertainties in the ability of combined conservation and restoration efforts
32 to meet their goals. As the level of experience, body of knowledge, and record of
33 success increases, the level of uncertainty decreases along with the magnitude of effort
34 required to compensate for uncertainty (Diedenderer 2003).
35

36 Below are examples from Fidalgo Bay, Washington for ecological evaluation criteria for
37 use in selecting restoration sites (Borde et al., 2004).
38

- 39 - Feasibility
- 40 - Opportunity to improve ecosystem function
- 41 - Site protection
- 42 - Potential for sediment deposition/transport processes to support sustained
- 43 function
- 44 - Potential to benefit threatened and endangered species
- 45 - Probability of success
- 46 - Habitat connectivity

Restoration Plan

- 1 - Restore or replace limited habitat
- 2 - Sustainability of habitat functions
- 3 - Type of habitat replacement
- 4 - Timing of implementation

5
6 Table 2 identifies opportunities for each shoreline segment that have been identified in
7 the 2004 City of Bellingham Shoreline Characterization and through other shoreline
8 planning processes. These are opportunities for restoration that correspond to the RP
9 goals and objectives.

10
11 This is an extensive list that likely exceeds near term funding opportunities, and yet, is
12 not exhaustive. Additional restoration opportunities may continue to be identified
13 through local and regional shoreline monitoring and planning actions. The City may
14 periodically identify additional restoration opportunities that are consistent with the
15 objectives of this restoration chapter.

16
17 Restoration projects are most viable when they occur on publicly owned properties or
18 properties that are dedicated to the City specifically for restoration purposes.
19 Restoration projects on publicly owned properties allow for more extensive and
20 complete projects to be designed and implemented.

21
22 Restoration projects on private property where access for said restoration has been
23 granted via an access or conservation easement is becoming more common as those
24 properties become more economically feasible to develop. Conservation easements are
25 typically granted by private landowners across required buffer areas as a result of a
26 development project. Access easements for restoration projects are typically granted by
27 cooperative private landowners at the request of the City.

28
29
30

Restoration Plan

Table 2 : Restoration Opportunities and Objectives

Restoration Opportunity	Restoration Objective	Restoration Activity	Monitoring Activities
Lake Whatcom			
<p>1. Improve water quality 2. Restore and re-establish natural shoreline processes 3. Promote activities that support priority species and species of local significance.</p>	<p>Manage and treat stormwater, decrease peak flow events and increase implementation of LID practices. Restore habitat forming processes. Remove nearshore fill, bulkheads, dilapidated pilings and debris.</p>	<p>1. Implementation of the TMDL Response Plan as well as the Interjurisdictional Coordinating Team recommendations; 2010-2014 Lake Whatcom work plan tasks. 2. 1992 Adopted Goals and Policies Joint Resolution Whatcom County 92-73, City of Bellingham No. 92-69 , Lake Whatcom Water and Sewer District No. 560 3. Single family home stormwater retrofit program. (upcoming)</p>	<p>Ongoing monitoring conducted in a variety of ways by; City of Bellingham Public Works and Environmental Resources Departments, Whatcom County Public Works Department, Water District 10, WRIA 1 Team, DOE via the TMDL Study, other non-profits, home owners and residents within the watershed and the City and Whatcom County Councils.</p>
Marine Shorelines	.	.	

Restoration Plan

1. Treat stormwater entering Bellingham Bay from developed areas	Manage and treat stormwater to improve water quality.	Ongoing implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices	No ongoing monitoring identified
		Stormwater system improvements as street improvements are constructed	
2. Remove or replace creosote piles whenever possible to eliminate bioaccumulation of contaminants in marine ecosystem, including old ferry dock pilings and within boat marinas.	Remove intertidal fill, creosote contaminated logs, pilings and debris.	Some Creosote removal completed on beaches only. No other ongoing activity identified.	No ongoing monitoring identified
3. Restore eel grass beds where possible	Protect and/or restore native vegetation and native species.	Marine Park and Post Point Lagoon projects (Port and GP site?)	Long-term monitoring is associated with the specific project
4. Nourishment of pocket beaches	Protect and/or restore habitat forming processes.	No ongoing activity identified	No ongoing monitoring identified
5. Remove and reduce shoreline armoring along marine shoreline. Remove existing shoreline armoring as opportunities allow.	Remove intertidal fill & restore beach deposits and processes.	No ongoing activity identified	create GIS map of existing conditions

Restoration Plan

6. Remove/reduce impact of artificial night-lighting effects to intertidal habitat	Protect and restore wildlife corridors.	No ongoing activity identified	No ongoing monitoring identified
7. Provide fixed anchor buoys to avoid transient boat anchorage damage to eelgrass	Protect and/or restore native vegetation and native species.	No ongoing activity identified	No ongoing monitoring identified
8. Restore native marine riparian vegetation where possible	Protect and/or restore habitat forming processes AND protect / restore native vegetation and species.	Post point Lagoon restoration	aerial photographs and 2005 Post Point Lagoon assessment
9. Remove or restore derelict and unused in or over-water structures	Remove intertidal fill, creosote contaminated logs, pilings and debris.	No ongoing activity identified	No ongoing monitoring identified
10. Increase forage fish habitat in Bellingham Bay nearshore	Remove intertidal fill, creosote contaminated logs, pilings and debris.	No ongoing activity identified	No ongoing monitoring identified
11. Remove wood waste debris along shoreline at foot of Cliffside Drive.	Removal intertidal fill/restore beach deposits and processes.	Identified by PILOT team but has not yet been funded.	No ongoing monitoring identified
12. Protect and/or restore marine wetlands and salt marsh habitat	Protect and/or restore estuary habitat, wildlife corridors and habitat forming processes.	Post Point Lagoon restoration	annual monitoring of salt marsh area

Restoration Plan

13. Remove riprap along the Eastern shoreline of Padden Creek lagoon	Protect and/or restore estuary habitat, wildlife corridors and habitat forming processes.	No ongoing activity identified	No ongoing monitoring identified
14. Consider opening marina breakwaters to allow juvenile salmon passage along the shallow nearshore habitats of the boat basin areas and allow increased tidal flushing	Protect and/or restore freshwater, nearshore and estuarine habitat forming processes and removal of fish passage barriers.	No ongoing activity identified	No ongoing monitoring identified
15. Protection or acquisition of marine nearshore property	Protect and/or restore estuary habitat, wildlife corridors and habitat forming processes	No ongoing activity identified	No ongoing monitoring identified
16. Increase wildlife habitat and ecological function in the seven pocket estuaries and lagoons in Bellingham Bay	Protect and/or restore estuary habitat, wildlife corridors and habitat forming processes	Post point Lagoon and Whatcom Creek Estuary restoration (COB), Squalicum Cr estuary (POB currently planning).	.
17. Restore and increase estuary habitat in Squalicum Creek estuary	Protect and/or restore estuary habitat, wildlife corridors and habitat forming processes	Removal creosote pilings, plant native vegetation, increase salt marsh habitat. (DNR)	No ongoing monitoring identified
18. Soften BNRR shoreline riprap, gabions, and ecoblocks	Remove intertidal fill/restore beach deposits and processes, sand spits and accretion	Discussions with BN Railroad	No ongoing monitoring identified

Restoration Plan

	land forms		
19. Removal of invasive species	Protect and restore native species	Implemented on an as needed basis	No ongoing monitoring identified
20. Remediation of contaminated in-water sediments and subsequent habitat creation and restoration.	Create and restore habitat forming processes.	RI/FS released in October 2006. Final cleanup decision to be issued by DOE in 2007. Design - permit - implement 2008-?	Ongoing monitoring required by DOE
All Creeks			
Restoration Opportunity	Restoration Objective	Restoration Activity	Monitoring Activities
21. Provide incentives to encourage tree planting and retention along shorelines.	Protect /restore habitat and habitat forming processes and increase LWD availability and recruitment.	Washington Conservation Crew - managed by City's Environmental Resources Department is currently working on these types of restoration projects.	Regular maintenance is conducted until vegetation is established.
22. Encourage redevelopment to meet increased setbacks and restore site and shoreline vegetation.	Protect /restore habitat and habitat forming processes and increase LWD availability and recruitment.	No ongoing activity identified.	Aerial photographs.

Restoration Plan

23. Homeowner education and encourage bulkhead and bank hardening removal where possible.	Protect /restore habitat and habitat forming processes and removal of in-water structure.	No ongoing activity identified.	Aerial photographs.
24. Homeowner education on benefits of vegetation retention.	Protect /restore habitat and habitat forming processes and increase in LWD availability and recruitment.	Backyard Sanctuary program, promotion of LID.	No ongoing monitoring identified.
25. Replant shoreline with native vegetation.	Protect and restore native vegetation	No ongoing activity identified.	No ongoing monitoring identified.
26. Removal of invasive species	Protect and restore native species	No ongoing activity identified.	No ongoing monitoring identified.
27. Protect and restore riverine wetlands and hydrologic connectivity.	Protect /restore habitat and habitat forming processes.	Discussions with BN Railroad.	No ongoing monitoring identified.
28. Treat and detain stormwater entering into shoreline areas from developed areas.	Manage and treat stormwater and wastewater to improve water quality, decrease peak flows and increase use of LID.	Ongoing implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices.	No ongoing monitoring identified.
		Stormwater system improvements as street improvements are constructed.	

Restoration Plan

29. Remove/reduce impact of artificial night-lighting effects to aquatic habitat	Protect and/or restore aquatic habitat and wildlife corridors	No ongoing activity identified.	No ongoing monitoring identified.
Squalicum Creek			
Restoration Opportunity	Restoration Objective	Restoration Activity	Monitoring Activities
30. Minimize bank erosion and down-cutting in Squalicum Cr from Meridian St. to the mouth.	Increase LWD placement and recruitment opportunities, restore native riparian vegetation, decrease peak flow events, improve stormwater detention, and increase use of LID in development in Squalicum watershed.	Ongoing riparian restoration, implementation of 2005 stormwater manual and LID techniques; Lower Squalicum log jam project, Squalicum Spring Creek project, Bug Lake and Sunset Pond reroutes, preserve and increase side channel connectivity.	Ongoing vegetation monitoring and photo monitoring.
31. Minimize predation on salmonids by introduced warm water fish in Bug lake and Sunset Pond.	Protect and restore habitat corridors including aquatic corridors.	Create side channels around Bug Lake and Sunset Pond.	Monitor fish use. (Surveys and counts)
32. Improve upstream passage for returning salmon, especially in the upper reaches of Squalicum Creek.	Remove or improve existing fish passage barriers. Ensure all new stream crossings are fish passable	Culvert retrofit through Stormwater Utility.	2002 City wide Culvert Survey.

Restoration Plan

<p>33. Improve quantity and quality of rearing and spawning habitat.</p>	<p>Increase LWD placement and recruitment opportunities, restore native riparian vegetation, decrease peak flow events, improve stormwater detention, and increase use of LID in development in Squalicum watershed.</p>	<p>Ongoing riparian restoration, implementation of 2005 stormwater manual and LID techniques; Lower Squalicum log jam project, Squalicum Spring Creek project, Bug Lake and Sunset Pond reroutes, preserve and increase side channel connectivity, preserve and restore stream buffer width.</p>	<p>Ongoing vegetation monitoring and photo monitoring smolt traps and spawner surveys.</p>
<p>34. Work with homeowners from West St to Meridian St. to restore native riparian vegetation and increase salmon habitat.</p>	<p>Protect /restore habitat and habitat forming processes.</p>	<p>Centennial Clean Water Fund (CCWF) 2005 grant to work with homeowners.</p>	<p>Ongoing vegetation monitoring and photo monitoring.</p>
<p>35. Protect and improve natural hydrologic regimes throughout Squalicum Creek</p>	<p>Improve water quality, protect /restore habitat and habitat forming processes.</p>	<p>Ongoing riparian restoration, implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices.</p>	<p>Squalicum Creek discharge gauge @ West Street.</p>

Restoration Plan

36. Improve water quality, remove Squalicum Creek from 303(d) list	Improve water quality, Protect /restore habitat and habitat forming processes.	Ongoing riparian restoration, implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices.	Urban Streams Monitoring program, ongoing and conducted by Public Works facilities/plants. (Water treatment plants - Post Point and Whatcom Creek.)
Whatcom Creek			
Restoration Opportunity	Restoration Objective	Restoration Activity	Monitoring Activities
37. Decrease fecal coliform bacteria levels, decrease high temperature levels; remove Whatcom Creek from 303(d) list.	Improve water quality, Protect /restore habitat and habitat forming processes.	Ongoing riparian restoration, implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices, watershed education campaign.	Whatcom Creek Fecal Coliform and Temperature TMDL - ongoing - draft plans are presently under review by DOE.
38. Restore native shoreline vegetation between Electric Ave. and the Derby Pond within Whatcom Falls Park.	Improve water quality, Protect /restore habitat and habitat forming processes.		Whatcom Creek Fecal Coliform and Temperature TMDL, ongoing vegetation monitoring.
39. Preserve and restore Cemetery Creek wetland complex, especially hydrologic connectivity.	Improve water quality, Protect /restore habitat and habitat forming processes.	No ongoing activity identified.	No ongoing monitoring identified.

Restoration Plan

<p>40. Protect and improve natural hydrologic regimes throughout Whatcom Creek.</p>	<p>Improve water quality, Protect /restore habitat and habitat forming processes</p>	<p>Ongoing riparian restoration, implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices and the City of Bellingham Habitat Conservation Plan. (HCP)</p>	<p>Whatcom Creek discharge gauges @ Derby Pond and Dupont Street.</p>
<p>41. Decrease social trails and damage to bank vegetation in Whatcom Falls park especially near whirlpool and swimming areas.</p>	<p>Improve water quality, Protect /restore habitat and habitat forming processes, wildlife corridors.</p>	<p>No ongoing activity identified.</p>	<p>No ongoing monitoring identified.</p>
<p>42. Increase juvenile rearing and over-wintering habitat from Middle Falls to mouth.</p>		<p>Implement Cemetery Creek, Salmon Park and Red Tail reach restoration projects</p>	<p>vegetation monitoring, fish usage, photo points</p>
<p>43. Remove rock gabions and soften stream banks from I-5 to the mouth as redevelopment occurs</p>	<p>Protect /restore habitat and habitat forming processes.</p>	<p>No ongoing activity identified.</p>	<p>No ongoing monitoring identified.</p>
<p>44. Restore canopy cover to pre 1999 levels (Pre-Whatcom Creek Fire) from Middle Falls to I-5.</p>	<p>Improve water quality, Protect /restore habitat and habitat forming processes.</p>	<p>Ongoing riparian restoration.</p>	<p>Vegetation monitoring ongoing.</p>

Restoration Plan

45. Decrease water temperatures, remove Whatcom Creek from 303(d) list for the temperature parameter.	Improve water quality, Protect /restore habitat and habitat forming processes.	Ongoing riparian restoration, implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices, watershed education campaign.	Whatcom Creek Temperature TMDL.
46. Improve upstream passage for returning salmon.	Remove or improve existing fish passage barriers.	Culvert retrofit through City's Stormwater Utility.	2002 City wide Culvert Survey.
Chuckanut Creek			
Restoration Opportunity	Restoration Objective	Restoration Activity	Monitoring Activities
47. Protect and improve natural hydrologic regimes throughout Chuckanut Creek.	Improve water quality, Protect /restore habitat and habitat forming processes.	Ongoing riparian restoration, implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices.	Chuckanut Cr discharge gauge @ Arroyo Park.
48. Improve upstream passage for returning salmon especially into tributaries.	Remove or improve existing fish passage barriers. Ensure all new stream crossings are fish passable.	culvert retrofit through Stormwater Utility.	2002 City wide Culvert Survey.

Restoration Plan

50. Protect and restore native vegetation along Chuckanut creek.	Improve water quality, Protect /restore habitat and habitat forming processes.	Ongoing riparian restoration, implementation of the 2005 Stormwater Management Manual for Puget Sound and LID site development practices.	No ongoing monitoring identified.
--	--	---	-----------------------------------

Restoration Plan

6. Specific Restoration Projects

Table 3, next page, is a Restoration Planning matrix that was developed to show more specific restoration projects and opportunities within the City that have been identified from prior planning activities.

TABLE 3, BELOW, WOULD NOT BE APPROVED BY DOE AS A PART OF THE SMP. TABLE 3 INCLUDES SPECIFIC RECOMMENDATIONS FOR ACTIONS AND LOCATIONS THAT MAY CHANGE OVER TIME. THIS TABLE WILL BE ABLE TO BE ALTERED OR REVISED AS NECESSARY WITHOUT HAVING TO GO THROUGH AN AMENDMENT PROCESS AS SPECIFIED IN SECTION 22.07.20. OF THE SMP.

THIS WOULD ALLOW THE CITY TO INTEGRATE OTHER RESTORATION PROJECTS INTO THIS TABLE AS THEY ARE IDENTIFIED.

Restoration Plan

TABLE 3:

RESTORATION PLANNING			
<p>The portion of the table addressing restoration planning in Bellingham Bay has been modified to reflect the order of priority specified in Chapters 3 and 4 of the - Bellingham Bay Habitat Restoration Documentation Report issued in 1999.</p>	<p>Include background from HAB report including 7 goals; 1.1; 2.1; rest principles; APPENDIX D; Oct 2006 SUP-EIS</p>		
Project	Details		Project Status Funding Source Agency/group/person
Bellingham Bay			
<p>One of the fundamental elements of the Bellingham Bay Demonstration Pilot Project is habitat restoration. In 1996, a Habitat Subcommittee group team was created to implement this component. In 1999, the Habitat Subcommittee developed a Habitat Restoration Document Report that examined historic conditions in Bellingham Bay and identified potential habitat restoration and protection objectives and opportunities. These are listed below.</p>			
HIGH PRIORITY			
<p>1. Mt. Baker Plywood - Northwest. BBDP #3. Marine reach #4</p>	<p>A portion of the shoreline appears to be fill. The fill could be removed and the area graded to support marine buffer, possibly salt marsh and sand/mud flat.</p>		<p>Work will begin when funding is available</p>

Restoration Plan

<p>2. Mt. Baker Plywood - South. BBDP #4. Marine reach #3.</p>	<p>The fill could be removed and the site graded to provide habitat suitable for sand/mudflat and salt marsh habitat with a marine buffer fringe.</p>	<p>Work will begin when funding is available</p>
<p>3. Squalicum Creek Waterway - A. BBDP #5. Marine reach #3.</p>	<p>Removal of treated wooden piles, a pier, log rafting structures, and log rafts.</p>	<p>Work will begin when funding is available</p>
<p>4. Squalicum Creek Waterway - B. BBDP #6. Marine reach #3.</p>	<p>The elevations of the creek estuary could be raised to provide intertidal and shallow water habitat such as eelgrass, kelp or salt marsh and associated functions. Shoreline buffer could also be established.</p>	<p>Work will begin when funding is available</p>
<p>5. Bellingham Cold Storage. BBDP #7. Marine reach #3.</p>	<p>The fill could be removed and the site graded to provide estuary habitat suitable for marine buffer, salt marsh and/or intertidal mud/sand flat.</p>	<p>Work will begin when funding is available</p>
<p>6. Squalicum Harbor Breakwater</p>	<p>Elevations off portions of the breakwater could be raised from about -18 ft MLLW to provide gently sloping intertidal and shallow subtidal habitat and functions. Side slopes on the seaward edge of the breakwater could be modified to incorporate finer grained material to provide intertidal/shallow water functions.</p>	<p>Completed</p>

Restoration Plan

<p>7. Port-Hilton Harbor. BBDP #10. Marine reach # 5.</p>	<p>Shallow water habitat could be established by raising the elevation next to the Aerated Stabilization Basin (part of the Whatcom Waterway site). Marine buffer fringe habitat could be established at high elevations and/or site elevations could be modified to meet the elevations of the existing eelgrass bed. Allow for natural eelgrass colonization or do limited eelgrass transplanting.</p>	<p>Work will begin when funding is available</p>
<p>8. Georgia-Pacific Log Pond - East. BBDP #11. Marine reach 5.</p>	<p>Shallow water habitat could be established by raising the elevation next to the ASB. Marine buffer fringe habitat could be established at high elevations and the site could support either marsh plants or eelgrass at lower elevations.</p>	<p>Work will begin when funding is available</p>
<p>9. Georgia-Pacific ASB - South. BBDP #12. Marine reach # 5.</p>	<p>Elevations could be raised or modified to expand the existing eelgrass bed on the west side of the ASB. About 200, 000 cubic yards would be required to create habitat at elevations suitable for eelgrass.</p>	<p>Work will begin when funding is available</p>
<p>10. Sash and Door (Holly Street Landfill) BBDP #14. Whatcom Creek reach #1.</p>	<p>This action involved removing fill from the Sash and Door site and establishing estuarine riparian buffer, marsh, and mudflat banks.</p>	<p>Completed</p>

Restoration Plan

<p>11. Head of Whatcom Waterway. BBDP #17. Marine reach #5 & 6.</p>	<p>The concept would be to modify elevations and substrates in the head of the waterway to establish estuarine riparian buffer, mudflat benches, and marsh. Perhaps introduce rootwads or other structure to the head of the waterway.</p>	<p>Work will begin when funding is available</p>
<p>12. Georgia-Pacific Log Pond. BBDP #18. Marine reach #6.</p>	<p>In 2001, Georgia-Pacific completed construction of a combined sediment cleanup/habitat restoration action in their former log pond. The project converted subtidal mudflat/debris and low intertidal riprap into 2.7 acres of shallow subtidal and 2.9 acres of low clean silt and sand habitat.</p>	<p>Completed. In addition, funding has become available to seed pond area with eelgrass starts for additional habitat feeding and migration areas.</p>
<p>13. Cornwall Avenue Landfill. BBDP# 20. Marine reach #7.</p>	<p>Remove garbage from the in-water portion of the landfill. Cut back bank along shoreline and remove garbage. Re-grade upland to intercept an appropriate shallow water elevation. Establish intertidal habitat, marine buffer fringe, possibly a saltmarsh, and potentially expand the sparse eelgrass patches (0.25 acre) just offshore of the seaward extent of the garbage.</p>	<p>Work will begin when funding is available</p>

Restoration Plan

<p>14. Boulevard Park. BBDP #21. Marine reach #9.</p>	<p>Two actions could occur along the shoreline and offshore from about 600 to 800 ft north of Boulevard Park to the south end of the Park. The first action is shoreline substrate modification. Substrates consist of riprap and large rock and concrete debris. These substrates could possibly be removed and replaced with coarser grain sand and gravel to provide surf smelt and sand lance spawning areas. Alternatively, finer grained substrates could be placed in the interstices to provide some epibenthic habitat. The second action would occur offshore and consist of potentially restoring eelgrass or providing substrates to support kelp.</p>	<p>Work will begin when funding is available</p>
<p>15. Padden Creek - North Shoreline. BBDP #23. Marine reach #11.</p>	<p>Remove shoreline fill and create mudflat and/or saltmarsh</p>	<p>Work will begin when funding is available</p>
<p>16. Padden Creek - North - In-water. BBDP #24. Marine reach #11.</p>	<p>Remove treated wooden pier to remove creosote from the environment. This may provide an opportunity for existing eelgrass beds to expand. Remove a small filled area that protrudes waterward of the OHW line at the landward end of the pier structure.</p>	<p>Work will begin when funding is available</p>

Restoration Plan

<p>17. Padden Creek - Upland. BBDP #25. Padden Creek reach #1.</p>	<p>Remove fill and establish connection to Padden Creek. Excavate fill to create tidally influenced brackish marsh. Provide habitat buffer.</p>	<p>Work will begin when funding is available</p>
<p>18. Post Point - Upland. BBDP #26. Marine reach #13.</p>	<p>Excavate upland next to small open water embayment containing eelgrass. Grade excavated area to provide saltmarsh and mudflat bench.</p>	<p>Vegetation has been installed. Excavation and large woody debris placement is currently being proposed for permits.</p>
<p>19. Padden Creek - East Shore. BBDP #36. Marine reach #12.</p>	<p>Remove fill, asphalt and rock along the east shore and modify elevations to provide estuarine riparian buffer, mudflat benches and marsh.</p>	<p>Work will begin when funding is available</p>
<p>MEDIUM PRIORITY</p>		
<p>20. Cement Company Dock. BBDP #1. Marine reach #2.</p>	<p>This dock is a relatively wooden structure near Little Squaticum Creek that extends through intertidal and shallow subtidal water. The primary action would be removal of the treated wooden piles to remove creosote from the aquatic environment and restore substrates.</p>	<p>Work will begin when funding is available</p>

Restoration Plan

<p>21. Mt. Baker Plywood - West. BBDP habitat opportunity #2.</p>	<p>The beach area west of Mt. Baker Plywood consists of large boulders and rocks. Opportunities at this site include either removing the large boulders and rocks to expose underlying sediments and supplement with finer mixed coarse gravel and sand, or placing finer mixed coarse gravel and sand over the large boulders and rocks to fill interstices.</p>	<p>Work will begin when funding is available</p>
<p>22. Squalicum Marina. BBDP #9. Marine reach #4.</p>	<p>The substrate along the marina margins modified to incorporate finer grained rocks to provide intertidal/shallow water functions.</p>	<p>Work will begin when funding is available</p>
<p>23. G – P ASB</p>	<p>Removal of contaminated sediments / materials from the historic wastewater treatment facility. Replace contaminated materials with clean sediments and materials in order to create a variety of new in-water habitat features (including upland public access amenities and a new marina / boat basin.</p>	<p>A Draft RI/FS was released for public comment in October, 2006 that included eight cleanup alternatives. A formal decision on the preferred alternative (#6) has not yet been issued by DOE.</p>
<p>24. Citizens Dock. BBDP #15. Marine reach #6.</p>	<p>This dilapidated dock was removed in 1999</p>	<p>Completed</p>
<p>25. Lower Whatcom Creek. BBDP #16. Marine reach #5.</p>	<p>The action would involve removing wooden structures, derelict floats, etc. in the vicinity.</p>	<p>Work will begin when funding is available</p>
<p>26. Port Log Rafting Area. BBDP #19. Marine reach # 6 & 7.</p>	<p>Remove wood/bark debris, and sunken logs. Modify the shoreline edge and modify elevations to support intertidal and shallow subtidal habitat (sloped or terraced bench). The site may provide an opportunity to provide substrates suitable for macroalgae attachment establish and/or an eelgrass bed</p>	<p>Work will begin when funding is available</p>

Restoration Plan

<p>27. Taylor Street Dock. BBDP #22. Marine Reach #9.</p>	<p>Removed the treated wooden structure and associated pilings and pier structures to remove creosote from the aquatic environment. Either allow eelgrass to naturally recolonize or conduct eelgrass transplant.</p>	<p>Completed. Post construction sampling has been conducted and shows no additional impacts from construction of the dock. Eelgrass has successfully established within the project area.</p>
<p>28. Post Point - Shoreline. BBDP #27. Marine reach #11.</p>	<p>Modify existing structure under railroad crossing to open it up and replace existing concrete debris that has been used to armor the shoreline with rock.</p>	<p>Work will begin when funding is available</p>
<p>29. Post Point - South. BBDP #28. Marine reach #14-16.</p>	<p>Modify existing structure under railroad crossing to open it up.</p>	<p>Work will begin when funding is available</p>
<p>30. Chuckanut Spit. BBDP #29. Marine reach 17.</p>	<p>There is apparently a closed culvert under the rail trestle. The action would involve either opening the culvert or replacing the culvert with a new culvert that was bigger and more open.</p>	<p>Work will begin when funding is available</p>
<p>31. Chuckanut Breach. BBDP #30. Marine reach #19.</p>	<p>There is one rail trestle allowing exchange between Bellingham Bay and the embayment in the north end of Chuckanut Bay. The action would consist of either installing a large open culvert under the rail line or building another trestle along the eastern end of the rail bed.</p>	<p>Work will begin when funding is available</p>

Restoration Plan

<p>32. Lummi Peninsula. BBDP #33.</p>	<p>Portions of the shoreline along this area are armored with rip rap and large boulders. The action that could be implemented here would consist of restoring upper intertidal substrates to coarse sand and gravel suitable to support surf smelt and sand lance spawning habitat.</p>	<p>Work will begin when funding is available</p>
<p>33. Nooksack Delta - East. BBDP #35.</p>	<p>Decaying wood deposits have apparently blanketed much of the higher intertidal area. The action would be to remove the wood deposits and if necessary import appropriately sized gravel to support surf smelt and sand lance spawning habitat.</p>	<p>Work will begin when funding is available</p>
<p>LOW PRIORITY</p>		
<p>34. Post Point to Chuckanut Protection. BBDP #31. Marine reach #14-18.</p>	<p>Set this area aside as a preservation area because habitats within the area re difficult to replace, the area provides multiple functions (as documented through maps showing use of the area by multiple resources), and it is thought to represent a unique habitat in Bellingham Bay.</p>	<p>Work will begin when funding is available</p>

Restoration Plan

35. Portage Island Protection Area. BBDP #32.	Set this area aside as a preservation area because habitats within the area re difficult to replace, the area provides multiple functions (as documented through maps showing use of the area by multiple resources), and it is thought to represent a unique habitat in Bellingham Bay.	Work will begin when funding is available	
36. Nooksack Delta Protection Area. BBDP #34.	Set this area aside as a preservation area because habitats within the area re difficult to replace, the area provides multiple functions (as documented through maps showing use of the area by multiple resources), and it is thought to represent a unique habitat in Bellingham Bay.	Work will begin when funding is available	
37. Bellingham Bay rogue creosote log removal. WATERFRONT FUTURES GROUP HABITAT AND RESTORATION OPPORTUNITIES FOR BELLINGHAM BAY	Remove from nearshore and upland areas rogue logs that wash into shore that are treated with creosote. MULTIPLE PROJECTS BAYWIDE THAT COINCIDES WITH THE WFG FRAMEWORK PLAN	C.O.B., D.O.E and W.C.C REPS FROM AGENCIES	Completed but ongoing.
Squalicum Creek			
38. Segment from West Street to Meridian Street. (two segments: Roeder to West AND West to Meridian Street. Squal. reaches 1-3.	Stream restoration on lower nine acres of Squalicum (From West St. to Meridian Street) – removal of ivy, clematis, knotweed and other noxious weeds and replacement with native vegetation at a minimum. Purpose is to improve salmon habitat on 15 private properties along Squalicum Creek.	COB	Project funded by FY 2005 Centennial Clean Water Grant. COB / NSEA joint effort and fully completed by December of 2010.

Restoration Plan

<p>39. Pacific Concrete. New spring channel. Squalicum reach #2.</p>	<p>The City recently acquired 35 acres adjacent to Squalicum Creek. The purchase included a water right for a natural ground water fed spring. The spring is currently piped underground towards Squalicum Creek. The spring will be daylit and a site plan including proposed locations of woody debris structures and meander bends will be designed and constructed. This will create 1/3 mile of new salmon habitat. The project will also improve degraded riparian function by replacing invasive plant species with native vegetation on over two acres of riparian area along both stream banks. Woody debris structures will be placed to direct flow, create salmon habitat, provide bank protection and regulate channel migration activity.</p>	<p>City of Bellingham: Environmental Resources</p>	<p>Project funded by FY 2005 Centennial Clean Water Grant. Project will be completed by City of Bellingham, Environmental Resources Division and fully completed by December of 2010.</p>
<p>40. Squalicum Parkway culvert & fish passage improvements. Reaches 2 and 3.</p>	<p>4 total most downstream ones.</p>		<p>Current and to be completed by COB in 2005.</p>
<p>41. Baker Creek culvert and fish passage improvements. Not in SMA jurisdiction.</p>	<p>restoration of riparian/floodplain area between Shurgard Storage and mobile home park. Objective is to install native vegetation, stabilize banks - soft techniques and provide refuge for salmonids via LWD and back channels.</p>		<p>Current and to be completed by COB in 2005.</p>

Restoration Plan

42. Birchwood Avenue culvert and fish passage improvements. Squal reach boundary between 5 and 6.	bug lake outlet		Current and to be completed by COB in 2005.
43. Lower Squalicum bank stabilization. Squalicum reach #2.	Crib walls and LWD installed to prevent further erosion and bank cutting of properties with steep slopes, banks.		Current and to be completed by COB in 2005.
44. Bug Lake. Squal reach #6.	City recently purchased the lake for future habitat improvement.	City of Bellingham: Environmental Resources	Work will begin when funding is available.
45. James Street Segment. Squal reach #6.	Maintenance and repair of an existing culvert to extend the service life of the structure and prevent damage to adjacent roadways.	City of Bellingham: Public Works	Completed Summer of 2004.
Whatcom Creek			
46. Horton Towing Segment. Whatcom Creek reach #4.	Increase riparian area by rolling back fence - graveled parking area - removal of noxious and install new native mix of conifers, under story and shrubs.	potential for WCC or via private devel.	Work will begin as funding is available or project proposal warrants.

Restoration Plan

<p>47. Red Tail Reach/Bay City Supply. Whatcom Creek reach #4.</p>	<p>The City is in the process of acquiring .73 acres on land on the north side of Whatcom Creek directly across the creek from a large City-owned property on the south side of the creek. Project includes meander bends, side channels, woody debris installations throughout the reach, and replacement of invasive plant species with native vegetation. This reach provides the best spawning habitat in Whatcom Creek for Chinook, Coho, pinks and steelhead despite the degraded channel conditions (straightened with no complexity) and lack of significant native vegetation or canopy cover. The woody debris structures will be placed to redirect flow, improve habitat conditions, provide bank protection and regulate channel migration activity, improving the degraded riparian function of the area.</p>	<p>City of Bellingham: Environmental Resources</p>	<p>Project funded by FY 2005 Centennial Clean Water Grant. Project will be completed by City of Bellingham, Environmental resources Division and fully completed by December of 2010.</p>
---	---	--	---

Restoration Plan

<p>48. Detailed Implementation Plan (DIP), Bacteria and Temperature TMDL. Whatcom Creek drainage analysis: ECO FUNCT: water quality.</p>	<p>Creek exceeds TMDL standards for temperature and bacteria. The DIP will take major steps at removing Whatcom Creek from the 303(d) list. Using a combination of source monitoring and land use analysis fecal conform sources will be identified. Information generated from these activities will guide the development of source controls and BMPs used to reduce or eliminate fecal coliform loading in the Whatcom Creek watershed. Temperature problems will be handled by the Dept. of Ecology.</p>	<p>City of Bellingham: Environmental Resources</p>	<p>Status: Project funded by FY 2005 Centennial Clean Water Grant. Project will be completed by City of Bellingham, Environmental resources Division and fully completed by December of 2010.</p>
<p>49. Salmon Park. Whatcom Creek reach #4 and 5.</p>	<p>Extensive habitat enhancement project that increases wetland areas hydro connected to Cemetery Creek, installs LWD for back channeling and refuge. (Salmon and habitat improvement project)</p>	<p>City of Bellingham</p>	<p>Scheduled to begin in 2005.</p>
<p>50. Cemetery Creek. Whatcom Creek reach #5.</p>	<p>Extensive habitat enhancement project that increases wetland areas hydro connected to Cemetery Creek, installs LWD for back channeling and refuge. (Salmon and habitat improvement project)</p>	<p>City of Bellingham</p>	<p>Scheduled to begin in 2006.</p>
<p>51. Mouth to Cornwall. Reaches #1 and 2.</p>	<p>Invasive species removal and new native vegetation installation.</p>	<p>City of Bellingham, WCC</p>	<p>ongoing since 2001.</p>
<p>52. State Street to Meador. Reach #3.</p>	<p>Invasive species removal and new native vegetation installation.</p>	<p>City of Bellingham, WCC</p>	<p>2003 - present</p>

Restoration Plan

53. Interstate 5 to middle falls - Whatcom Falls Park. Reaches 4-7.	Invasive species removal and new native vegetation installation.	City of Bellingham, WCC	ongoing since 2001.
Chuckanut Creek			
54. Chuckanut Creek - reach #1.	Periodic maintenance dredging for flow capacities.		Ongoing.
Lake Whatcom			
<p>The following, ongoing projects and plans help to protect the lake as a drinking water and recreation source for City residents as well as preserve the natural environment of watershed:</p>			
<p>In 2005, the City and County Councils and the Lake Whatcom Water & Sewer Dist. Commissioners (known as the Joint Councils and Commissioners) approved the "2005-2009 Lake Whatcom Work Plan". This represents the second five-year work plan developed for the management of Lake Whatcom as a drinking water reservoir. Both plans were developed from a list of goals and policies adopted by the Joint Councils and Commissioners in a 1992 Joint Resolution. In addition, the plans are based on priorities established by the Joint Councils and Commissioners in 2004.</p> <p>The work plans are written by the Lake Whatcom Interjurisdictional Committee Team (ICT) which is comprised of staff from the three jurisdictions. The ICT writes the plans, implements the plan tasks, and reports on task progress to the Joint Councils and Commissioners biannually. The ICT also responds to the respective jurisdictions as new issues and priorities arise.</p> <p>The "2005-2009 Lake Whatcom Work Plan: Priority Tasks for 2006" can be found on the Lake Whatcom website at: http://www.lakewhatcom.wsu.edu/.</p>			
<p>The "WRIA 1 Watershed Management Program brings together citizens, local governments, tribes, and state and federal agencies to develop plans for allocating water, protecting water quality, and restoring fish habitat." Water Resource Inventory Area No. 1 (WRIA 1) includes Lake Whatcom, encompassing "the surface and ground water in the Nooksack River basin and certain adjacent watersheds."</p>			
<p>Continuous temperature monitoring (Total Maximum Daily Load Monitoring (TMDL)), under the Clean Water Act determines the source of pollution in the watershed and tries to reduce pollutants. The study will be completed in January 2005. Once the study is completed, there will be a deliberation with the city to determine the best strategies to reduce the pollution allocation.</p>			

Restoration Plan

Stormwater Pollution effects the water quality of the lake. A Seasonal Land Disturbance Restriction is in affect as well as a Priority Inspection area that monitors areas three to four times a month.

Beginning in 1981, a monitoring program was initiated by the city and the Institute for Watershed Studies at Western Washington University that was designed to perform long-term water quality data for the lake. Annual reports have been issued since 1990. In addition to long-term water quality data, the program also evaluates annually, the effectiveness of storm water treatment in the lake's watershed, and to monitor the hydrology of the lake.

The Silver Beach Ordinance was passed in 2001, reducing development impacts by prohibiting certain non-compatible land uses, limiting impervious area, placing seasonal limits on earthwork, minimizing the use of harmful materials and other best management practices.

The city performs Recreational Beach Monitoring at Bloedel-Donovan Park to check bacteria levels and DNA source tracking. Results from 2002 show that some prominent sources of E-coli bacteria in the lake come from geese.

Owning land is one of the best ways at controlling land use and development. The City of Bellingham's Lake Whatcom Watershed Property Acquisition Program, financed by water-usage fees, aims at preserving and improving our drinking water quality by purchasing land within the+A56 Lake Whatcom Watershed. The City actively seeks properties within the watershed, particularly ones that adjoin lands already owned by the City. Or property owners and realtors familiar with the program bring information to the City regarding potential properties.

As part of a larger package of tools and techniques to help protect the Lake Whatcom Watershed, the Whatcom County Council adopted in December of 1999 amendments to the county zoning ordinance and maps to enable a Transferable Development Rights (TDR) program. This program allows a landowner to transfer their residential development rights to another owner or to another piece of property, outside of the Lake Whatcom Watershed. The effectiveness of the current program guidelines is being reviewed and will be modified.

Identified restoration projects within the "OPPORTUNITIES AND IDEAS FOR HABITAT RESTORATION AND WATER ACCESS ON URBAN BELLINGHAM BAY" (including APPENDIX A and B) from the Interagency Workshop held on January 22, 2004, prepared for the Waterfront Futures Project, by Anchor Environmental, LLC, February 20, 2004.