

ORDINANCE NO. 711

AN ORDINANCE of the City Council of the City of Lakewood, Washington: adopting the periodic review amendments to the 2014 Shoreline Master Program and adopting the 2019 Shoreline Restoration Plan and directing the Planning Commission to hold an annual Restoration Plan activities review.

WHEREAS, the City of Lakewood incorporated effective February 28, 1996; and,

WHEREAS, the City of Lakewood is a non-charter optional municipal code city as provided in Title 35A RCW, incorporated under the laws of the State of Washington, and planning pursuant to the Growth Management Act (GMA), Chapter 36.70A RCW; and

WHEREAS, the Washington Shoreline Management Act (RCW 90.58, referred to herein as "SMA") recognizes that shorelines are among the most valuable and fragile resources of the state, and that state and local government must establish a coordinated planning program to address the types and effects of development occurring along shorelines of state-wide significance; and

WHEREAS, the City is required to develop a Shoreline Master Program ("SMP") pursuant to the SMA and WAC 173-26; and,

WHEREAS, on August 14, 2014, the City adopted Ordinance No. 590 adopting an SMP; and

WHEREAS, in 2018 the City entered into Grant Agreement #SEASMP-1719-LakPWD-00060 with the Department of Ecology (ECY) to conduct an SMP periodic review; and

WHEREAS, on February 1, 2019, a Determination of Non-Significance was issued consistent with the State Environmental Policy Act (SEPA) (RCW 43.21C), and a Notice of Issuance (#201900536) was published in the SEPA Register; and

WHEREAS, on March 20, 2019, following proper public notice, a public hearing, and extensive public participation including two open houses and a City meeting with representatives from the Chambers Clover Creek Watershed Council and Tahoma Audubon Society, the Planning Commission adopted Resolution 2019-02 recommending approval of periodic review amendments to the 2014 Lakewood SMP, adoption of the 2019 Shoreline Restoration Plan (Restoration Plan), and establishing an annual Restoration Plan activities review; and

WHEREAS, on April 1, 2019, the Community and Economic Development Department published a Notice of City Council Public Hearing in *The News Tribune*; and

WHEREAS, Notice of Public hearing was also published on the City's website and in the City Manager's Bulletin; and

WHEREAS, on April 15, 2019, the Lakewood City Council held a public hearing on the adoption of proposed periodic review amendments to the SMP, adoption of the Restoration Plan, and establishment of an annual process to review restoration activities in the City by the Planning Commission; and

WHEREAS, throughout the review by the Planning Commission and City Council in 2018 and 2019, the City has communicated regularly with ECY and incorporated amendments to the draft SMP and Restoration Plan based on ECY recommendations;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF LAKEWOOD, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Shoreline Master Program periodic review amendments adopted. The City Council hereby adopts the 2019 periodic review amendments to the City of Lakewood Shoreline Master Program ("SMP"), which incorporates the required and recommended changes noted by ECY, a copy of which is attached to this ordinance as Exhibit A and incorporated herein by this reference. A copy of said SMP shall be on file in the office of the City Clerk for public use and

copies of this ordinance, together with copies of the SMP, shall be distributed and filed as required by law. In the event of a conflict between the SMP and any provision of Title 14 of the Lakewood Municipal Code, the SMP shall control.

Section 2. Shoreline Restoration Plan adopted. The City Council hereby adopts the 2019 City of Lakewood Shoreline Restoration Plan (“Restoration Plan”) dated April 22, 2019, which incorporates the required and recommended changes noted by the ECY, a copy of which is attached to this ordinance as Exhibit B and incorporated herein by this reference. A copy of said Restoration Plan shall be on file in the office of the City Clerk for public use and copies of this ordinance, together with copies of the Restoration Plan, shall be distributed and filed as required by law. In the event of a conflict between the Restoration Plan and any provision of the SMP or Title 14 of the Lakewood Municipal Code, the SMP shall control.

Section 3. Annual review of Restoration Plan activities established. The City Council hereby establishes a process for the Planning Commission to hold a meeting annually at which reports will be provided by organizations and individuals who have conducted shoreline restoration activities within the City, and the Commission will determine whether to recommend amendments to the Restoration Plan for Council consideration.

Section 4. Severability. If any sections, sentence, clause or phrase of this Ordinance shall be held to be invalid or unconstitutional by a court of competent jurisdiction, or its application held inapplicable to any person, property or circumstance, such invalidity or unconstitutionality or inapplicability shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this Ordinance or its application to any other person, property or circumstance.

Section 5. Effective Date. This ordinance shall take effect fourteen days following the date of a letter to the City of Lakewood from the Washington State Department of Ecology approving the SMP and Restoration Plan adopted by this ordinance.

PASSED by the City Council this 6th day of May, 2019.

CITY OF LAKEWOOD



Don Anderson, Mayor

Attest:



Briana Schumacher, City Clerk

Approved as to Form:



Heidi Ann Wachter, City Attorney

City of Lakewood

Shoreline Master Program *Environment Designations, Policies, and Regulations*



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SMP Periodic Review: Lakewood City Council approval May 6, 2019; pending ECY approval



This document was funded in part through a grant from the Washington Department of Ecology: 2009 Grant No. G1000045; 2018 Grant No. SEASMP-1719-LakPWD-00060.



Acknowledgments:

City of Lakewood Citizens

City of Lakewood Planning Commission

City of Lakewood City Council

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Chapter 1 Introduction

A. History and Requirements of the Shoreline Management Act

Washington’s Shoreline Management Act (SMA or the Act) was adopted in 1971 by referendum to prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines. RCW 90.58.020 outlines the Act’s three broad policies:

1. **Encourage water-dependent uses**, preferably those “consistent with control of pollution and prevention of damage to the natural environment, or unique to or dependent upon use of the state’s shorelines”;
2. **Protect shoreline natural resources**, including "the land and its vegetation and wildlife, and the waters of the state and their aquatic life”; and
3. **Promote public access**: “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.”

This Act recognizes that shorelines are among the most valuable and fragile of the state's resources. The Act and the City of Lakewood recognize and protect private property rights along the shoreline, while aiming to preserve the quality of this unique resource for all state residents.

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

1. Developing an inventory of the natural characteristics and land use patterns along shorelines covered by the act.
2. Preparing a Shoreline Master Program (SMP) to determine the future of the shorelines.
3. Preparing a cumulative impact analysis to demonstrate that reasonably foreseeable development under the SMP will not result in a net loss of ecological function.
4. Developing a permit system to further the goals and policies of both the Act and the SMP.
5. Developing a Restoration Plan that includes goals, policies, and actions to restore impaired shoreline ecological functions.

B. Shoreline Master Program Development and Public Participation

The City obtained a grant from the Washington Department of Ecology (Ecology) in 2009 to conduct a comprehensive SMP update. The first step of the update process was to inventory the City's shorelines as defined by the Act, Chapter 90.58 RCW. American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek comprise the City's SMA shorelines. The inventory describes existing biological and physical conditions. These conditions were then analyzed and characterized to create a baseline from which future development actions in the shoreline will be measured.

The City identified environmental designations for the different shorelines, and policies and regulations for each were developed.

Ecology's SMP Guidelines (See Chapter 173-26-186(8) WAC) require the City to demonstrate that its updated SMP yields "no net loss" in shoreline ecological functions relative to the baseline due to its implementation. Ideally, the SMP, in combination with other City and regional efforts, will ultimately produce a net improvement in shoreline ecological functions.

C. Purposes of the Shoreline Master Program

The purposes of this SMP are:

1. To carry out the responsibilities imposed on the City by the SMA.
2. To comply with the SMP Guidelines (See WAC 173-26-186), focusing on regulations and mitigation standards to ensure that development under the SMP will not result in a net loss of ecological functions.
3. To further both the policies of Chapter 90.58 RCW and the policies of this SMP.
4. To promote public health, safety, and general welfare by providing a guide and regulation for the future development of the shoreline resources of the City.

D. Shoreline Master Program Basics

The City's SMP is both a planning and regulatory document that outlines policies and development regulations for the City's shorelines.

In order to preserve and enhance the City's shorelines, it is important to consult the City Shoreline Administrator and evaluate all shoreline development proposals in terms of the City's SMP. Some developments may be exempt from obtaining a permit; however, all proposals must comply with the policies and regulations established by the SMA as expressed through this local SMP.

While the SMA defines the content and goals that local jurisdictions should include in the SMP, each community must develop specific regulations to address their individual needs. Under the SMP Guidelines, all shorelines governed by the SMA receive a shoreline environment designation. The purpose of the shoreline environment designation system is to ensure that all land use, development, or other activity occurring within the designated shoreline jurisdiction is appropriate for that area and provides consideration for the special requirements of that environment.

The City has designated its shorelines on American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek under six shoreline environment designations: Aquatic, Natural, Conservancy, Urban Park, Urban - Stream Protection and Shoreline Residential. These shoreline environment designations are described in Chapter 2, Shoreline Environments.

American Lake has shorelines of statewide significance per RCW 90.58. Local government, in developing master programs for shorelines of statewide significance, shall give preference to uses in the following order of preference which:

- (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.

Persons proposing any shoreline development, land use, or other projects in the shoreline area must consult with the City's Shoreline Administrator (the City's Community Development Director or designee) to determine how the proposal is addressed in the SMP. Except when specifically exempted by statute, all proposed uses and development occurring within shoreline jurisdiction must conform to Chapter 90.58 RCW, the Shoreline Management Act, and this Master Program.

The Shoreline Administrator will determine if a proposal is exempt from having to obtain a substantial development permit (i.e. qualifies for a Shoreline Exemption), as well as provide information on the permit application process.

Requests for variances, conditional use permits (CUPs), and/or substantial development permits require review and approval by the Shoreline Administrator and/or recommendation by the Shoreline Administrator to the Hearing Examiner, in accordance with Chapter 6 of this SMP. Requests for CUPs and variances also require final approval by Ecology. A description of exempt projects, shoreline application procedures, and criteria are discussed in Chapter 6, Administration.

A description of the area within the jurisdiction of this SMP is presented in Chapter 2: Shoreline Environments. Figure 1 depicts the general extent of shoreline jurisdiction in the City.

E. Organization of this Shoreline Master Program

This SMP is divided into seven chapters:

Chapter 1: Introduction provides general background information on the SMA; the development of the SMP in the City; and a general discussion of when and how a SMP is used.

Chapter 2: Shoreline Environments defines and maps the approximate extent of City's shoreline jurisdiction and defines and maps the environment designations of the City's shorelines. Policies and regulations specific to the six (6) shoreline environment designations are detailed in this chapter.

Chapter 3: General Policies and Regulations establishes the general policies and regulations that apply to uses, developments, and activities in *all* shoreline areas of the City, regardless of environment designation.

Chapter 4: Specific Shoreline Use Policies and Regulations sets forth policies and regulations governing specific categories of uses and activities typically found in shoreline areas. Specific setback regulations, reduction incentives, and dimensional and density standards are detailed in this chapter. The policies and regulations cover the following uses and activities: Aquaculture; Boating Facilities; Commercial Development; Parking (as a primary use); Recreational Facilities; Residential Development; Signs; Trails; Transportation Facilities; Utilities (Primary and Accessory); and other uses and activities.

Chapter 5: Shoreline Modification Activity Regulations provides policies and regulations for those activities that modify the physical configuration or qualities of the shoreline area.

Chapter 6: Administration provides the system by which the City's SMP will be administered, and provides specific information on the application process and criteria used in evaluating requests for shoreline substantial development permits, CUPs, and variances.

Chapter 7: Definitions defines terms found in this document.

F. Relationship between this Shoreline Master Program and Other Plans

The permitting process for a shoreline development or use does not exempt an applicant from complying with any other applicable local, state, regional, or federal laws or regulations. In the City, this includes, but is not limited to, the Land Use and Development Code (Lakewood Municipal Code (LMC) Title 18A), the Performance Code for Building and Facilities (LMC Title 15A), the City of Lakewood Comprehensive Plan, and the adopted surface water design manuals.

G. Title

This document shall be known and may be cited as the City of Lakewood Shoreline Master Program. This document may refer to itself as "The Master Program" or "SMP."

Chapter 2 Shoreline Environments

A. Introduction to Shoreline Environment Designations

The SMA and the SMP Guidelines provide for shoreline environment designations to serve as a tool for applying and tailoring the general policies of the SMA to local shorelines. Shoreline environment designations are intended to preserve and enhance shoreline ecological functions and to encourage development that will enhance the present or desired future character of the shoreline. To accomplish this, shoreline segments are given an environment designation based on existing development patterns, biological capabilities, and limitations, the aspirations of the local citizenry and the criteria in the SMP Guidelines.

Environment designations are categories that reflect the type of development that has or that should take place in a given area. The SMP Guidelines recommend classifying shoreline environments using the categories described in WAC 173-26-211(5). Additionally, local governments may establish an alternative shoreline environment designation, provided there is consistency with the purposes and policies of the SMA and the SMP Guidelines, including WAC 173-26-211(5).

Once a shoreline segment has been given an environment designation, management policies are developed. These management policies are used as the basis for determining uses and activities that can be permitted in each environment designation. Specific development standards are also established, which specify how and where permitted development can take place within each shoreline environment designation.

B. Need for Consistency

Local governments are tasked with evaluating consistency between the SMP, the Comprehensive Plan, and land use regulations under WAC 173-26-211(3). The SMA requires that policies for lands adjacent to the shorelines be consistent with the Act, implementing rules and the local SMP. Conversely, local comprehensive plans provide the underlying framework within which SMP provisions should fit. The Growth Management Act (GMA) requires that SMP policies be incorporated as an element of the comprehensive plan, and that all elements be internally consistent. In addition, under the GMA, all development regulations must be consistent with the comprehensive plan.

The SMP Guidelines identify three criteria to assist local governments in evaluating the consistency between SMP environment designation provisions and the corresponding comprehensive plan elements and development regulations, including:

1. **Provisions not precluding one another.** Comprehensive plan provisions and shoreline environment designation provisions should not preclude one another. To meet this criterion, the provisions of both the comprehensive plan and the SMP must be able to be met. Further, when considered together and applied to any one piece of property, the SMP use policies and regulations and the local zoning or other use regulations should not conflict in a manner that all viable uses of the property are precluded.

2. **Use compatibility.** Land use policies and regulations should protect preferred shoreline uses from being impacted by incompatible uses. The intent is to prevent existing or potential future water oriented uses, especially water dependent uses, from being restricted on shoreline areas because of impacts to nearby non-water-oriented uses. To be consistent, SMPs, comprehensive plans, and development regulations should prevent new uses that are not compatible with preferred uses from locating where they may restrict preferred uses or development.
3. **Sufficient infrastructure.** Infrastructure and services provided in the comprehensive plan should be sufficient to support allowed shoreline uses. Shoreline uses should not be allowed where the comprehensive plan does not provide sufficient roads, utilities, and other services to support them. Infrastructure plans must also be mutually consistent with shoreline environment designations. Where they do exist, utility services routed through shoreline areas shall not be a sole justification for more intense development.

C. City of Lakewood Shoreline Jurisdiction

As defined by the SMA, lands subject to shoreline jurisdiction include “waters of the state” plus their associated “shorelands.” At a minimum, waters of the state are streams whose mean annual flow is 20 cubic feet per second (c.f.s.) or greater, and lakes whose area is greater than 20 acres. In RCW 90.58.030, Shorelands are defined as:

“Those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark (OHWM); floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter.”

Within the City, shoreline jurisdiction includes American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, and Waughop Lake and their shorelands, as well as Chambers Creek and Clover Creek and their shorelands. Figure 1 depicts the general location of shoreline jurisdiction in the City and is illustrative in nature. The actual definition of shoreline jurisdiction as detailed in the SMA will determine the actual extent of shoreline jurisdiction on a project-by-project or parcel-by-parcel level. In the event of a mapping error, the City will rely upon common boundary descriptions and the criteria in RCW 90.58.030(2) and Chapter 173-22 WAC to determine shorelands and the extent of each environment designation.

When interpreting the exact location of an environment designation boundary line, the location shown on the Official Shorelines Map shall prevail, consistent with the following rules:

1. Boundaries indicated as approximately following parcel, trac or section lines shall be so construed.
2. In cases of boundary line adjustments or subdivisions, the designation of the parent parcel shall not change as a result, except if pursuant to an amendment of this Shoreline Master Program (SMP).
3. Boundaries indicated as approximately following roads shall be construed to follow the nearest right-of-way edge.
4. Boundaries indicated as approximately parallel to or extensions of features indicated in XXX section of this SMP shall be so construed.

D. City of Lakewood Shoreline Environment Designations

This SMP establishes six shoreline environment designations for the City of Lakewood’s shoreline jurisdiction. These environments are derived from the City’s Shoreline Analysis Report, the City of Lakewood Comprehensive Plan, and the environments recommended by the SMA and the SMP Guidelines. The City’s Shoreline Analysis Report provides an inventory of natural and built conditions within the City’s shoreline jurisdiction. The conditions identified in the inventory have been compared with the recommended shoreline environments and the most appropriate environments selected. The six (6) City shoreline environment designations in order of most intensive to least intensive are:

1. Shoreline Residential,
2. Urban - Stream Protection,
3. Urban Park,
4. Conservancy,
5. Natural, and
6. Aquatic.

These shoreline environment designations for the City are illustrated in Figure 1 (Shoreline Management Environment Designations), located at page ____, and described in the text below. Each shoreline description includes a definition and statement of purpose, followed by designation criteria, management policies, and references to development standards that are specific to that shoreline environment. Shoreline development standards in each shoreline environment are summarized in Table II in Chapter 4. Development standards pertaining to all shoreline areas are covered in Chapter 3 and development standards for particular uses are detailed in Chapter 4.

Please see Figure 1 for the Shoreline Environment Designations Map.

E. Shoreline Areas Not Mapped or Designated

Any undesignated or unmapped shorelines in the City and its Urban Growth Area are assigned automatically a Conservancy shoreline environment designation until the shoreline is re-designated through an amendment to the SMP. This includes any areas that are annexed into the City and fall within the City’s shoreline jurisdiction, such as Camp Murray.

F. Management Policies and Regulations

1. Shoreline Residential Environment

a) Purpose

The Shoreline Residential environment designation is designed to provide for residential uses and structures where the necessary facilities for development can be provided. An additional purpose is to provide appropriate public access and recreational uses.

b) Designation Criteria

The Shoreline Residential environment designation is assigned to shoreline areas that are associated with lakes and are predominantly single-family or multi-family residential development or are platted, zoned, and planned for residential development.

c) Designated Areas

1) Description

Shoreline Residential environment areas include those shorelands adjacent to American Lake, Gravelly Lake, Lake Louise, and Lake Steilacoom that are primarily developed and/or platted and zoned for residential uses, and where that use is anticipated to continue in the future.

2) Rationale

The segments of shoreline designated as Shoreline Residential are predominately-residential land uses and all areas are platted and planned for low to moderate residential density. Urban services and infrastructure are provided to these properties.

d) Management Policies

- 1) Residential activities and developments that protect and enhance the shoreline are preferred.
- 2) Limited non-residential uses, such as water-oriented recreation facilities, parks, day care facilities, and home occupation businesses should be allowed, provided they are consistent with the residential character and the requirements of the underlying zone.
- 3) Development should be located, sited, designed, and maintained to protect, enhance, and be compatible with the shoreline environment designation.
- 4) Development regulations should require the preservation of ecological functions, taking into account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other comprehensive planning considerations.

- 5) Multi-family development, subdivisions of more than four lots and recreational developments should provide public access to the shoreline and joint use facilities for community recreational needs.
- 6) Low impact development (LID) best management practices (BMPs), such as minimizing effective impervious surfaces, infiltrating run-off, using green roofs and pervious pavers and other BMPs, should be implemented where feasible.
- 7) Private property owners should be encouraged to preserve and enhance native shoreline vegetation and use environmentally friendly landscaping practices, through incentives, information, and other assistance.

e) Regulations

- 1) Shoreline Use: Permitted, conditional, and prohibited uses for the Shoreline Residential environment are listed in Chapter 4, Specific Shoreline Use Policies and Regulations, and summarized in Table I of that Chapter.
- 2) Development Standards: Shoreline related development standards for the Shoreline Residential environment are summarized in Table II of Chapter 4.

2. Urban - Stream Protection Environment

a) Purpose

The purpose of the Urban - Stream Protection environment designation is to ensure appropriate protections for the ecological functions of Clover Creek, while recognizing the limited demand for water dependent uses in this environment. This designation reflects the current developed urban nature of most upland areas and provides for a range of uses consistent with underlying zoning, while closely regulating the intensity of development allowed within stream and wetland buffers.

b) Designation Criteria

The Urban - Stream Protection environment designation is assigned to shorelands along Clover Creek with the following characteristics:

- 1) Riparian functions impacted by historic development as documented in the Shoreline Analysis and Characterization Report;
- 2) Key management objectives include stream function enhancement, flood hazard mitigation, and fostering economically productive uses; and
- 3) A mix of urban land uses exist in upland areas, including single-family, higher density multi-family and commercial uses, depending on the underlying zoning.

c) Designated Areas

1) Description

The Urban - Stream Protection environment designation is assigned to areas that include Clover Creek between Lake Steilacoom and the City of Lakewood city limits, except for the shorelands in Springbrook Park adjacent to Clover Creek.

2) Rationale

The Urban - Stream Protection environment designation will protect and enhance stream functions by encouraging vegetative buffer enhancement and limiting development near the stream, while accommodating and allowing flexibility for existing and future uses, including single-family residential and higher intensity commercial and multi-family uses, where allowed by underlying zoning.

d) Management Policies

- 1) Stream functions should be protected, preserved and, where possible, enhanced per the Critical Areas provisions, while also encouraging redevelopment and allowing sufficient flexibility for accommodating existing and future upland shoreline uses.
- 2) Development or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions should not be allowed.
- 3) Modification of the stream channel should not be allowed, except where there will be a clear improvement or restoration of stream functions.
- 4) Reflecting current land uses, a wide range of shoreline uses should be allowed outside of required setbacks and, critical areas, and buffers, including single- and multi-family residential, parks and open space, and commercial uses on existing commercial sites or where a public benefit consistent with the SMA's objectives can be provided, such as public access, mixed-use or ecological enhancement.
- 5) All uses should be consistent with the requirements of the underlying zoning. No new industrial uses should be allowed.
- 6) LID should be implemented where feasible for any development occurring within the Urban – Stream Protection environment.

e) Regulations

- 1) Shoreline Use: Permitted, conditional, and prohibited uses for the Urban - Stream Protection environment are listed in Chapter 4, Specific Shoreline Use Policies and Regulations, and are summarized in Table I of that Chapter.
- 2) Development Standards: Shoreline related development standards for the Urban - Stream Protection environment are summarized in Table II of Chapter 4.

3. Urban Park Environment

a) Purpose

The purpose of the Urban Park environment designation is to protect and restore ecological functions of open space in urban and developed settings, while allowing a variety of compatible uses, with an emphasis on water oriented recreation.

b) Designation Criteria

The Urban Park environment is assigned to areas with one or more of the following characteristics:

- 1) They are generally suitable for water-oriented recreational uses,
- 2) They have potential for ecological restoration,
- 3) They retain important ecological functions, even though partially developed, or
- 4) They have the potential for development that is compatible with ecological restoration.

c) Designated Areas

1) Description

Urban Park environment areas include:

- a. Shorelands in all public parks and public street ends located on lakes within the shoreline jurisdiction;
- b. Eagle Point (a private subdivision open space tract on American Lake, Parcel # 4001800540);
and
- c. Lakewold Gardens (a private facility with public access on Gravelly Lake).
- d. Shorelands adjacent to Waughop Lake; and
- e. Shorelands in Springbrook Park adjacent to Clover Creek.

2) Rationale

This designation will preserve and enhance the ecological functions of the publicly owned properties and private recreational areas of the shoreline while retaining future options for active and passive water oriented shoreline recreation and public access. The publicly owned parks offer potential for ecological restoration.

d) Management Policies

- 1) Uses that preserve the natural character of the area or promote preservation of open space, either directly or over the long term, should be the primary allowed uses. Uses that result in restoration of ecological functions should be allowed if the use is otherwise compatible with the purpose of the environment and the current uses and conditions at the specific location.
- 2) Water dependent recreational uses, such as public access piers, recreational floats and boat launches, should be given priority over non-water dependent recreational uses, provided they can be located, designed, constructed, operated, and mitigated in a manner that ensures no net loss of ecological function.
- 3) Public access and public recreation objectives should be implemented whenever feasible and whenever significant ecological impacts can be mitigated.
- 4) Water oriented recreation uses, such as viewing trails, benches and shelters, should be emphasized and non-water oriented uses should be minimized and allowed only as an accessory use; for example picnic areas, forest trails and small playground areas would be acceptable, but tennis courts and developed sports fields would not.
- 5) Standards should be established for shoreline stabilization, vegetation conservation, water quality and shoreline modifications to ensure that new development does not result in a net loss of shoreline ecological functions or further degrade other shoreline values.
- 6) LID should be implemented where feasible for any development occurring within the Urban Park environment.

e) Regulations

- 1) Shoreline Use: Permitted, conditional, and prohibited uses for the Urban Park environment are listed in Chapter 4, Specific Shoreline Use Policies and Regulations, and summarized in Table I of that Chapter.
- 2) Development Standards: Shoreline related development standards for the Urban Park environment are summarized in Table II of Chapter 4.

4. Conservancy Environment

a) Purpose

The purpose of the Conservancy environment designation is to protect and restore ecological functions of open space, floodplain, and other sensitive lands, while allowing a variety of compatible uses, with an emphasis on passive recreation, such as trails and wildlife viewing.

b) Designation Criteria

The Conservancy environment is assigned to shorelines with one or more of the following characteristics:

- 1) They are generally unsuitable for intensive water-dependent recreational uses;
- 2) They are open space, flood plain or other sensitive areas that should not be more intensively developed;
- 3) They have potential for ecological restoration;
- 4) They retain important ecological functions, even though partially developed; or
- 5) They have limited potential for development that is compatible with ecological restoration.

c) Designated Areas

- 1) Description

Conservancy environment areas include:

- a. Shorelands of Chambers Creek between Lake Steilacoom and the confluence of Leach Creek; and
- b. Those portions of the Oakbrook 4th Addition subdivision that fall within the shoreline jurisdiction.

- 2) Rationale

This designation will preserve and enhance the ecological functions of undeveloped and minimally developed portions of the shoreline and sensitive lands while retaining future options for passive shoreline recreation and public access. These areas also offer potential for ecological restoration.

d) Management Policies

- 1) Uses that preserve the natural character of the area or promote preservation of open space or sensitive lands either directly or over the long term should be the primary allowed uses. Uses that result in restoration of ecological functions should be allowed.
- 2) Water oriented recreation uses, such as viewing trails, benches and shelters, should be emphasized and non-water oriented uses should be minimized and allowed only as an accessory use; for example picnic areas, forest trails and small playground areas would be acceptable, but tennis courts and developed sports fields would not.
- 3) Intensive water dependent facilities, such as motorized boat ramps, are generally not appropriate for these areas; limited facilities for swimming, viewing, and launch of non-motorized craft should be

allowed in suitable areas.

- 4) Public access and public recreation objectives should be implemented whenever feasible and whenever significant ecological impacts can be mitigated.
- 5) Standards should be established for shoreline stabilization, vegetation conservation, water quality and shoreline modifications to ensure that new development does not result in a net loss of shoreline ecological functions or further degrade other shoreline values.
- 6) LID should be implemented where feasible for any development occurring within the Conservancy environment.

e) Regulations

- 1) Shoreline Use: Permitted, conditional, and prohibited uses for the Conservancy environment are listed in Chapter 4, Specific Shoreline Use Policies and Regulations, and summarized in Table I of that Chapter.
- 2) Development Standards: Shoreline related development standards for the Conservancy environment are summarized in Table II of Chapter 4.

5. Natural Environment

a) Purpose

The purpose of the Natural environment designation is 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. These systems require that only very low intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes. Local agencies should include planning for restoration of degraded shorelines within this environment.

b) Designation Criteria

A Natural environment designation is assigned to shoreline areas if any of the following characteristics apply:

- 1) The shoreline is ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be changed by human activity;
- 2) The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest; or
- 3) The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.

c) Designated Areas

1) Description

The Natural environment areas include the portion of Chambers Creek that includes the south bank between the confluence of Leach Creek and where Chambers Creek crosses the western City boundary. Parcels within the Oakbrook 4th Addition subdivision are specifically excluded from the Natural environment designation.

2) Rationale

This portion of Chambers Creek has generally high ecological function, a largely natural shoreline and is unable to support significant new development without significant adverse impacts to ecological function.

d) Management Policies

- 1) Any use that would substantially degrade the ecological functions or natural character of the shoreline area should not be allowed.
- 2) The following new uses should be prohibited in the Natural environment:
 - a. Commercial uses.
 - b. Industrial uses.
 - c. Non-water-oriented recreation, except the maintenance, repair, and limited expansion of existing facilities and uses.
 - d. Roads, utility corridors, and parking areas that can be located outside of Natural environment designated shorelines.
 - e. Multi-Family Residential.
 - f. Commercial forestry.
 - g. Agricultural uses.
- 3) Scientific, historical, cultural, educational research uses, and low-intensity water-oriented recreational access uses may be allowed if no significant ecological impact in the area will result.
- 4) Certain over-water structures, such as docks and piers, should not be allowed because of their impacts to the Natural environment and because there is not sufficient demand for these structures to support the water dependent uses on Chambers Creek.
- 5) New development or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions should not be allowed.

- 6) The subdivision of property should not be allowed.
- 7) LID should be implemented where feasible for any development occurring within the Natural environment.

e) Regulations

- 1) Shoreline Use: Permitted, conditional, and prohibited uses for the Natural environment are listed in Chapter 4, Specific Shoreline Use Policies and Regulations, and summarized in Table I of that Chapter.
- 2) Development Standards: Shoreline related development standards for the Natural environment are summarized in Table II of Chapter 4.

6. Aquatic Environment

a) Purpose

The purpose of the Aquatic environment designation is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the OHWM.

b) Designation Criteria

The Aquatic environment designation is assigned to areas waterward of the OHWM.

c) Designated Areas

- 1) Description

Aquatic environment areas include all areas waterward of the OHWM as generally shown in Figure 1, including areas waterward of the OHWM within Chambers Creek and Clover Creek, as determined on a site-by-site basis.

- 2) Rationale

Areas waterward of the OHWM within the City fall within the Aquatic environment designation criteria as set forth in WAC 173-26-211(5)(c). This designation intends to preserve, protect, and manage the ecological functions of all water bodies that are considered waters of the state, as defined by the SMA.

d) Management Policies

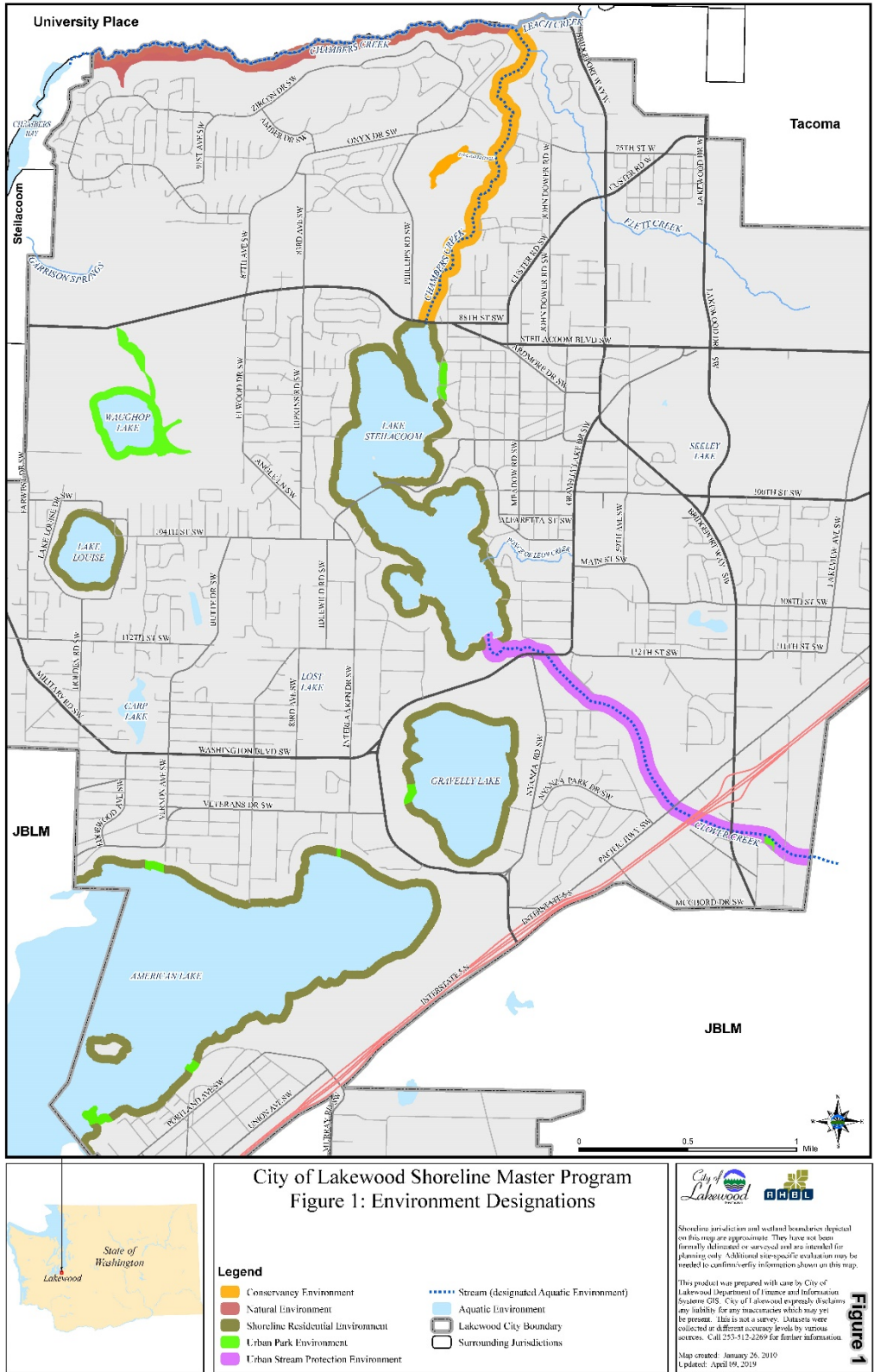
- 1) New over-water structures should be allowed only for water-dependent uses, public access, or ecological restoration.
- 2) The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.

- 3) In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple uses of over-water facilities should be encouraged.
- 4) All developments and uses on waters or their beds 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 fish and wildlife, particularly those species dependent on migration.
- 5) Uses that adversely impact the ecological functions of identified critical freshwater habitats, should not be allowed except where necessary to achieve the objectives of RCW 90.58.020, and then only when their impacts are mitigated according to the sequence described in Chapter 3, Section B(4)(c)(3) of this SMP as necessary to assure no net loss of ecological functions.
- 6) Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrological conditions.

e) Regulations

- 1) Shoreline Use: Permitted, conditional, and prohibited uses for the Aquatic environment are listed in Chapter 4, Specific Shoreline Use Policies and Regulations, and summarized in Table I of that Chapter.
- 2) Development Standards: Shoreline related development standards for the Aquatic environment are summarized in Table II of Chapter 4.

Figure 1. Note – Figure 1 is also available in 11x17 format at www.cityoflakewood.us



Chapter 3 General Shoreline Provisions

A. Introduction

The following policies and regulations apply to all uses, developments, and activities in the shoreline area of the City of Lakewood except for those listed in WAC 173-27-044. General policies and regulations are broken into different topic headings. Each topic includes a description of its applicability, general policy statements, and specific regulations. The intent of these provisions is to be inclusive, making them applicable to all environments, while detailing specific requirements for particular shoreline uses and activities. Topics include the following:

1. Universally Applicable Policies and Regulations
2. Archaeological and Historic Resources
3. Critical Areas
4. Environmental Impacts and Mitigation Sequencing
5. Public Access
6. Restoration
7. Shorelines of Statewide Significance
8. Shoreline Vegetation Conservation (Clearing and Grading)
9. Water Quality, Stormwater, and Non-Point Pollution

These policies and regulations are in addition to other adopted ordinances and rules. Where conflicts exist between regulations, the requirement that most supports the provisions of RCW 90.58.020 shall apply. These interlocking development regulations are intended to make shoreline development responsive to specific design needs and opportunities along the City's shorelines, protect the public's interest in the shorelines' recreational and aesthetic values, and assure, at a minimum, no net loss of ecological functions necessary to sustain shoreline natural resources.

These provisions address the elements of a SMP as required by RCW 90.58.100(2) and implement the SMP Guidelines as established in WAC 173-26-186.

B. Policies and Regulations

1. Universally Applicable Policies and Regulations

a) Applicability

The following provisions describe how this SMP is to be applied and the requirements for all shoreline uses and modifications in all shoreline environment designations.

b) Policies

- 1) The City should keep records of all project review actions within shoreline jurisdiction, including shoreline permits and letters of exemption.
- 2) The City should involve affected federal, state and tribal governments in the shoreline application review process.
- 3) The City should periodically review shoreline conditions to determine whether other actions are necessary to ensure no net loss of ecological functions, protect and enhance visual quality, and enhance residential and recreational uses on the City's shorelines. Such review should include, but is not limited to:
 - a. Water quality;
 - b. Conservation of aquatic vegetation (noxious weed control and vegetation enhancement that supports more desirable ecological and recreational conditions);
 - c. Changing visual character as result of new residential development, including additions, and individual vegetation conservation practices (both along shoreline and in upland areas); and
 - d. Shoreline stabilization and modifications.

c) Regulations

- 1) All proposed shoreline uses and development, including those that do not require a shoreline permit, must conform to the SMA and to the policies and regulations of this SMP.
- 2) The policies listed in this SMP are intended to provide broad guidance and direction for the "regulations" applied by the City. These policies constitute the Shoreline Element of the City's Comprehensive Plan.
- 3) If provisions within this SMP conflict, or where there is a conflict with other City policies and regulations, the provisions most directly implementing the objectives of the SMA, as determined by the Shoreline Administrator, shall apply unless specifically stated otherwise.
- 4) Shoreline uses, modifications and conditions listed as "prohibited" shall not be eligible for consideration as a variance or CUP. See Chapter 4 for Shoreline Use regulations and Chapter 6 (Administration) for exemptions, variances, conditional uses, and nonconforming use provisions.

2. Archaeological and Historic Resources

a) Applicability

The following provisions apply to archaeological and historic resources that either are recorded at the state historic preservation office and/or by local jurisdictions or have been inadvertently uncovered. Archaeological sites located both in and outside shoreline jurisdiction are subject to Chapter 27.44 RCW (Indian Graves and Records) and Chapter 27.53 RCW (Archaeological Sites and Records). Development or uses that may affect such sites shall comply with Chapter 25-48 WAC, as well as the provisions of this chapter.

b) Policies

- 1) Due to the limited and irreplaceable nature of archaeological and historic resources, destruction of or damage to any site having historic, cultural, scientific, or educational value as identified by the appropriate authorities, including affected Native American tribes, and Washington State Department of Archaeology and Historic Preservation should be prevented.
- 2) New development should be compatible with existing historic structures and cultural areas.

c) Regulations

- 1) Developers and property owners shall immediately stop work and notify the City, the Department of Archaeology and Historic Preservation and affected Native American tribes if archaeological resources are uncovered during excavation.
- 2) A site inspection or evaluation by a professional archaeologist in coordination with affected Native American tribes shall be required for all permits issued in areas documented to contain archaeological resources. Failure to comply with this requirement shall be considered a violation of the shoreline permit.
- 3) Significant archaeological and historic resources shall be permanently preserved for scientific study, education, and public observation. When the Shoreline Administrator determines that a site has significant archeological, natural scientific or historical value, a substantial development permit and/or any other permit authorizing development or land modification shall not be issued which would pose a threat to the site. The Shoreline Administrator may require that a site be redesigned or that development be postponed in such areas to allow investigation of public acquisition potential and/or retrieval and preservation of significant artifacts.
- 4) In the event that unforeseen factors constituting an emergency as defined in WAC 173-27-040(2)(d) necessitate rapid action to retrieve, preserve, or protect property containing artifacts or data identified above from damage by the elements, the project may be exempted from the permit requirement. The City shall notify Ecology, the State Attorney General's Office, and the State Historic Preservation Office of such a waiver in a timely manner.
- 5) Archaeological sites located both in and outside the shoreline jurisdiction are subject to Chapter 27-

44 RCW (Indian Graves and Records) and Chapter 27-53 RCW (Archaeological Sites and Records) and shall comply with Chapter 25-48 WAC or its successor as well as the provisions of this SMP.

- 6) Identified historical or archaeological resources shall be considered in park, open space, public access, and site planning with access to such areas designed and managed to give maximum protection to the resource and surrounding environment.
- 7) Interpretive signs, plaques or other means to provide information about historical and archaeological features shall be provided, except when the location of resources are protected by state or federal law or disclosure of such information would potentially endanger the resources in question.

3. Critical Areas

Critical areas in shoreline jurisdiction are regulated by this SMP. As such, the Critical Areas and Natural Resource Lands Regulations, Ordinance No. 630 § 10, December 7, 2015, and Ordinance No. 362 3(part), November 15, 2004, codified under Chapter 14 of the LMC, is herein incorporated by reference into this SMP (see Appendix A) with the exceptions and modifications noted below.

a) Applicability

Exceptions to the applicability of the Critical Areas and Natural Resource Lands Regulations in shoreline jurisdiction are provided below.

- 1) If provisions of the Critical Areas and Natural Resource Lands Regulations and other parts of the SMP conflict, the requirement that most supports the provisions of the SMA as stated in RCW 90.58.020 shall apply, as determined by the Shoreline Administrator.
- 2) The setbacks and buffer provisions for SMA water bodies contained in Chapter 4, Section C shall apply.
- 3) Provisions of the Critical Areas and Natural Resource Lands Regulations that are inconsistent with the SMA and SMP Guidelines shall not apply or are specifically modified in shoreline jurisdiction, as follows:
 - a. The provisions do not extend shoreline jurisdiction beyond the limits specified in Chapter 2, Section C of this SMP.
 - b. Provisions relating to exemptions in LMC Section 14.142.070 and allowable activities such as those outlined in LMC Sections 14.154.090 and 14.162.090 do not relieve the applicant from obtaining a substantial development permit or other permit or approval required under this SMP, or meeting the specific requirements identified in other sections of the SMP, including, but not limited to, mitigation sequencing and the no net loss requirement.
 - c. Provisions that include a “reasonable use determination” shall not apply within shoreline jurisdiction. Specifically, LMC Sections 14.142.080 and 14.142.090 do not apply. Such uses and

developments require a variance in accordance with Chapter 6 of this SMP.

- d. Provisions relating to variance procedures and criteria do not apply in the shoreline jurisdiction. Specifically, LMC Section 14.142.110, which references variance procedures in the LMC, does not apply. Variance procedures and criteria within shoreline jurisdiction have been established in this SMP, Chapter 6 Section D and in WAC 173-27-170.
- e. Provisions relating to nonconforming uses in LMC Section 14.142.180 shall not apply. Please see Chapter 6, Section F for nonconforming development standards within shoreline jurisdiction.
- f. Geologically Hazardous Areas. Provisions contained in LMC Section 14.146.000 are hereby clarified and amended.
 - i. New development and the creation of new lots through subdivision shall not be allowed when it would cause foreseeable risk from geological conditions to people or improvements during the life of the development.
 - ii. New development that would require structural shoreline stabilization over the anticipated life of the development shall not be allowed, unless stabilization is necessary to protect allowed uses where no alternative locations are available and no net loss of ecological functions will result.
 - iii. All shoreline stabilization shall comply with Chapter 5, Section C(1 and 2).
- g. Waughop Lake shall be subject to the setback requirements outlined in the SMP and not to the 35' buffer requirement in the LMC Section 14.154.060(B).
- h. Identification of wetlands and delineation of their boundaries shall be done in accordance with the most recent version of the approved federal wetland delineation manual and applicable regional supplements, pursuant to WAC 173-22-035. All areas within the shoreline management area meeting the wetland designation criteria in that procedure are hereby-designated critical areas and are subject to the provisions of this SMP. See LMC Chapter 14.162.
- i. Special permitted uses identified in LMC Section 14.162.060 may be authorized pursuant to the requirements herein, however, these provisions do not relieve an applicant from complying with all other procedural and substantive requirements of this SMP, including, but not limited to, mitigation sequencing, and no net loss.
- j. Wetland Buffers. The following modifications to LMC Section 14.162.080 shall apply.
 - i. Buffer width averaging in LMC Section 14.162.080(B)(1) shall be limited such that the buffer at its narrowest point is no less than 75% of the standard width.
 - ii. Administrative buffer reductions allowed under LMC Section 14.162.080(B)(2) shall be limited to 25% of the standard buffer width.

- iii. Within shoreline jurisdiction, wetland buffers as outlined in LMC Section 14.162.080 (A) for Category I wetlands shall not apply. Wetland buffers within shoreline jurisdiction for Category I wetlands shall be 300 feet.
- k. Mitigation. LMC Section 14.162.100(A) shall not apply. Mitigation sequencing shall follow the requirements of Chapter 3, Section B(4)(c)(3).
- l. Agricultural Activities. LMC Section 14.162.110 shall not apply.
- m. Alternative Review Process, Corps of Engineers, Section 404 Permit. LMC Section 14.162.120 shall not be construed to modify the requirements contained in this SMP. In all cases, the buffer requirements identified herein shall apply and mitigation sequencing as required in Chapter 4, Section B(4)(c)(3) must be employed in the design, location and operation of the project.
- n. In-Stream Structures. Please see Chapter 5, Section C(5)(h) for regulations pertaining to in- stream structures such as dams and weirs.
- o. Channel Migration Zones (CMZ). Within the shoreline jurisdiction surrounding Chambers Creek, the Shoreline Administrator shall require a channel migration study when the City determines that a shoreline use, development or modification proposal has the potential to interfere with the process of channel migration. Potential CMZ reaches are shown on map 12 of the Shoreline Analysis Report dated October 1, 2010. The study shall include recommended measures (consistent with mitigation sequencing) that demonstrate how no net loss of ecological functions associated with channel migration will be achieved. The proposal must demonstrate how it will avoid affecting the CMZ through utilization of nonstructural flood hazard measures and avoid the need for future shoreline modifications and structural flood hazard measures.
- p. Flood Hazard Overlay. LMC Section 14.158.030 incorporates the Flood Hazard Overlay provisions of LMC Section 18A.40.100 by reference. In addition to the standards contained therein, the following shall apply:
 - i. Where feasible, nonstructural flood hazard reduction measures should be implemented.
 - ii. Development shall not increase flood hazards significantly or cumulatively and must be consistent with adopted and approved comprehensive flood hazard management plans, other comprehensive planning efforts, the requirements of the SMA and Chapter 173-26 WAC.
 - iii. New development and uses, including the subdivision of land, shall not be established when it is reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the CMZ or floodway.
 - iv. The following uses may be authorized within the CMZ or floodway:
 - a. Ecological restoration or projects that protect ecosystem processes or ecological functions.
 - b. 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 area.

- c. Repair and maintenance of an existing legal use, provided such actions do not cause significant ecological impacts or increase flood hazards to other users.
 - d. Modifications or additions to an existing legal use, provided that further channel migration is not limited and the new development includes appropriate protection of ecological functions.
 - e. Development where existing structures prevent active channel movement and flooding.
 - f. Measures to reduce shoreline erosion, if it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition; the measure does not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions; and that the measure includes appropriate mitigation of impacts to ecological functions associated with the stream.
- v. New structural flood hazard reduction measures shall be allowed in shoreline jurisdiction only when it can be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development, that nonstructural measures are not feasible, that impacts on ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss, and that appropriate vegetation conservation actions are undertaken consistent with the requirements of Chapter 3, Section C(8).
- vi. 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. 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 geotechnical analysis.
- vii. New structural public flood hazard reduction measures, such as dikes and levees, shall dedicate and improve public access pathways unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, unacceptable and immitigable significant ecological impacts, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.
- viii. The removal of gravel for flood management purposes shall be consistent with an adopted flood hazard reduction plan and with this SMP and allowed only after a biological and geomorphological study shows that extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of ecological functions, and is part of a comprehensive flood management solution.

- ix. Structural flood hazard reduction measures shall be consistent with an adopted comprehensive flood hazard management plan approved by the State that evaluates cumulative impacts to the watershed system.
- x. Flood hazard overlay variance criteria and requirements in LMC Section 18A.40.160 are in addition to the standard shoreline variance criteria and requirements identified in Chapter 6, Section D(1).

4. Environmental Impacts and Mitigation Sequencing

a) Applicability

A primary concern of the SMA is the environmental impact that uses and development may have on the fragile shorelines of the state. The following policies and regulations specify how environmental impacts shall be addressed in project design, construction, and regulatory approval and apply to all uses, activities, and development, regardless of whether a permit is required.

b) Policies

- 1) Shoreline processes and ecological functions should be protected through regulatory and non-regulatory means, including acquisition of key properties and conservation easements, development regulation, and providing incentives to encourage ecologically sound design.
- 2) The scenic aesthetic quality of shoreline areas and vistas should be preserved to the greatest extent feasible.
- 3) Adverse impacts on the natural environment should be minimized during all development phases (e.g. design, construction, operation, and management) and mitigation sequencing as described in the regulations should be applied to achieve no net loss of shoreline ecological functions.
- 4) Shoreline developments that propose to enhance environmentally sensitive areas, natural characteristics, shoreline resources, and provide water oriented public access and recreational opportunities should be encouraged and are consistent with the fundamental policies of this SMP.

c) Regulations

- 1) All shoreline uses and developments shall be located, designed, constructed, and mitigated to result in no net loss of ecological functions necessary to sustain shoreline natural processes.
- 2) All shoreline uses and activities shall be located and designed to prevent or minimize the need for shoreline protection structures (bulkheading, riprap, etc.), stabilization, landfills, dredging, groins, jetties, or substantial site regrading.
- 3) Where required, mitigation measures shall be applied in the following sequence listed in order of priority; lower priority measures shall be applied only when higher priority measures are determined to be infeasible or inapplicable:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action;
 - b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations;
 - e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
 - f. Monitoring the impact and the compensation projects and taking appropriate corrective measures.
- 4) All shoreline developments shall be located, constructed, and operated so as not to be a hazard to public health and safety.
 - 5) Identified significant short term, long term, or cumulative adverse environmental impacts lacking appropriate mitigation to ensure no net loss of ecological functions necessary to sustain shoreline processes shall be sufficient reason for permit denial.
 - 6) Substantive authority under the State Environmental Policy Act may be used to mitigate any environmental impacts not specifically or adequately addressed by the regulations contained in this SMP.

5. Public Access

a) Applicability

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. There is a variety of types of public access, including, but not limited to, picnic areas, pathways and trails, promenades, bridges, street ends, ingress and egress, and parking.

Existing formal public access to shorelines within the City includes American Lake North Park, Harry Todd Park (American Lake), Edgewater Park (Lake Steilacoom), Fort Steilacoom Park (Waughop Lake), and Chambers Creek Canyon Park. In addition, there are a number of public street ends where there may be potential for developing public access.

b) Policies

- 1) Public shoreline access should be provided and enhanced through purchase or retention of access

easements, signage of public access points, and designation and design of specific shoreline access areas for wildlife viewing.

- 2) Shoreline areas that hold unique value for public enjoyment should be identified and retained purchased, or easements should be acquired for public use. Prioritize sites in terms of short and long-term acquisition and development.
- 3) Street crossings of Clover Creek and public street ends terminating at the creek should be considered for public access facilities.
- 4) Access should be provided for a range of users including pedestrians, bicyclists, boaters, and people with disabilities to the greatest extent feasible.
- 5) Provisions for shoreline access should be required when the proposed development can be shown to have an impact on public access to waters of the state. Shoreline projects shall not be permitted that result in any net loss of shoreline access.
- 6) Required public access exactions should be reasonably related to the nature and scope of the project's impact to public access resources. Proximity to the water, by itself, shall not constitute an impact or basis for an exaction.
- 7) The design, construction, and operation of permitted uses in the shoreline jurisdiction should be regulated to minimize interference with the public's use of the water.
- 8) Access to all shoreline areas should be improved through expanded non-motorized connections and transit service.
- 9) Shoreline public access trails should be integrated with other existing and planned regional trails where feasible to provide non-motorized access and community connections.
- 10) Existing and proposed public access and recreational uses should be ensured to not adversely affect the integrity and character of the shoreline, threaten fragile shoreline ecosystem, or impair or detract from the public's visual or physical access to the water.
- 11) Preservation and enhancement of the public's visual access to all shoreline areas should be encouraged through the establishment of setbacks and height limits that ensure view corridors, but not be construed to mean excess removal of vegetation that partially impairs views.
- 12) Physical access for swimming and non-motorized boating, passive recreation (such as interpretive trails), and habitat enhancement should be encouraged for the management of shoreline public access sites.
- 13) Public access facilities should provide auxiliary facilities, such as parking and sanitation facilities, when appropriate, and they should be designed for accessibility by handicapped and physically impaired persons. Auxiliary facilities should be located outside of the shoreline management area or near the outer edge of the shoreline management area if feasible.

- 14) Public access should be designed to provide for public safety and to minimize potential impacts to private property and individual privacy.
- 15) Regulations should ensure that the development of active recreational facilities results in no net loss of ecological function. Regulations should address upland concerns, such as the location and design of parking and auxiliary facilities and active play areas, as well as the development of in-water and nearshore structures, such as non-motorized boat launches, piers, and swimming areas.
- 16) Public access facilities should be constructed of environmentally friendly materials, use LID BMPs where feasible, and sustain natural processes.
- 17) Regulations should provide guidance for the construction of trails in particularly environmentally sensitive shoreline segments along Chambers Creek and Waughop Lake.

c) Regulations

- 1) Where the City has shown that a project would have an adverse impact on existing public access to the waters of the state or create a new demand for public access, provisions shall be made to mitigate the impact/meet the projected demand and ensure that there is no net loss to public access resources or opportunities. Examples of impacts to shoreline access resources or new demand include, but are not limited to:
 - a. The development would result in increased demand for shoreline access by the location of new dwelling units within the 200' SMA jurisdiction without physical shoreline access for each unit.
 - b. The development would foreclose an opportunity to access an area without existing public access, or where the opportunity for access is unique.
 - c. The proposed development would interfere with existing public access.
 - d. The proposed development would interfere with planned public access facilities shown in an adopted plan, ordinance, or resolution of the Lakewood City Council.
 - e. The proposed development would create additional potential demand for emergency response services without adequate potential access to the shoreline for emergency responders.
 - f. Instances where there is an existing public access or access easement applicable to the property.
- 2) The Community Development Director may authorize reasonable adjustments to development standards such as lot coverage, minimum lot width, setbacks, etc. in order to accommodate public access. Such adjustments may require a variance in accordance with Chapter 6(D)(1).
- 3) Development exactions for public access shall be reasonably related to the scope and nature of the project and its impact to public access. Access may be limited to the final users or residents of the development where full public access is not required to mitigate the identified impact.

- 4) Developments, uses, and activities shall be designed and operated to avoid blocking, reducing or adversely interfering with the public's visual or physical access to the water and the shorelines. In providing visual access to the shoreline, natural vegetation shall not be excessively removed either by clearing or by topping.
- 5) Public access sites shall be connected directly to the nearest public street through a parcel boundary, tract, or easement.
- 6) Public access sites shall be made barrier free for the physically disabled where feasible.
- 7) Required public access sites shall be fully developed and available for public use at the time of occupancy or use of the development or activity.
- 8) Public access easements and permit conditions shall be recorded on the deed where applicable or on the face of a plat, if applicable, or short plat as a condition running in perpetuity with the land. Recording with the Pierce County Recorder's Office shall occur at the time of permit approval (See RCW 58.17.110; relating to subdivision approval).
- 9) The standard state approved logo and other approved signs that indicate the public's right of access and hour of access shall be constructed, installed, and maintained by the applicant in conspicuous locations at public access sites. Alternatively, where public access is prohibited, property owners may install signs indicating this, subject to size and location restrictions in a required permit.
- 10) Future actions by the applicant or other parties shall not diminish the usefulness or value of the public access site.
- 11) Physical public access shall be designed to prevent significant impacts to sensitive natural systems, follow the mitigation sequence identified in Chapter 3, Section B(4)(C)(4) and achieve no net loss of shoreline ecological function .
- 12) Where public access is to be provided by a trail the requirements contained in Chapter 4, Section (D)(8) shall apply.
- 13) Whenever financially feasible and practical, the City shall require the use of building materials and technologies whose production and use result in reduced environmental impacts when developing public access to the shoreline.
- 14) The Administrator may waive the requirement for public access where it is demonstrated to be infeasible due to reasons for incompatible uses, safety, security, or impact to the shoreline environment or due to constitutional or other applicable legal limitations. In determining infeasibility, the Administrator shall consider alternate methods of providing public access such as offsite improvements, viewing platforms, separation of uses and restricting hours for public access.

6. Restoration

a) Applicability

Restoration refers to the reestablishment or upgrading of impaired ecological shoreline processes or functions. The following policies are intended to guide actions to improve shoreline ecological functions over time where such functions have been degraded. Restoration is distinct from mitigation measures necessary to achieve no net loss of shoreline functions and the City's commitment to plan for restoration will be implemented primarily through non-regulatory means (e.g. incentives, public projects and voluntary private actions).

b) System-Wide Restoration Policies

- 1) Areas that are biologically and aesthetically degraded should be reclaimed and restored to the greatest extent feasible while maintaining appropriate use of the shoreline. Water quality of all water bodies within the shoreline management area should be improved by managing the quality and quantity of stormwater in contributing systems, consistent with the latest Ecology Stormwater Management Manual for Western Washington.
- 2) The quality, width, and diversity of native vegetation in protected corridors adjacent to lake and stream habitats should be increased to provide safe migration pathways for fish and wildlife, food, nest sites, shade, perches, and organic debris. Strive to control non-indigenous plants or weeds that are proven harmful to native vegetation or habitats.
- 3) Work should continue with other jurisdictions and stakeholders on implementation of the Water Resource Inventory Area (WRIA) 12 Plan.
- 4) Funding for various restoration actions and programs should be sought from local sources and by working with other WRIA 12 jurisdictions and stakeholders to seek federal, state, grant and other funding opportunities.
- 5) A public education plan should be developed to inform private property owners in the shoreline zone and in the remainder of the City about the effects of land management practices and other unregulated activities (such as pesticide/herbicide use, car washing) on fish and wildlife habitats. In 2018, the Tahoma Audubon Society launched an outreach program targeted at property owners adjacent to creeks and Steilacoom Lake. Mailings, online resources and workshops educate about: pesticides' effects on water quality and backyard plantings that attract birds and wildlife and could increase salmon runs in Chambers and Clover Creeks over time. This effort is conducted in cooperation with the Chambers/Clover Creek Watershed Council and the Clover Creek Council.
- 6) Lake area and wetland should be protected, enhanced, and restored throughout the contributing basin where functions have been lost or compromised.

c) SMA Restoration Policies

- 1) Waughop Lake (Fort Steilacoom Park), American Lake North Park, Harry Todd Park, and Edgewater

Park should be targeted for restoration of shoreline natural resources and functions while ensuring continued public access to the shoreline.

- 2) Restoration of aquatic and riparian habitat along Clover Creek should be encouraged and accomplished over time through incentives for private property owners, stormwater management improvements, and City capital improvement projects.
- 3) The City should collaborate with Pierce County and the City of University Place for any restoration activities that would improve habitat and other ecological functions within Chambers Creek Canyon Park.
- 4) The City, Washington State Parks, and Pierce County should protect natural areas and continue to identify and implement shoreline restoration projects at Fort Steilacoom Park, while ensuring continued public access.
- 5) Ecological functions of lake shorelines should be improved by removing bulkheads and replacing these features to the extent feasible with bioengineered stabilization solutions to improve aquatic habitat conditions.
- 6) Ecological functions of streams and related habitat with stream bank stabilization should be improved using native vegetation.
- 7) American Lake North Park and Harry Todd Park should be targeted for limited habitat enhancements that are designed and sited to be compatible with the heavy active recreation use at these parks. Opportunities include planting of native vegetation where appropriate.
- 8) Habitat conditions should be improved by increasing large woody debris recruitment potential through plantings of trees along the lakeshore, particularly conifers. Where a safety hazard will not be created, installation of large woody debris should be encouraged to meet short-term needs.
- 9) Single-family residential properties should be targeted with incentives, outreach, and information for homeowners who are willing to voluntarily remove bulkheads, plant native vegetation and recruit large woody debris.
- 10) The amount and impact of overwater and in-water structures should be decreased within SMP lakes through minimization of structure size and use of more environmentally friendly materials, including grated decking.
- 11) American Lake North Park, Harry Todd Park, Springbrook Park and Open Space, and Chambers Creek Canyon Park should be targeted for the use of environmentally friendly materials and design during the future planned development of recreational facilities.
- 12) Native vegetation should be preserved and restored along shorelines to the greatest extent feasible.
- 13) Aquatic invasive species in American Lake, Gravelly Lake, Lake Louise, and Waughop Lake should be monitored and controlled, and participation in lake-wide efforts at Lake Steilacoom should continue

to reduce populations of non-native aquatic vegetation.

- 14) Restoration projects may include shoreline modification actions such as vegetation modification, shoreline stabilization, dredging or filling in accordance with all applicable provisions in this SMP and provided the primary purpose of such actions is clearly restoration of natural character and ecological functions of the shoreline.
- 15) In accordance with RCW 90.58.580 and WAC 173-27-215, a Substantial Development Permit is not required for development on land that is brought under shoreline jurisdiction due to a shoreline restoration project. However, projects are still required to comply with the regulations of this Master Program.
- 16) Projects taking place on lands that are brought into shoreline jurisdiction due to a shoreline restoration project that caused a landward shift of the OHWM may apply to the Administrator for relief from the SMP development standards and use regulations under the provisions of RCW 90.58.580. Any relief granted shall be strictly in accordance with the limited provisions of RCW 90.58.580, including the specific approval of the Department of Ecology.

7. Shorelines of Statewide Significance

a) Applicability

The SMA designated certain shoreline areas as shorelines of statewide significance. American Lake is a shoreline of statewide significance. Such shorelines are considered major resources from which all people of the state derive benefits, thus preference is given to uses, which favor long-range goals and support the overall public interest.

b) Policies

In implementing the objectives for shorelines of statewide significance, the City should consider the following policies in order of priority, 1 being the highest and 6 being the lowest.

- 1) Recognize and protect the statewide interest over local interest.
 - a. Make all information associated with this SMP and proposed amendments publicly available, and consider comments and opinions from groups and individuals representing statewide interests when developing and amending the SMP.
- 2) Preserve the natural character of the shoreline.
 - a. Designate and administer shoreline environment designations and use regulations to protect and restore the shoreline ecology and character.
 - b. Protect and restore diversity of vegetation and habitat associated with shoreline areas.
- 3) Support actions that result in long-term benefits over short-term benefits.
 - a. Restrict or prohibit development that would irreversibly damage shoreline resources.
- 4) Protect the resources and ecology of the shoreline.

- a. All shoreline development should be located, designed, constructed, and managed to avoid disturbance of and minimize adverse impacts to wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes.
 - b. Actively promote aesthetic considerations when contemplating new development, redevelopment of existing facilities or general enhancement of shoreline areas.
- 5) Increase public access to publicly owned areas of the shorelines.
- a. Implement a comprehensive wayfinding signage program that directs the public to publicly owned shoreline areas.
- 6) Increase recreational opportunities for the public in the shoreline.
- a. Plan for and encourage development of facilities for recreational use of the shoreline.

8. Shoreline Vegetation Conservation (Clearing and Grading)

a) Applicability

The following provisions apply to any activity, development, or use which results in the removal of or affect to shoreline vegetation, whether or not that activity requires a shoreline permit. Such activities include clearing, grading, grubbing, and trimming of vegetation. These provisions also apply to vegetation protection and enhancement activities.

b) Policies

- 1) Native shoreline vegetation should be conserved to maintain shoreline ecological functions and/or processes and should mitigate the direct, indirect, and/or cumulative impacts of shoreline development, wherever feasible. Important functions of shoreline vegetation include, but are not limited to:
- a. Providing shade necessary to maintain water temperatures required by salmonids and other organisms for all or a portion of their lifecycles.
 - b. Regulating microclimate in riparian and nearshore areas.
 - c. Providing organic inputs necessary for aquatic life, including providing food in the form of various insects and other benthic macroinvertebrates.
 - d. Stabilizing banks, minimizing erosion and sedimentation, and reducing the occurrence and severity of landslides.
 - e. Reducing introduction of fine sediment into the aquatic environment by minimizing erosion, aiding infiltration, and retaining runoff.
 - f. Improving water quality through filtration and vegetative uptake of nutrients and pollutants.
 - g. Providing a source of large woody debris to moderate stream flows, create hydraulic roughness,

form pools and increase structural diversity for salmonids and other species.

- h. Providing habitat elements for riparian-associated species, including downed wood, snags, migratory corridors, food, and cover.
- 2) Management and control of noxious and invasive weeds should be encouraged, preferably by using non-toxic or natural controls. Control of such species should be done in a manner that retains on-site native vegetation, provides for erosion control, and protects water quality.
- 3) Adverse environmental and shoreline impacts of clearing and grading should be avoided wherever feasible through proper site planning, construction timing and practices, bank stabilization, soil bioengineering and use of erosion and drainage control methods. Maintenance of drainage controls should be a high priority to ensure continuing, effective protection of habitat and water quality.
- 4) All clearing and grading activities should be designed with the objective of maintaining natural diversity in vegetation species, age, and cover density.
- 5) Incentives for the retention and planting of native vegetation should be provided, and extensive lawns should be discouraged due to their limited erosion control value, limited water retention capacity, and associated chemical and fertilizer applications particularly in areas recommended for designation as Shoreline Residential. Incentives could include additional flexibility with building setbacks from American Lake, Gravelly Lake, Lake Louise, and Lake Steilacoom, a simplified permit process with recommended planting plans, reduced or waived permit fees, and/or City participation in a pilot-project that promotes shoreline restoration.
- 6) The City should explore opportunities for the planting and enhancement of native vegetation at American Lake North Park, Harry Todd Park, Edgewater Park, and Fort Steilacoom Park.
- 7) In order to increase habitat and address other ecological functions within the shoreline environment such as wave attenuation, temperature regulation, and bank stabilization, homeowners and property managers should be encouraged to leave diseased and fallen trees in place along the shoreline edge provided the trees are not a danger to public safety or private property.
- 8) The removal of mature trees and native vegetation along American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek should be regulated in a manner that provides greater protection than the current Tree Preservation regulations (LMC Section 18A.50.300). In particular, removal of non-hazardous mature trees and native vegetation within the required setback of American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek should be severely restricted regardless of lot size or use.
- 9) The City should provide information to the public about environmentally appropriate vegetation management, landscaping for shoreline properties and alternatives to the use of pesticides and herbicides, which affect water quality and aquatic habitat.
- 10) Property owners should use the following BMPs when maintaining residential landscapes:

- a. Avoid use of herbicides, fertilizers, insecticides, and fungicides along drainage channels, and shores of American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek, as well as in the water.
- b. Limit the amount of lawn and garden watering to avoid surface runoff.
- c. Dispose of grass clippings, leaves, or twigs properly; do not sweep these materials into the street, into a body of water, or near a storm drain.
- d. Use native plant materials wherever possible in soil bioengineering applications and habitat restoration activities for aquatic weed management. Remove, destroy, and modify aquatic vegetation only to the extent necessary to allow water-dependent activities to continue and in a manner that minimizes adverse impacts to native plant communities. Handle and dispose of weed materials and attached sediments appropriately.

c) Regulations

- 1) Clearing and grading activities and related alteration of the natural landscape within shoreline jurisdiction shall only be allowed in association with a permitted shoreline use, activity or development, with limited exceptions as set forth below:
 - a. Removal of noxious weeds as listed by the state in Chapter 16-750 WAC, provided such activity shall be conducted in a manner consistent with BMPs and the City's engineering and stormwater design standards, and native vegetation shall be promptly reestablished in the disturbed area. Noxious weeds removed under this provision shall be removed by hand or using small equipment to minimize negative impacts to the shoreline environment.
 - b. Pruning consistent with accepted arboricultural practices, maintenance of existing ornamental landscapes, and other activities allowed pursuant to these regulations, if said modification is conducted in a manner consistent with this SMP and results in no net loss to ecological functions or critical fish and wildlife habitats.
 - c. Maintenance or view restoration provided that said activity is conducted in a manner consistent with this SMP and results in no net loss to ecological functions or critical fish and wildlife habitat areas.
 - d. Removal of non-native vegetation, including trees up to six inches in diameter at breast height (dbh), provided all areas of exposed soil are replanted or stabilized.
- 2) All clearing and grading activities must also adhere to the requirements of this SMP and the City's code pertaining to land clearing and grading (Chapter 12A LMC - Public Works; LMC Sections 18A.50.400 - 18A.50.445 - Landscaping; LMC Section 18A.50.231 - Landscape design objectives for specific uses). Additional clearing and grading performance standards may be required as a condition of permit issuance to ensure the proposal will result in no net loss of shoreline ecological functions.
- 3) Shoreline developments shall address vegetation conservation and maintenance through compliance

with this Section, the critical area standards incorporated in Appendix A, mitigation sequencing required in Section B(4)(c)(3) of this Chapter, and any other regulations specific to vegetation management that may be contained in other chapters of this SMP.

- 4) In all shoreline areas, land clearing, grading, filling and alteration of natural drainage features and landforms shall be limited to the minimum necessary for development.
- 5) Properties within the setbacks and buffers of Chambers Creek, Clover Creek, and Waughop Lake shall maintain native vegetation in an undisturbed state.
- 6) Native understory vegetation and trees within the shoreline setbacks in all environments shall be retained, unless removal is necessary to provide water access, to provide limited view corridors, to mitigate a hazard to life or property, or removal is in association with a permitted development. Any removed vegetation shall be replaced to assure no net loss in ecological functions.
- 7) Native understory vegetation and trees within the Natural environment shall be retained, unless removal is necessary to mitigate a hazard to life or property or allow for limited development associated with an educational, historic, water-oriented recreation, or cultural interpretation facility. Any removed vegetation must be replaced and/or enhanced to assure no net loss in ecological functions.
- 8) Within all other shoreline areas, outside of setbacks and buffers, tree removal shall be limited to the minimum necessary to accommodate proposed structures and uses or to mitigate a hazard to life or property. Significant trees, as defined in LMC Section 18A.50.320 shall be replaced according to a tree replacement plan prepared by a qualified professional that demonstrates how no net loss will be achieved.
- 9) The City shall require a shoreline vegetation management plan (SVMP) prepared by a qualified professional as part of any Substantial Development Permit that includes tree removal and land clearing. The City may require a SVMP for exempt activities or other permits involving tree removal and land clearing where necessary if project plans or other information does not clearly demonstrate compliance with this section. The SVMP shall document compliance with the mitigation sequence and identify appropriate compensatory mitigation, performance assurances, and maintenance and monitoring requirements necessary to assure no net loss of ecological functions. See Chapter 4, Section C(3)(a)(4 and 5) for additional SVMP requirements when the proposal involves an administrative setback reduction. The Citywide tree standards contained in LMC Section 18A.50.300 (Ordinance #264, August 20, 2001) shall be the minimum compensatory mitigation standards and the Shoreline Administrator may require additional compensatory mitigation to meet the no net loss standard. All development, including, but not limited to, development on lots that are less than seventeen thousand (17,000) square feet that would otherwise be exempt under the Citywide tree regulations, shall be required to comply with the standards contained in this SMP as well as those in Title 18A LMC.
- 10) Restoration of any shoreline that has been disturbed or degraded shall use native plant materials, unless such restoration occurs within a developed and maintained ornamental landscape, in which case noninvasive plant materials similar to what most recently occurred on-site may be used.

- 11) Snags and downed trees that are not in the path of proposed improvements and do not pose a hazard to life or property shall be retained for wildlife habitat.
- 12) Placement of fifty (50) cubic yards or more of material from off-site (other than surcharge or preload), or the creation or raising of dry upland shall be considered fill and shall comply with the fill provisions in Chapter 5.
- 13) Surfaces cleared of vegetation and not developed must be replanted with native species or other species as approved by the City within one (1) year. Replanted areas shall be planned and maintained such that, within three (3) years, the vegetation is at least ninety (90) percent reestablished.
- 14) Stabilization of exposed erosion-prone surfaces within the shoreline environment shall utilize soil bioengineering techniques wherever feasible instead of hardscape or structural techniques.
- 15) Aquatic vegetation control shall only occur when native plant communities and associated habitats are threatened or where weeds restrict an existing water dependent use. Aquatic vegetation control shall occur in compliance with all other applicable laws and standards, including Ecology and Washington Department of Fish and Wildlife (DFW) requirements. Aquatic vegetation control by mechanical methods is exempt from the requirement to obtain a substantial development permit only if the bottom sediment or benthos is not disturbed in the process. It is assumed that mechanical removal of accumulated vegetation at a level closer than two (2) feet to the root level will disturb the bottom sediment and benthos layer.
- 16) The control of aquatic vegetation by de-rooting, rotovating or other methods, which disturb the bottom sediment or benthos, shall be considered development for which a substantial development permit is required.
- 17) The application of herbicides or pesticides in American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek, wetlands, or surface water conveyances requires a permit from the Ecology and may require preparation of a SEPA checklist for review by other agencies. The individual(s) involved must obtain a pesticide applicator license from the Washington State Department of Agriculture.
- 18) Prior to issuance of any construction, grading, or building permits, the City may require that the permittee post a cash guarantee to assure compliance with vegetation conservation standards. This amount should be equal one hundred fifty percent (150%) of the City Engineer's estimated cost of the project, or no less than two thousand dollars (\$2,000) unless specific proposal details support an alternative amount.
- 19) Prior to final issuance of a building permit, land use permit, or occupancy, a cash guarantee equal to thirty percent (30%) of the landscaping replacement cost may be required to assure compliance with vegetation conservation standards. The cash guarantee may be maintained for a three (3) year period, at which point the Shoreline Administrator will determine if the surety will be released or extended to maintain landscaped areas.

- 20) The Shoreline Administrator shall require the cash guarantees identified above when the proposal involves a variance, a setback reduction consistent with the flexible setback provisions of Chapter 4, Subsection C(3), or work within a critical area or buffer as defined in Appendix A.

9. Water Quality, Stormwater, and Non-Point Pollution

a) Applicability

The following section applies to all development and uses in shoreline jurisdiction that affect water quality and storm water quantity. Human occupation and shoreline area development affect water quality in numerous ways. For example, higher peak stormwater discharges at greater velocities caused by an increase in development and impermeable surfaces leads to scouring and stream bank erosion. Erosion increases suspended solids concentrations and turbidity in receiving waters, and carries heavy metals, household wastes, excess nutrients, and other pollutants into these waters. Increased nitrogen and phosphorus enrichment results in algal growth that depresses levels of dissolved oxygen in receiving waters. Water quality degradation adversely affects wildlife habitat and public health.

Maintaining high water quality standards and restoring degraded systems has been mandated in Chapter 90.58 RCW. In January of 2007, the City received its Western Washington Phase II Municipal Stormwater Permit from the Ecology. Under this permit, the City developed a Stormwater Management Program.

b) Policies

- 1) All shoreline uses and activities should be located, designed, constructed, and maintained to mitigate the adverse impacts to water quality.
- 2) Water quality education efforts should be used to reduce the potential sources of pollutants to American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek and other natural waterways. Phosphorous reduction sources in the Lake Steilacoom and American Lake sub-basins and fecal coliform sources in the Chambers Creek and Clover Creek sub-basins should be emphasized until the City can provide sufficient data to Ecology to have 303d listing removed from these water bodies. The 303d listing is comprised of those waters that are in the polluted water category under the Clean Water Act, for which beneficial uses- such as drinking, recreation, aquatic habitat, and industrial use - are impaired by pollution. Phosphorous sources include, but are not limited to, failing septic systems and residential fertilizer application. Fecal coliform pollutant sources include, but are not limited to, failing septic systems, and duck, geese and dog feces.
- 3) Stormwater impacts should be addressed through the application of the adopted Surface Water Design Manuals and all applicable City stormwater regulations.
- 4) New impervious surfaces should be limited within the shoreline management area by setting maximum impervious surface standards for new development and redevelopment and by encouraging pervious pavement use and other LID BMPs where feasible.

- 5) The City should work with the Tacoma-Pierce County Health Department to ensure existing septic systems are working properly to prevent groundwater and surface water degradation through excessive inputs of nutrients (nitrogen and phosphorus) and hazardous microbes, with an emphasis on the Chambers Creek and Clover Creek subbasins due to their 303(d) listing for fecal coliform.
- 6) The City should work with Pierce County Public Works and Utilities and the Tacoma-Pierce County Health Department to require sanitary sewer system connection when existing properties on septic systems are developed, redeveloped, or substantially modified.
- 7) The City should continue to provide general information to the public about the land use and human activities which impact water quality by encouraging educational curricula that provide students with first hand exposure to the issues and solutions, and through community activities, such as Adopt-A-Stream programs.
- 8) The City should encourage homeowners and property managers to maintain and enhance vegetation that supports water quality functions and to use non-chemical weed and pest control solutions and natural fertilizers.

c) Regulations

- 1) All shoreline uses and activities shall utilize BMPs to minimize any increase in surface runoff and to control, treat, and release surface water runoff so that receiving water quality and shore properties and features are not adversely affected during both construction and operation. Physical control measures include, but are not limited to, catch basins, settling ponds, oil/water separators, filtration systems, grassy swales, interceptor drains, and landscaped buffers. All types of BMPs require regular maintenance. BMPs are identified in the City's adopted stormwater manuals.
- 2) Structural stormwater facilities, such as vaults, pipes and catch basins, shall be located outside of the shoreline setback, unless the Shoreline Administrator determines that such location is not feasible.
- 3) Solid waste, liquid waste, and untreated effluent shall not be allowed to enter any bodies of water or to be discharged onto the land.
- 4) The direct release of oil and hazardous materials or chemicals onto the land or into water is prohibited. Equipment for the transportation, storage, handling or application of such materials shall be maintained in a safe and leak proof condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected as determined by the Shoreline Administrator.
- 5) All shoreline development shall comply with the applicable requirements of the City's adopted surface water design Manuals and all applicable City stormwater regulations.
- 6) All shoreline development shall implement applicable LID BMPs where feasible, pursuant to the standards contained in the adopted surface water design manuals and the most recent edition of the Low Impact Development Technical Guidance Manual for Puget Sound.

Chapter 4 Shoreline Use Provisions

A. Applicability

As required by the SMA, this SMP sets forth policies and regulations governing specific categories of uses and activities typically found in shoreline areas. The policies and regulations cover the following uses and activities: Agriculture, Aquaculture, Boating Facilities, Commercial Development (Primary and Accessory), Forest Practices, Industrial Development, Mining, Parking (as a primary use), Recreational Facilities, Residential Development, Scientific, Historical, Cultural, or Educational Uses, Signage, Transportation, and Utilities (Primary and Accessory). The policies and regulations provide the basic criteria for evaluating shoreline permit applications and exemptions and are used to implement the broader goals, policies and intent of the SMA and this Program.

This SMP contains limited provisions related to commercial or industrial development along the shorelines of American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek. These water bodies, with the exception of Waughop Lake and portions of Chambers Creek, are substantially developed with residential uses, with little undeveloped shoreline remaining. As such, access to the water is primarily related to recreation and residential uses and is not considered particularly important to commercial or industrial interests.

B. General Policies

- 1) When determining allowable uses and resolving use conflicts within the City's shoreline jurisdiction, the following should be applied in the order of preference listed below:
 - a. Reserve appropriate areas for protecting and restoring ecological functions to control pollution and prevent damage to the natural environment and public health.
 - b. Reserve shoreline areas for water-dependent and associated water related uses.
 - c. Reserve shoreline areas for other water-related and water-enjoyment uses that are compatible with ecological protection and restoration objectives.
 - d. Treat single-family residential uses as a preferred use and encourage the continuation and development of this use where it can occur without significant impact to ecological functions or displacement of water-dependent uses.
 - e. Limit non-water-oriented uses to those locations where the above-described uses are inappropriate or where non-water-oriented uses demonstrably contribute to the objectives of the SMA, including opportunities for ecological enhancements and public access improvements.

- 2) Proposed shoreline use should be consistent with the City's Comprehensive Plan. Conversely, upland uses on adjacent lands outside of immediate SMA jurisdiction (in accordance with RCW 90.58.340) should be consistent with the purpose and intent of this SMP.
- 3) All development and redevelopment activities within the City's shoreline jurisdiction should be designed to ensure public safety, enhance public access, protect existing shoreline and water views, and achieve no net loss of shoreline ecological functions.
- 4) The use of "Green Building" practices should be encouraged, and in some cases required where feasible, such as LID and those promulgated under the Leadership in Energy and Environmental Design (LEED) and Green Built programs, for new development within the shoreline jurisdiction.
- 5) Proposed shoreline uses should not infringe upon the rights of others or upon the rights of private ownership.
- 6) Shoreline uses, which enhance their specific areas or employ innovative features for purposes consistent with this program, should be encouraged.
- 7) Restoration in shoreline areas that have been degraded or diminished in ecological value and function because of past activities or catastrophic events should be encouraged.

C. Shoreline Use and Development Standards

Table I and Table II indicate the allowable uses by shoreline environment designation and the key standards that apply to development. The standards in this section are supplemental to standards in other portions of this SMP. See WAC 173-27-040, -044, and 045 for permit exemptions and when SMP permits do not apply.

1. Shoreline Use Table

Table I. Shoreline Uses

KEY

P³ = Permitted Use

C = Conditional Use

X = Prohibited

Shoreline uses are allowed only if permitted in both the shoreline environment designation and the underlying zone.

A use that occurs on both landward and waterward of the OHWM must meet the requirements of both the specific upland shoreline environment designation as well as the aquatic environment designation. Please also refer to specific use policies and regulations in Section 4 below.

SHORELINE USE	SHORELINE RESIDENTIAL	URBAN-STREAM PROTECTION	URBAN PARK	CONSERVANCY	NATURAL	AQUATIC
Agriculture	X	X	X	X	X	X
Aquaculture	C	C	C	C	X	C
Boating Facilities ¹						
Marinas (Public or Private)	C	X	C	X	X	C
Floating Homes and Live Aboards	X	X	X	X	X	X
Community Piers and Docks (Private Shared Use)	P	X	P	X	X	P
Public Pier	C	X	P	X	X	P
Boat Launch ⁴	C	X	C	X	X	C
Water-Oriented Commercial ²	C	P	C	C	X	C
Non-Water Oriented Commercial ²	C	P	C	C	X	X
Forest Practices	X	X	X	X	X	X
Industrial	X	X	X	X	X	X
Mining	X	X	X	X	X	X
Parking						
Parking (As a Primary Use)	X	X	X	X	X	X
Parking (As an Accessory Use)	P	P	P	X	X	X
Recreation ³						
Water-Dependent	P	P	P	P	P	P
Water-Enjoyment	P	P	P	P	P	P
Non-Water Oriented (As an Accessory Use)	P	P	P	P	C	X
Non-Water Oriented (As a Primary Use)	X	C	X	X	X	X

KEY

P³ = Permitted Use

C = Conditional Use

X = Prohibited

Shoreline uses are allowed only if permitted in both the shoreline environment designation and the underlying zone.

A use that occurs on both landward and waterward of the OHWM must meet the requirements of both the specific upland shoreline environment designation as well as the aquatic environment designation. Please also refer to specific use policies and regulations in Section 4 below.

SHORELINE USE

	SHORELINE RESIDENTIAL	URBAN-STREAM PROTECTION	URBAN PARK	CONSERVANCY	NATURAL	AQUATIC
Residential Structures						
Single-Family	P	P	C	C	C	X
Multi-Family	P	P	X	X	X	X
Scientific, Historical, Cultural, or Educational Uses	P	P	P	P	P	P
Transportation Facilities						
New Public Roads	P	C	C	C	C	C
Expansion of Existing Roads and New Driveways	P	P	P	P	C	C
Major Trails	C	C	C	C	X	C
Minor Trails	P	P	P	P	P	C
Utilities (Primary)						
Solid Waste Disposal or Transfer Sites	X	X	X	X	X	X
Other	C	C	C	C	C	C
Utilities (Secondary)						
All	P	P	P	P	C	C
Other Uses and Activities						
Restoration Activities	P	P	P	P	P	P

¹ See Chapter 5 (Shoreline Modifications) for specific types of in-water or over water structures/facilities allowed in each environment (e.g. piers, docks and floats). Please note, boat ramps and overwater structures are not allowed in the Urban - Stream Protection, Conservancy, and Natural environments.

² In the Shoreline Residential, Conservancy and Urban Park environments, only water-oriented commercial activities or limited accessory commercial uses are allowed, e.g. day care in Shoreline Residential and concessions in the Urban Park, per the use standards in Commercial Uses in this SMP and in the underlying zoning.

³ See permit requirements and exemptions in Chapter 5 and Chapter 6.

⁴ Launching rails are not considered boating facilities for purposes of this Section. Launching rails are not intended to serve more than four (4) residences. For launching rail provisions, see Chapter 5.

2. Shoreline Development Standards Table

Table II. Shoreline Development Standards

DEVELOPMENT STANDARD	SHORELINE RESIDENTIAL	URBAN - STREAM PROTECTION	URBAN PARK	CONSERVANCY	NATURAL	AQUATIC
Maximum Height ¹	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	N/A ³
Shoreline Setback or Buffer By Waterbody ^{2,4} Note: Setback requirements apply to all lakes and buffer requirements apply to streams. See definitions for more information. Along streams, an additional 8 ft. building setback shall apply to edge of the buffer per Critical Area standards.	65 ft. Setback (Note: May be reduced to 50 ft. with enhancement)	Clover Creek 65 ft. Buffer (Note: May be reduced to 50 ft. with enhancement)	100 ft. Setback for Urban Park properties on all lakes (Note: May be reduced to 75 ft. with enhancement) Clover Creek 65 ft. Buffer (Note: May be reduced to 50 ft. with enhancement.)	150 ft. Buffer (Note: No reduction allowed unless a variance is obtained)	150 ft. Buffer (Note: No reduction allowed unless a variance is obtained)	N/A ³

DEVELOPMENT STANDARD	SHORELINE RESIDENTIAL	URBAN - STREAM PROTECTION	URBAN PARK	CONSERVANCY	NATURAL	AQUATIC
Maximum Impervious Surface Coverage within shoreline jurisdiction ⁵	35% (R1 and R2) 50% (R3) 60% (R4) 50% (ARC) 60% (MR2) 70% (NC1) 80% (NC2) Provided an additional 10% of site coverage using pervious pavements shall be allowed	See adjacent column for Shoreline Residential	30%	20%	5%	N/A ³
Maximum Impervious Surface or Hard Surface Coverage within Shoreline Setback or Buffer. Note: Pervious pavements required where feasible	10% within 25 ft. of the OHWM, 20% within remaining portion of setback	See critical area buffer requirements	10% within 25 ft. of OHWM, 20% within remaining portion of setback for Lakes See critical area buffer requirements for stream	See critical area buffer requirements	See critical area buffer requirements	N/A ³
Minimum Lot Frontage	50 ft. (Lake Louise) 60 ft. (American Lake and Gravelly Lake) 70 ft. (Lake Steilacoom)	100 ft.	No further subdivision allowed	No further subdivision allowed	No further subdivision allowed	N/A ³

DEVELOPMENT STANDARD	SHORELINE RESIDENTIAL	URBAN - STREAM PROTECTION	URBAN PARK	CONSERVANCY	NATURAL	AQUATIC
Minimum Lot Size and Lot Density	Underlying zoning: R1 - 25,000 gsf R2 - 17,000 gsf R3 - 7,500 gsf R4 - 5,700 gsf	Underlying zoning: R1 - 25,000 gsf R2 - 17,000 gsf R3 - 7,500 gsf R4 - 5,700 gsf MF2 - 35 dua MF3 - 54 dua	No further subdivision is allowed	No further subdivision allowed	No further subdivision is allowed	N/A ³

¹ Height limits apply to all permanent and temporary structures. Development shall also be subject to the height limits established by the underlying zoning. The height limit shall not apply to television antennas, chimneys, flagpoles, public utilities, and similar appurtenances.

² Setbacks are measured landward, on a horizontal plane perpendicular to the shoreline. The standard setback applies unless the applicant implements voluntary enhancements as described in the following regulations and in Table III below. Where allowed, the setback may be reduced by the Shoreline Administrator to the minimum setback indicated in Table II. See zoning regulations for interior lot setbacks and other requirements that apply to specific zones. In the event of a conflict between a provision in this SMP and a provision in another part of the LMC, the requirement that provides the most protection to the shoreline management area shall be applied.

³ Not Applicable. Land-based standards do not apply in the Aquatic environment because only water dependent structures and development, such as docks, are allowed. Height of all structures shall be the minimum necessary for the proposed water dependent use.

⁴ Activities and improvements associated with ecological restoration or interpretation, water-oriented uses, and public access are not required to meet the minimum setback. However, where such development can be approved within the minimum setback, the placement of structures and hard surfaces shall be limited to the minimum necessary for the successful operation of the use. In no case shall parking be allowed within the minimum setback. Allowed structures include (but are not limited to) upland boathouses, gazebos, viewing platforms and decks.

⁵ Partial credit may be given for using pervious pavements for driveways, parking areas, walkways, and patios, based on City review of the specifications for the particular product used. In no case shall the credit be used to develop more than an additional 10% of the lot with the pervious pavement. Please note that impervious surface coverage may be further limited within the setback or buffer pursuant to the development standards in this Chapter.

3. Shoreline Setback and Buffer Regulations Administration

- a) The following standards shall apply for all proposals that request a reduction in the standard shoreline setback or buffer identified in Table II:
 - 1) The standard setback or buffer may be reduced down to the minimum setback or buffer identified in Table II for each eligible shoreline environment designation and water body when setback reduction impacts are mitigated using the options provided in Table III to achieve an equal or greater protection of lake or stream ecological functions. Any setback or buffer reduction requests beyond that allowed in Table II shall require a variance. Within the Conservancy and Natural environments, buffer

reductions shall only be approved as part of the variance process. Variance approval criteria are described in Section 6.D.

- 2) At least one (1) water-related action must be undertaken in order to achieve the full reduction allowed.
- 3) A maximum of ten (10) feet in cumulative reduction may be achieved under Upland Related Actions.
- 4) All property owners who obtain approval for a setback or buffer reduction must have prepared and agree to adhere to a Shoreline Vegetation Management Plan (SVMP) approved by the Shoreline Administrator and record the final approved setback or buffer and corresponding conditions in a Notice on Title. The Notice on Title shall include a statement regarding the existence of the SVMP and it shall be provided to the Shoreline Administrator.
- 5) The SVMP shall detail the required restoration of native vegetation. The SVMP shall consist of a mixture of trees, shrubs, and groundcover and be designed to improve shoreline ecological functions. The SVMP shall include appropriate limitations on the use of fertilizer, herbicides and pesticides as needed to protect lake water quality. The SVMP shall be completed by a qualified professional and include a monitoring and maintenance program that shall, at a minimum, include the following:
 - a. The goals and objectives for the mitigation plan;
 - b. A description of how required mitigation sequencing was implemented;
 - c. Mitigation performance standards, including standards for vegetation coverage and survival;
 - d. A monitoring plan that includes annual progress reports submitted to the Shoreline Administrator for a period of no less than two (2) growing seasons nor more than five (5) years sufficient to establish that performance standards have been met as determined by the Shoreline Administrator; and
 - e. A contingency plan.
- 6) Whenever the Shoreline Administrator determines through progress report review that mitigation performance standards have not been achieved, the property owner shall be required to institute corrective action, which shall also be subject to further monitoring as provided in this section.
- 7) The Shoreline Administrator may require a cash guarantee or other security in an amount sufficient to guarantee that all required mitigation measures will be completed in a manner that complies with conditions of approval and to guarantee satisfactory workmanship and materials for a period not to exceed five (5) years. The Shoreline Administrator shall establish the conditions of the security according to the nature of the proposed mitigation, maintenance or monitoring and the likelihood and expense of correcting mitigation or maintenance failures.
- 8) All costs associated with the mitigation/monitoring and planning including City expenses, shall be the responsibility of the applicant.
- 9) Impervious surface coverage within the approved lake setback shall be limited to ten percent (10%) within twenty-five (25) feet of the OHWM and twenty percent (20%) within the remaining portion of the applied setback. All development within buffers, including impervious surface, is subject to the requirements for Critical Areas contained in this SMP.

Table III. Shoreline Setback and Buffer Reduction Mechanisms

REDUCTION MECHANISM		REDUCTION ALLOWANCE
Water Related Actions		
1	Removal of an existing bulkhead which is located at, below, or within 5 ft. landward of the shoreline's OHWM and subsequent shoreline restoration to a natural or semi-natural state, including restoration of topography, beach/substrate (lake bottom) composition and stabilization of areas that have been disturbed by the bulkhead removal with native vegetation.	Bulkhead removal on at least 75% of frontage: 15 ft. 50% of frontage: 10 ft. 25% of frontage: 5 ft.
2	Restoration of natural shoreline conditions (e.g. no bulkhead or other unnatural shoreline feature such as upland impervious surfaces or other structural alterations allowed) within 10 ft. of the OHWM, including restoration of native vegetation. This reduction will only be granted if ecological functions would be improved relative to the existing condition.	10 ft.
3	Existing hard structural stabilization at or near the OHWM is removed and new hard structural shoreline stabilization measures are setback from the OHWM between two (2) ft. to four (4) ft. based on feasibility and existing conditions and are sloped a maximum angle of 3 vertical: 1 horizontal to provide dissipation of wave energy and increase the quality or quantity of nearshore shallow-water habitat. See Chapter 6 for stabilization measure types and additional standards. For purposes of this reduction mechanism only, need for the replacement structure is not required to be demonstrated as outlined in Chapter 5, Section (C)(2)(c), Shoreline Stabilization – Replacement and Repair.	5 ft.
4	Soft structural shoreline stabilization measures are installed waterward of the OHWM on a site currently containing only hard stabilization. Measures may include the use of gravels, cobbles, limited use of boulders in conjunction with other measures, and logs, as well as vegetation. The material shall be of a size and placed to remain stable and accommodate alteration from wind and boat-driven waves and shall be graded to a maximum slope of 1 vertical: 4 horizontal	5 ft.
Upland Related Actions		
5	Restoration of native vegetation (and preservation of existing trees and native vegetation) in at least 75% of the reduced (i.e. that portion remaining after reductions are applied) setback area. The remaining 25%	10 ft.

REDUCTION MECHANISM		REDUCTION ALLOWANCE
	of the setback area can be comprised of existing non-invasive, non-native vegetation. Up to 20 ft. of frontage may be used for improved shoreline access. Access areas shall be counted as part of the 25% non-native area and located to avoid areas of greater sensitivity and habitat value.	
6	Restoration of native vegetation (and preservation of existing trees and native vegetation) in at least 25% of the reduced setback area. Up to 20 ft. of frontage may be used for improved shoreline access. Access areas shall be counted as part of the 75% non-native area and located to avoid areas of greater sensitivity and habitat value.	5 ft.
7	Installation of biofiltration/infiltration mechanisms such as rain gardens, bioswales, created and/or enhanced wetlands, infiltration facilities, ponds, or other approved LID BMPs that treat the majority of surface water run-off from a site and meet or exceed adopted stormwater requirements. (Note: stormwater ponds serving more than one property should be located outside of shoreline jurisdiction if feasible and in accordance with mitigation sequencing).	5 ft.
8	Installation of at least 500 sq. ft. of "green" roof in accordance with the standards of the LEED Green Building Rating System.	5 ft.
9	Installation of a minimum of 1,000 sq. ft. of pervious material for driveway, parking, patio and/or road construction.	5 ft.
10	Preserving or restoring at least 20% of the total lot area outside of the setback or buffer area as native vegetation. No more than 20% of the total lot area can be lawn.	5 ft.

D. Specific Shoreline Use Policies and Regulations

1. Aquaculture

Aquaculture is the culture or farming of fish, shellfish, or other aquatic plants and animals. This activity is of statewide interest. Aquaculture is dependent on the use of the water area. When consistent with control of pollution and prevention of damage to the environment, it is a preferred use of the water area. The technology associated with some forms of aquaculture is still in its formative stages and experimental. Thus, this SMP recognizes the necessity of some latitude in the development of this use.

a) Policies

- 1) Aquaculture should not be permitted in areas where it would result in a net loss of ecological functions or significantly conflict with navigation and other water-dependent uses.
- 2) Aquaculture facilities should be designed and located to prevent the spread of disease to native aquatic life, significant ecological impacts caused by new nonnative species, or significant impacts on the shorelines' aesthetic qualities.

b) Regulations

- 1) Aquaculture development shall conform to applicable state and federal policies and regulations, provided they are consistent with the SMA and this SMP to ensure no net loss of ecological function.
- 2) The applicant shall demonstrate that the proposed facility meets the requirements of Policy 2 above.
- 3) Impacts to ecological functions shall be mitigated in accordance with the sequence described in Chapter 3, Section 4(C)3.

2. Boating Facilities

a) Applicability

Boating facilities, including community piers, public or community boat launches and marinas, shall be subject to the policies and regulations of this Section and those for specific types of facilities in Chapter 5, Section C(5). Boating facilities as defined in this SMP do not apply to residential moorage facilities serving four (4) or fewer single-family residences. Policies and regulations for all overwater structures and moorage facilities, including those serving four (4) or fewer single-family residences, are addressed in Chapter 5, Section C(5).

Accessory uses found in boating facilities may include fuel docks and storage, boating equipment sales and rental, wash-down facilities, fish cleaning stations, repair services, public launching, bait and tackle shops, potable water, waste disposal, administration, parking, groceries, restrooms and dry goods.

b) Policies

- 1) Boating facilities should be located and designed to ensure no net loss of ecological functions or other significant adverse impacts, and, where feasible, enhance degraded and/or scarce shoreline features.
- 2) Boating facilities should not unduly obstruct navigable waters and should consider adverse effects to recreational opportunities such as fishing, pleasure boating, swimming, beach walking, picnicking, and shoreline viewing.
- 3) Boating facilities should be located in areas of low biological productivity as documented in a report prepared by a qualified professional at time of application.
- 4) Boating facilities should be located and designed so their structures and operations will be aesthetically compatible with the neighboring area and will not unreasonably impair shoreline views. However, the need to protect and restore functions and to provide for water-dependent uses carries higher priority than the protection of views.
- 5) Limits should be put on the size of community docks to address the potential for impacts on neighboring properties.
- 6) Accessory uses at boating facilities should be limited to water-oriented uses, or uses that provide physical and/or visual shoreline access for substantial numbers of the general public. Non-water-dependent accessory uses should be located outside of shoreline jurisdiction or outside of the shoreline setback.

c) Regulations

- 1) Location Standards.
 - a. New boating facilities shall not be permitted in areas where dredging will be required or where impacts to shoreline ecological functions and processes cannot be mitigated.
 - b. New boating facilities shall not significantly affect the rights of navigation on the water of the state.
 - c. Boating facilities shall not be located where their development would reduce the quantity or quality of critical fish and wildlife habitat areas as defined in LMC Section 14.154.020 (Critical Areas and Natural Resource Lands Regulations, Ordinance No.362 3(part), 2004) or where significant ecological impacts would occur.
 - d. Boating facilities shall be located and designed with the minimum necessary shoreline stabilization to protect facilities, users, and watercraft from floods or destructive storms.
 - e. Boating facilities shall not be located where it would be incompatible with the need to protect the public health, safety, and welfare.
 - f. Boating facilities shall be located only where adequate utility services are available, or where they

can be provided concurrent with the development.

2) Facility Design.

- a. All boating facilities shall be designed to avoid and minimize impacts. All unavoidable impacts must be mitigated.
- b. All boating facilities shall be the minimum size necessary to accommodate the anticipated demand. Specifically, the amount of overwater cover, the size, and number of in-water structures, the waterward length of the facility, and the extent of any necessary associated shoreline stabilization or modification shall be minimized. Boating facilities shall meet all applicable Shoreline Modification regulations in Chapter 5. Community and public moorage facilities shall meet the size and usage requirements established in Chapter 5, Section C(5).

3) Site Design and Operation.

- a. Boating facilities shall be designed so that lawfully existing or planned public shoreline access is not blocked, obstructed, nor made dangerous.
- b. Boating facilities shall provide physical and/or visual public or community access for as many water-oriented recreational uses as possible, commensurate with the scale of the proposal, including, but not limited to, physical and visual access to waterbodies, public piers or fishing platforms.
- c. Upland boat storage may be allowed within shoreline jurisdiction in the Urban Park and Shoreline Residential environments, provided impervious surface limitations and other standards are met, mitigation sequencing is followed and impacts can be mitigated to achieve no net loss.
- d. Accessory uses at boating facilities shall be located outside of shoreline jurisdiction where feasible and shall be limited to water-oriented uses or uses that support physical or visual shoreline access for substantial numbers of the general public. Accessory development may include, but is not limited to, parking, non-hazardous waste storage and treatment, stormwater management facilities, and utilities where necessary to support the water-oriented use.
- e. The applicant shall comply with all state agency policies and regulations, including all applicable health, safety, and welfare requirements associated with the primary or accessory use.
- f. The streets serving the proposed facility must handle the traffic generated by such a facility safely and conveniently.
- g. The facility must be limited to day moorage only. No live-aboards or floating homes are allowed.
- h. Covered moorage is allowed only in the Shoreline Residential environment by a CUP. Boat lift canopies are a permitted use in the Shoreline Residential environment. See Chapter 5, Section (C)(5)(d)(8) and (9) for applicable standards.

- i. The perimeter of parking, upland boat storage, and other storage areas shall be landscaped to provide a visual and noise buffer between adjoining dissimilar uses or scenic areas.
 - j. All facilities must have provisions available for cleanup of accidental contaminants and spills
 - k. Public access shall be required, pursuant to the requirements and exemptions in the Public Access regulations contained in Chapter 3.
- 4) Boat Launch.
- a. Location Standards - Boat launches shall be sited so that they do not significantly damage fish and wildlife habitats and shall not occur in areas with native emergent vegetation. Native upland vegetation removal shall be minimized to the greatest extent feasible. All facilities shall be sited and designed per required mitigation sequencing.
 - b. Public launch ramps shall be located only on stable shorelines where feasible and where water depths are adequate to eliminate or minimize the need for dredging, filling, beach enhancement, or other maintenance activities.
 - c. The design shall comply with all regulations as stipulated by state and federal agencies, affected tribes, or other agencies with jurisdiction.
 - d. The applicant shall demonstrate that the proposed length of a boat launch is the minimum necessary to launch the intended craft safely. In no case shall the ramp extend beyond the point where the water depth is eight (8) feet below the OHWM, unless the Shoreline Administrator determines that a greater depth is needed for a public boat launch facility.
 - e. Design Standards.
 - i. Boat launches for non-motorized boats shall be constructed of gravel or other similar natural material.
 - ii. Preferred launch ramp designs for motorized boats, in order of priority, are:
 - a. Open grid designs with minimum coverage of lake substrate.
 - b. Seasonal ramps that can be removed and stored upland.
 - c. Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in shoreline profile.
 - d. Standard concrete pads.

3. Commercial Development

a) Applicability

Commercial development means those uses that are involved in wholesale, retail, service, and business trade. Uses and activities associated with commercial development that are identified as separate uses in this program include Agriculture, Aquaculture, Mining, Industry, Boating Facilities, Transportation Facilities, and Utilities. Piers and docks, bulkheads, shoreline stabilization, flood protection, and other shoreline modifications are sometimes associated with commercial development and are subject to those shoreline modification regulations in Chapter 5 in addition to the standards for commercial development established herein.

b) Policies

- 1) Commercial development should be limited in the shoreline area based on the residential and recreational nature of the existing shoreline.
- 2) Water-oriented commercial developments should be preferred over non-water-oriented commercial uses.
- 3) Commercial developments should be encouraged to incorporate LID BMPs where feasible into new and existing projects.

c) Regulations

- 1) New commercial uses shall be prohibited within all shoreline areas except where the underlying zoning permits such uses, and one or more of the criteria identified below are met:
 - a. The use is water-oriented;
 - b. The use is an accessory use to a permitted recreational use or facility within the Urban Park or Conservancy environment. Examples include, but are not limited to:
 - i. Concession stands in City Parks,
 - ii. Booths associated with festivals sponsored by the City, and private parties or receptions and banquets, and
 - iii. Boat rentals.
 - c. The use is a home occupation within the Shoreline Residential environment provided they meet the requirements of LMC Sections 18A.70.200 and 18A.70.250 pertaining to Home Occupations.
 - d. The site is physically separated from the shoreline by another property or public right of way.
 - e. The use is part of a mixed-use project that includes water-dependent uses and provides a significant public benefit with respect to the SMA's objectives, such as providing public access and ecological

restoration.

- f. Navigability is severely limited at the proposed site, and the proposed commercial use provides significant public benefit with respect to the SMA's objectives, such as providing public access and ecological restoration; or
 - g. The use is non-water oriented and replaces an existing non-water oriented use in an existing commercial building. For purposes of this regulation, replace means the footprint and general intensity of the commercial uses are the same.
- 2) Water oriented uses shall incorporate design and operational elements that clearly demonstrate that they meet the definition of water dependent, water related or water oriented uses.
 - 3) Commercial uses shall provide public access as required in Chapter 3, Section B(5) and ecological restoration where feasible and shall not negatively impact existing navigation, recreation or public access.
 - 4) All commercial loading and service areas shall be located or screened to minimize adverse impacts, including visual impacts, to the shoreline environment.
 - 5) LID BMPs shall be incorporated into new development where feasible, pursuant to the City's adopted Surface Water Design Manual and the most recent edition of the Low Impact Development Technical Guidance Manual for Puget Sound.
 - 6) Commercial development and accessory uses must conform to the setback and height standards established in Table II.

4. Parking

a) Applicability

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

b) Policies

- 1) Parking in shoreline areas should be minimized
- 2) Parking facilities in shoreline areas should be located and designed to minimize adverse impacts including impacts related to stormwater runoff, water quality, visual qualities, public access, and vegetation and habitat maintenance, and to result in no loss of ecological functions.
- 3) Parking in shoreline areas should not restrict access to the site by necessary public safety vehicles, utility vehicles, or other vehicles requiring access to shoreline properties.

c) Regulations

- 1) Parking as a primary use is prohibited in shoreline jurisdiction.
- 2) Parking in shoreline areas must directly serve a permitted shoreline use.
- 3) Parking facilities shall provide adequate provisions to control surface water runoff to prevent it from contaminating water bodies.
- 4) Parking facilities serving individual buildings on the shoreline shall be located landward from the principal building being served, except when the parking facility is within or beneath the structure and adequately screened or in cases when an alternate orientation would have less adverse impact on the shoreline.
- 5) Exterior parking facilities shall be designed and landscaped to minimize adverse impacts upon adjacent shoreline and abutting properties. Exterior parking facilities for nonresidential uses shall be landscaped to provide an effective “full-screen” within three (3) years of project completion when viewed from adjacent areas within shoreline jurisdiction.
- 6) New and reconstructed parking areas within the Urban Park shoreline environment designation shall utilize LID BMPs where feasible in accordance with the City’s adopted Surface Water Design Manual and the most recent edition of the Low Impact Development Technical Guidance Manual for Puget Sound.

5. Recreational Development

a) Applicability

Recreational uses include passive activities, such as walking, viewing, and fishing. Recreational development also includes facilities for active uses, such as swimming, boating, and other outdoor recreation uses. This section applies to both public and private shoreline recreational facilities (excluding private residences). Commercial shoreline recreational facilities must also meet the requirements for Commercial Development.

b) Policies

- 1) Primary recreational uses in the shoreline jurisdiction should be limited to water-oriented uses. Non-water-oriented recreational facilities may be allowed as an accessory use and in limited circumstances where they do not displace water oriented uses, for example, where visual access is incorporated if feasible and physical access is not possible.
- 2) The coordination of local, state, and federal recreation planning should be encouraged. Shoreline recreational developments should be consistent with the City’s Comprehensive Park and Recreation Plan.
- 3) Recreational developments should be designed to preserve, enhance, or create scenic views and vistas.
- 4) The use of publicly owned lands for public access and development of recreational opportunities

should be encouraged.

- 5) Priority for land acquisition should be given to open space that provides wildlife habitat and offers opportunities for education and interpretation.
- 6) Shoreline areas with a potential for providing recreation or public access opportunities should be identified and acquired by lease or purchase, or through partnerships with nonprofit and service organizations, and incorporated into the park and open space system.
- 7) Links between existing and future shoreline parks, recreation areas, and public access points should be created with a non-motorized trail system using existing rights-of-way or through acquisition of easements and/or land.
- 8) Recreational activities should be designed to avoid conflict with private property rights, and to minimize and mitigate negative impacts on adjoining property.
- 9) Public access should not contribute to a net loss of shoreline ecological functions.

c) Regulations

- 1) All structures associated with a recreational use, except water dependent structures, such as docks and boardwalks and limited water enjoyment structures such as open viewing platforms and benches, shall maintain a standard setback from the OHWM per Table II. However, existing structures may be replaced in their current location and configuration to the extent allowed by the Nonconforming Development provisions of Chapter 6, Section F, and state and federal agencies with jurisdiction. Any further setback reduction shall require approval of a setback reduction pursuant to Table II in this Chapter or a shoreline variance.
- 2) Private and public recreation areas shall protect existing native vegetation in the shoreline area and restore vegetation impacted by development activities. Recreational use and development shall result in no net loss of shoreline ecological functions. Mitigation shall be provided as necessary to meet this requirement. Failure to meet this standard will result in permit denial. The City may request necessary studies by qualified professionals to determine compliance with this standard.
- 3) Water-dependent or water-related activities such as swimming, boating, and fishing, and activities that benefit from waterfront scenery, such as picnicking, hiking and bicycling, shall be emphasized in planning public and private (excluding residential) noncommercial recreation sites in shoreline areas.
- 4) All recreational developments shall make adequate provisions for:
 - a. Non-motorized and pedestrian access;
 - b. The prevention of trespass onto adjacent properties, including, but not limited to, landscaping and fencing;
 - c. Protection and restoration of environmentally sensitive areas and shoreline processes and functions;

- d. Signs indicating the public's right of access to shoreline areas, installed and maintained in conspicuous locations at the point of access and the entrance; and
 - e. Buffering of such development from adjacent private property or natural areas.
- 5) In approving shoreline recreational developments, the City shall ensure that the development will maintain, enhance, or restore desirable shoreline features.
 - 6) Swimming areas shall be separated from boat launch areas.
 - 7) The construction of swimming facilities, piers, moorages, floats, and launching facilities waterward of the OHWM shall be governed by the regulations relating to overwater structure construction in the Shoreline Modifications Section of this SMP.
 - 8) Fragile and unique shoreline areas with valuable ecological functions, such as wildlife habitats, shall be used only for non-intensive recreation activities that do not involve the construction of structures.
 - 9) Recreation developments such as golf courses and playfields that require periodic use of fertilizers, pesticides or other chemicals, or that support high-intensity activities as a primary use, such as sporting events, shall be located outside of shoreline jurisdiction.
 - 10) Proposals for new or expanded recreational development shall include provisions for public access to the shoreline, subject to the requirements and exemptions contained in Chapter 3, Subsection B(5)(c).

6. Residential Development

a) Applicability

Residential development means construction of one or more buildings or structures, or subdivision of land to provide a place of abode for human beings. Such development includes multi-family and single-family dwellings together with accessory uses and structures normally applicable to residential uses located landward of the OHWM, including, but not limited to, swimming pools, garages, sheds, decks, patios and fences.

Residential development is preferred use under this SMP and is allowed where it can be accommodated without significant shoreline impacts. Residential development is prohibited in the Aquatic environment, and single-family residential development is a conditional use in the Natural, Urban Park, and Conservancy environments. Single-family and multi-family development is further limited by the underlying zoning.

b) Policies

- 1) Residential development should be permitted only where there are adequate provisions for utilities, circulation, and access.
- 2) New development should provide adequate setbacks and natural buffers from the water and ample open space among structures to protect natural features, preserve views and minimize use conflicts.

- 3) The City should provide development incentives, including reduced shoreline setbacks, to encourage the protection, enhancement, and restoration of high functioning buffers and natural or semi-natural shorelines.
- 4) Residential development should be designed to preserve shoreline aesthetic characteristics, views, and minimize physical impacts to shoreline ecological functions.
- 5) Residential development should be designed to preserve existing shoreline vegetation, control erosion, protect water quality, and utilize LID BMPs where feasible.
- 6) The City should encourage the use of joint-use piers and docks in lieu of individual piers and docks for each waterfront lot to protect the ecological functions of the lake.
- 7) The City should encourage the use of alternative paving products for walkways, driveways, and patios, such as pervious pavers, as a mechanism for reducing impervious surfaces and surface water runoff.
- 8) At a minimum, development should achieve no net loss of ecological functions necessary to sustain shoreline natural resources, even for exempt development.

c) Regulations

- 1) Residential development is a preferred use where it can be accommodated without significant impacts to the shoreline and shall be permitted in shoreline jurisdiction subject to the policies and regulations for the specific shoreline environment designation (see Chapter 4, Table II), underlying zoning regulations, and the general regulations in Chapter 3 of this SMP.
- 2) Structures or other development accessory to residential uses are permitted in shoreline jurisdiction, if allowed under all other applicable standards in this SMP and subject to the provisions of the City's zoning code.
- 3) All additions to residential structures must comply with all standards in this SMP, including required shoreline setbacks established in Chapter 4, Table II.
- 4) Nonconforming residential structures that are repaired, modified, replaced or enlarged are subject to the requirements in Chapter 6, Section F(2) (Administration - Nonconforming Use and Development Standards).
- 5) Accessory uses and appurtenant structures not specifically addressed in the SMP shall be subject to the same regulations as primary residences, including setbacks, with the exception of water-oriented accessory structures that comply with the impervious surface limits identified in Table II of this Chapter. Water-oriented structures allowed in the setback include, but are not limited to, boathouses, gazebos, viewing platforms and decks.
- 6) In order to maintain visual access to the waterfront, all fences except those located next to creeks shall be set back a minimum of fifteen (15) feet from the OHWM. Fences located next to creeks must be

placed above the creek's flood limit level.

- 7) To protect views and vistas maximum height limits have been established for each shoreline environment designation as indicated in Chapter 4, Table II.
- 8) The stormwater runoff for all new or expanded pavements or other impervious surfaces shall be directed to infiltration systems and other LID BMPs shall be incorporated into new development where feasible, in accordance with the City's adopted Surface Water Design Manual and the most recent edition of the Low Impact Development Technical Guidance Manual for Puget Sound.
- 9) LID stormwater facilities, such as swales and infiltration areas, may be located within the required shoreline setback area at the discretion of the Shoreline Administrator if no mature trees are removed.
- 10) Residential development, including land subdivision, shall result in no net loss of shoreline ecological functions. This includes meeting the no net loss standard at full build out of a subdivision or other development. Mitigation shall be provided as necessary to meet this requirement. Failure to meet this standard will result in permit denial. The City may request necessary studies by qualified professionals to determine compliance with this standard.
- 11) For the purposes of this section and WAC 173-27-040(2)(g), the following shall be considered a "normal appurtenance" to a single-family residence. Not all normal appurtenances are considered water oriented:
 - a. Garages
 - b. Decks
 - c. Driveways and parking areas
 - d. Utilities
 - e. Fences
 - f. Landscaping
 - g. Pathways, walkways and stairways
 - h. Swimming pool and spa
 - i. Flagpole
 - j. Shed up to two hundred (200) square feet
 - k. Children's play equipment
 - l. Fire Pit
 - m. Sports court
 - n. Installation of a septic tank, drain field and grading which does not exceed two hundred fifty (250) cubic yards and which does not involve the placement of fill in any wetland or waterward of the OHWM (when permitted by Tacoma Pierce County Health Department, Pierce County Sewer Utility, and City policies and regulations).

7. Signs

Regulations: See LMC Chapter 18A.100

The following types of signs may be allowed in all shoreline environment designations:

- a. Water navigational signs and highway signs necessary for operation, safety, and direction.

- b. Public information signs directly relating to a shoreline use or activity.
- c. Off-premise, freestanding signs for community identification, information, or directional purposes.
- d. Site and institutional flags or temporary decorations customary for special holidays and similar events of a public nature.

8. Trails

a) Applicability

Trails serve as both recreational facilities and transportation facilities. Trails are classified into two types: minor trails and major trails. Major trails are paved and they allow for simultaneous use by both pedestrians and bicycles. Major trails also frequently provide connections between local points of interest and a larger regional access network. Due to their use of pavement and the necessity of complying with ADA design requirements, major trails are generally not appropriate for locations with steep terrain or environmentally sensitive areas. Minor trails, on the other hand, are designed for local access and usually have less improved right-of-way than major trails. Minor trails are typically unpaved and surfaced with either gravel or bare dirt, although they may have sections where pervious pavement is used. Due to their narrow right-of-way, minor trails usually do not support simultaneous use by pedestrians and bicycles.

b) Policies

- 1) Normal operation and normal maintenance and repair of all trails in shoreline jurisdiction should be exempt from the Substantial Development Permit requirements, subject to the specific provisions identified in Chapter 6 Section C(1).
- 2) Trail location, design, and construction should adhere to mitigation sequencing and no net loss requirements.

c) Regulations

- 1) Unless approved as a major trail, trails shall be no greater than ten (10) feet in total improved width, which includes eight (8) feet of surface and one (1) foot shoulders. Not including landscaping, no more than eight (8) feet of improved surface is preferable in most cases.
- 2) Major trails shall be the minimum width necessary to accommodate the proposed use safely and in no case shall they be more than eighteen (18) feet in total improved width, which includes fourteen (14) feet of surfaced trail and two (2) foot shoulders.
- 3) Gravel, woodchips, or pervious pavement shall be used for public access within the shoreline management area unless the Shoreline Administrator determines that such use is not in the public interest because of safety, durability, aesthetic, or functionality concerns.
- 4) Trails shall be placed at least twenty-five (25) feet from the OHWM, except for bridges, limited spurs to physical access points and overlooks comprising no more than ten percent (10%) of the overall

lineal length of the proposed trail. The Shoreline Administrator shall use the variance process and criteria for evaluating a proposed reduction in the twenty-five (25) foot setback for trails parallel to the water, which exceed ten percent (10%) of the total linear length of the proposed trail.

- 5) Landscaping shall be native and drought tolerant or site appropriate.
- 6) Enhancement of shoreline functions, including native plantings, shall be incorporated into trail designs as mitigation for development impacts where necessary and where a clear benefit can be demonstrated.
- 7) Trails shall be subject to other specific conditions as described in the applicable trail or parks plan.

9. Transportation Facilities

a) Applicability

Transportation facilities are those structures and developments that aid in land, air, and water surface movement of people, goods, and services. They include roads and highways, bridges, heliports, and other related facilities.

In the City, transportation facilities account for a limited percentage of the shoreline land inventory. However, the impact of these facilities on shorelines can be substantial.

b) Policies

- 1) Normal operation, and normal maintenance and repair of all transportation facilities in the shoreline jurisdiction should be exempt from Substantial Development Permit requirements, subject to the specific provisions identified in Chapter 6 Section C(1).
- 2) New road construction in the shoreline jurisdiction should be minimized, and such construction outside of the Shoreline Residential environment should be allowed by conditional use only when related to and necessary for the support of permitted shoreline activities.
- 3) Expansion of existing roadways in the shoreline jurisdiction should be allowed if such facilities are found to be in the public interest, as determined jointly by the City Engineer and Shoreline Administrator.
- 4) Joint use of transportation corridors within the shoreline jurisdiction for roads, utilities, and motorized and non-motorized forms of transportation should be encouraged.

c) Regulations

- 1) New road construction in shoreline jurisdiction shall be minimized and allowed only when related to, and necessary for, the support of permitted shoreline activities or found to be within the public interest.
- 2) New stream crossings associated with transportation uses shall be avoided if possible and minimized in number and total area impacts (e.g. perpendicular crossings). Culverts and bridges shall be designed to allow passage of adult and juvenile salmon pursuant to DFW Fish Passage Guidelines and

accommodate the flow of water, sediment, and woody debris during the 100-year return storm event. Bridge abutments shall be located outside of floodplains and CMZs if feasible.

- 3) Transportation facility development shall result in no net loss of shoreline ecological functions and shall not affect existing or planned water dependent uses. Mitigation shall be provided as necessary to meet this requirement. Failure to meet this standard will result in permit denial.
- 4) New roads and expansion of existing roadways within the shoreline jurisdiction shall be allowed only when the proponent demonstrates that:
 - a. No alternative route is feasible; and
 - b. The roadway is constructed and maintained to cause the least possible adverse impact on the land and water environment.
- 5) Transportation and primary utility facilities shall be required to make joint use of rights of- way, and to consolidate crossings of water bodies to minimize adverse impacts to the shoreline.
- 6) Developers of roads must be able to demonstrate that efforts have been made to coordinate with existing land use plans including the SMP and the City's Comprehensive Plan.
- 7) All debris and other waste materials from roadway construction shall be disposed of in such a way as to prevent their entry into any water body.
- 8) Road designs must provide safe pedestrian and non-motorized vehicular crossings where public access to shorelines is intended.
- 9) Streets within shoreline jurisdiction shall be designed with the minimum pavement area required. Gravel and more innovative materials shall be used where feasible for pathways and road shoulders to minimize the amount of impermeable surfaces and help to maintain a more natural appearance.
- 10) The City shall give preference to mechanical means for roadside brush control on roads in shoreline jurisdiction rather than the use of herbicides.

10. Utilities (Primary)

a) Applicability

Utilities are services and facilities that produce, transmit, store, process, or dispose of electric power, gas, water, sewage, communications and the like. Utilities in this SMP are divided into primary and secondary based on type and scale. The provisions of this section apply to primary utility uses and activities such as solid waste handling and disposal, regional water transmission lines and storage facilities, sewage treatment facilities and interceptors, water or sewer pump stations, power generating or high voltage transmission facilities, gas pipelines and storage facilities and regional stormwater treatment facilities.

b) Policies

- 1) New primary utilities should be located outside of shoreline jurisdiction unless they are water oriented, no other feasible option exists, and should utilize existing transportation and utility sites, rights-of-way and corridors where allowed, rather than creating new corridors. Joint use of rights-of- way and corridors should be encouraged.
- 2) Solid waste disposal activities and facilities should be prohibited in shoreline areas.
- 3) Primary utilities should avoid locating in environmentally sensitive areas unless no feasible alternatives exist.
- 4) Primary utility facilities and corridors should be located to protect scenic views if they must be placed in a shoreline area, preferably underground or designed to minimize impacts on the aesthetic qualities of the shoreline area if possible.

c) Regulations

- 1) Primary utilities shall be located outside of SMA jurisdiction unless no other feasible option exists.
- 2) Primary utilities shall be located landward of OHWM unless such location is not feasible or would result in potentially greater environmental impacts.
- 3) Primary utility facilities shall avoid disturbance of unique and fragile areas, as well as wildlife spawning, nesting and rearing areas. Utility facility design, location, development, and maintenance shall result in no net loss of shoreline ecological functions. Mitigation shall be provided as necessary to meet this requirement. Failure to meet this standard will result in permit denial.
- 4) Through coordination with local government agencies, utility development shall provide for compatible, multiple uses of sites and rights-of-way. Such uses include shoreline access points, trail systems and other forms of recreation and transportation, providing such uses will not unduly interfere with utility operations, endanger public health and safety, or create a significant and disproportionate liability for the owner.
- 5) Utility lines shall utilize existing rights-of-way, corridors, and/or bridge crossings whenever possible and shall avoid duplication and construction of new corridors in all shoreline areas. Proposals for new corridors or water crossings must fully substantiate the infeasibility of existing routes.
- 6) Solid waste disposal sites and facilities are prohibited in all shoreline environment designations.
- 7) Where major facilities must be placed in a shoreline area, the location and design shall be chosen so as not to destroy or obstruct scenic views.
- 8) To the greatest extent feasible, primary utility development shall provide screening of facilities from water bodies and adjacent properties. Screening, including landscaping and fencing, shall be designed to constitute a dense “full screen,” where feasible.

- 9) Clearing of vegetation for the installation or maintenance of utilities shall be kept to a minimum and, upon project completion; any disturbed areas shall be restored to their pre-project condition.
- 10) The City shall hold public meetings prior to the issuance of a substantial development permit for a major primary utility project in accordance with the administrative procedures outlined in this SMP to allow for the greatest amount of public input to help guide utility-related decisions.

11. Utilities (Secondary)

a) Applicability

Secondary utilities are typically distribution services connected directly to the uses along the shoreline. For example, power distribution, telephone, cable, water mains and distribution lines, sewer collectors and side sewer stubs, stormwater collection and conveyance, are all considered as utilities accessory to shoreline uses. They are covered in this section because they concern all types of development and have the potential of affecting the ecological condition and visual quality of the shoreline and its waters. On-site accessory utilities that only serve the permitted shoreline use (e.g. sewer connection) are considered part of the primary use. The Shoreline Administrator shall have the authority to determine when a facility is a Primary or Secondary Utility based on the guidance provided in the SMP.

b) Policies

- 1) Utilities necessary to serve shoreline uses should be properly sited and installed to protect the shoreline and water from contamination and degradation.
- 2) Secondary utility facilities and right-of-ways should be located outside of the shoreline area to the extent possible. Utility lines should be placed underground if possible when a shoreline location is required.
- 3) Utility facilities should be designed and located in a manner, which preserves the natural landscape and shoreline ecology, and minimizes conflicts with present and planned land uses.

c) Regulations

- 1) Through coordination with local government agencies, utility developments shall provide for compatible multiple uses of sites and rights-of-way. Such uses include shoreline access points, trail systems, and other forms of recreation and transportation, providing such uses will not unduly interfere with utility operations, or endanger public health and safety.
- 2) In shoreline areas, secondary utilities shall be placed underground unless demonstrated to be infeasible. Further, such lines shall utilize existing rights-of-way and existing corridors whenever possible.
- 3) Utility facilities shall be located and designed to avoid destruction of, or damage to, important wildlife areas, and other unique and fragile areas. Utility facility development shall result in no net loss of shoreline ecological functions. Mitigation shall be provided as necessary to meet this requirement.

Failure to meet this standard will result in permit denial.

- 4) Clearing for the installation or maintenance of utilities shall be kept to a minimum, and upon project completion, any disturbed area shall be restored, to the greatest extent feasible, to pre-project conditions, including replanting with native species, or other species as approved by the Shoreline Administrator, and maintenance care. If the previous condition is identified as being undesirable for shoreline function, then landscaping and other improvements shall be undertaken.
- 5) The location and construction of outfalls shall comply with all appropriate federal, state, county and city regulations.
- 6) The City shall maintain, enhance, and restore public natural drainage systems in accordance with all applicable policies and regulations to protect water quality, reduce flooding, reduce public costs, and prevent associated environmental degradation for a no net loss of shoreline ecological functions.
- 7) New utility lines including electricity, communications, and fuel lines shall be located underground, where feasible. Existing above ground lines shall be moved underground when properties are redeveloped or in conjunction with major system upgrades or replacements where feasible.
- 8) Utility development shall include public access to the shoreline, trail systems, and other forms of recreation, providing such uses will not unduly interfere with utility operations, endanger the public health, safety, and welfare, or create a significant and disproportionate liability for the owner.
- 9) Proposals for new utility corridors shall demonstrate the infeasibility of existing routes.

Chapter 5 Shoreline Modification Provisions

A. Introduction and Applicability

Shoreline modifications are those structures and actions that modify the physical configuration or qualities of the shoreline area, particularly at the point where land and water meet. Shoreline modifications include, but are not limited to, structures such as bulkheads, docks, piers, and floats, and actions such as clearing, grading and dredging. Shoreline modifications are, by definition, undertaken in support of or in preparation for a permitted shoreline use. A single use may require several different shoreline modifications.

Shoreline modification policies and regulations are intended to assure, at a minimum, no net loss of ecological functions necessary to sustain shoreline natural resources and to prevent, reduce and mitigate the negative environmental impacts of proposed shoreline modifications consistent with the goals of the SMA. A proposed development must meet all of the regulations for both applicable uses and activities as well as the general and environment designation regulations.

This chapter has been divided into four sections: Shoreline Stabilization, Dredging and Disposal, Fill, and Overwater Structures and Launching Facilities.

B. Table of Permitted Shoreline Modifications

The shoreline modification table below determines whether a specific shoreline modification is allowed within each of the shoreline environment designations. See the standards following the table for a full explanation of structures and actions and required conditions.

Table IV. Permitted Shoreline Modifications

P = Permitted Use
 C = May be Permitted as a Conditional Use
 X = Prohibited, Not Eligible for a Variance or CUP
 N/A = Not Applicable

	Shoreline Residential	Urban - Stream Protection	Urban Park	Conservancy	Natural	Aquatic	
SHORELINE MODIFICATIONS							
SHORELINE STABILIZATION							
Beach Restoration and Enhancement	P	X	P	X	C	See adjacent upland shoreline environment designation	
Soil Bio-engineering	P	P	P	P	P		
Structural Stabilization	P	X	C	X	X		
Breakwaters, Jetties, and Groins	X	X	X	X	X		
Clearing and Grading	P	P ¹	P ¹	P ¹	C ¹		
Dredging and Disposal	X	X	X	X	X		
Dredging ²	C	C	C	C	C		
FILL							
Fill Upland of OHWM	P	P ¹	P ¹	C ¹	X		
Fill Waterward of OHWM ²	C	C	C	X	C		
OVERWATER AND IN-WATER STRUCTURES⁴							
Recreational Float	P	X	P	X	X		
Overwater Boathouse ³	X	X	X	X	X		
Single / Joint Pier and Dock	P	X	P	X	X		
Moorage Piles and Mooring Buoys	P	X	P	X	X		
Private Community Dock	P	X	P	X	X		
Public Pier/Dock	C	X	P	X	X		
Boat Launch	C	X	C	X	X		
Launching Rails	C	X	X	X	X		
Boat Lifts	P	X	X	X	X		
Boat Lift Canopies	P	X	X	X	X		
Moorage Covers (Open Sides, Structural Roof)	C	X	X	X	X		
In-Stream Structures (e.g. Dams and Weirs)	C	C	C	C	C		

¹The critical area provisions of LMC Title 14 as incorporated into this SMP shall apply within designated critical areas and buffers (such as streams and wetlands). Critical area requirements may further restrict this activity and other development activities in portions of the shoreline management area. Please see LMC Title 14 and Chapter 3, Section (B)(3) for more information.

²Dredging and fill waterward of the OHWM occur in the Aquatic shoreline environment designation by definition, but are regulated based on the adjacent upland shoreline environment designation. In the shoreline environment designations where they are allowed, fill waterward of the OHWM and dredging are only permitted in limited situations. See Chapter 5, Section C(3) and (4) for additional restrictions and requirements. Small scale beach restoration utilizing up to or less than twenty-five (25) cubic yards of material is permitted waterward of the OHWM without a CUP. See Chapter 5, Section C(4)(c)(2).

³Boathouses landward of the OHWM no greater than twelve (12) feet in height are allowed in shoreline setbacks subject to impervious surface limits and other restrictions in this SMP.

⁴See permit requirements and exemptions per Section C.5 (b) of Chapter 5 and Chapter 6.

C. Policies and Regulations

1. General Policies and Regulations

a) Applicability

The following provisions apply to all shoreline modifications except for those listed in WAC 173-27-044 whether such proposal addresses a single property or multiple properties. Additional requirements as contained in other Chapters of this SMP apply. Where a general standard, environmental standard or use standard conflicts with the provisions contained in this chapter, the more restrictive shall apply.

b) Policies

- 1) The adverse effects of shoreline modifications should be reduced, as much as possible, and shoreline modifications should be limited in number and extent.
- 2) The Shoreline Administrator should take steps to assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological function by preventing unnecessary shoreline modifications by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions, and by requiring mitigation of identified impacts resulting from shoreline modifications.

c) Regulations

- 1) All shoreline modifications must be in support of an authorized shoreline use or provide for human health and safety.
- 2) All shoreline development shall be located and designed to prevent or minimize the need for shoreline modifications.
- 3) In reviewing shoreline modification permits, the Shoreline Administrator shall require steps to avoid then reduce significant ecological impacts according to the mitigation sequence in Chapter 3, Section B.4.C.3.
- 4) The Shoreline Administrator shall base all shoreline modification decisions on available scientific and technical information and a comprehensive analysis of site-specific conditions provided by the applicant, as stated in WAC 173-26-231.

2. Shoreline Stabilization (Including Bulkheads)

a) Applicability

Shoreline stabilization includes structures and actions taken to address erosion impacts caused by natural processes, such as currents, floods, and waves. Examples of stabilization methods include beach restoration and enhancement, soil bioengineering, and bulkheads.

"Hard" structural stabilization measures refer to those with solid, hard surfaces, such as concrete or boulder bulkheads, while "soft" structural measures rely on less rigid materials, such as anchored logs, limited rock placement in conjunction with other components, bioengineered vegetation measures, and beach enhancement. Nonstructural methods include building setbacks, relocation of the structure to be protected, ground water management, and planning and regulatory measures.

Generally, the harder the construction measure, the greater the impact on shoreline processes, such as sediment transport, geomorphology, and biological functions. The means taken to reduce damage caused by erosion, accretion, and flooding must recognize and promote the benefits of these natural occurrences. Erosion does not occur without accretion (deposition and accumulation) of material eroded, such as formation of a beach or a sandbar. Likewise, accretion cannot occur unless material has been eroded.

A key regulatory distinction in this SMP is made between new stabilization measures and the replacement of existing stabilization measures. New stabilization measures include the enlargement of existing structures. Some of these techniques are currently being used in City as described below, or they are techniques that could be used to address local shoreline issues.

General policies and regulations addressing shoreline stabilization methods are presented below, followed by discussion, polices and regulations of the individual stabilization methods.

Beach Restoration or Enhancement

Beach enhancement is the alteration of exposed and submerged shorelines for the purpose of stabilization, recreational enhancement, and/or aquatic habitat creation or restoration using native or similar material. The materials used are dependent on the intended use. For recreational purposes, various grades of clean sand or pea gravel are often used to create a beach above the OHWM. Restoration or re-creation of a shore feature may require a rock and gravel matrix and/or other materials appropriate for the intended use.

Soil Bioengineering

Soil bioengineering is the practice of using natural vegetative materials to stabilize shorelines and prevent erosion. This may include use of root systems, or other living plant material; fabric; and limited rock toe protection, where appropriate. Soil bioengineering projects often include fisheries habitat enhancement measures, such as anchored logs or root wads, in project design. Soil bioengineering techniques may be applied to shoreline areas and the upland areas away from the immediate shoreline.

The use of soil bioengineering as a shoreline stabilization technique is a viable and proven alternative to riprap, concrete and other structural solutions. It provides habitat while maintaining and preserving the shoreline's natural character. Soil bioengineering is the preferred "best practices" choice when considering shoreline stabilization.

Bulkheads

Bulkheads are shoreline structures, either sloped or vertical, usually constructed parallel to the shore close to or at the OHWM. The primary purpose is to contain and prevent the loss of soil caused by erosion or wave action.

Bulkheads have historically been constructed of poured-in-place or precast concrete, concrete blocks, steel or aluminum sheet piling, wood or wood and structural steel combinations, and boulders. Bulkheads may be either thin structures penetrating deep into the ground or more massive structures resting on the surface.

Uses and activities related to bulkheads, which are identified as separate use activities in this program, such as Fill and Residential Development, are subject to the regulations for those uses in addition to the standards for bulkheads established in this section.

Groins

Groins are barrier-type structures of rock, wooden piling, or other materials constructed across the beach itself and extending into the water with the intent to obstruct sand and sediment carried by the littoral drift action along shorelines. Groins have limited applicability in the City's shoreline jurisdiction because of the relatively small size of the jurisdictional lakes.

b) Policies

- 1) Shoreline stabilization should be located, designed, and maintained to protect and maintain shoreline ecological functions, ongoing shoreline processes, and the integrity of shoreline features. Ongoing stream or lake processes and the probable effects of proposed shoreline stabilization on other properties and shoreline features should be considered. Shoreline stabilization should not be developed for the purpose of filling shorelines.
- 2) Hard structural shoreline stabilization measures should only be used when softer, more natural, flexible, or non-structural methods such as placing the development farther from the OHWM, planting vegetation, or installing on-site drainage improvements, beach nourishment and bioengineering have been determined infeasible. Alternatives for shoreline stabilization should be based on the following hierarchy of preference:
 - a. No action (allow the shoreline to retreat naturally), increase buffers, and relocate structures.
 - b. Flexible defense works constructed of natural materials including soft shore protection, bioengineering, including beach nourishment, protective berms, or vegetative stabilization.
 - c. Rigid works constructed of artificial materials such as riprap or concrete.
- 3) Structures should be located and designed to avoid the need for future shoreline stabilization where feasible. Land subdivisions should be designed to assure that future development would not require shore stabilization.
- 4) New or expanded structural shoreline stabilization should only be permitted where necessary to protect an existing primary structure or a legally existing shoreline use that is in danger of loss or substantial

damage, and where it would not cause a net loss of shoreline ecological functions and processes.

- 5) New or expanded structural shoreline stabilization for enhancement, restoration, or hazardous substance remediation projects should only be allowed when non-structural measures, vegetation planting, or on-site drainage improvements would be insufficient to achieve enhancement, restoration, or remediation objectives.
- 6) Shoreline stabilization should not be permitted when it interferes with public access, or other appropriate shoreline uses including, but not limited to, navigation or private recreation.
- 7) Non-regulatory methods to protect, enhance, and restore shoreline ecological functions and other shoreline resources should be encouraged for shore stabilization. Non-regulatory methods may include public facility and resource planning, technical assistance, education, voluntary enhancement and restoration projects, or other incentive programs.
- 8) Provisions for multiple use, restoration, and/or public shore access should be incorporated into the location, design, and maintenance of shore stabilization for public or quasi-public developments whenever safely compatible with the primary purpose. Shore stabilization on publicly owned shorelines should not be allowed to decrease long-term public use of the shoreline.
- 9) Materials used for construction of shoreline stabilization should be selected for long-term durability, ease of maintenance, compatibility with local shoreline features including aesthetic values, and flexibility for future uses.
- 10) New development that would require shoreline stabilization, which causes significant impacts to adjacent properties, should not be allowed.
- 11) Explore a range of solutions to reduce the amount of bulkheads and hard shoreline armoring over time around American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, and Waughop Lake and restore natural bank conditions. Alternative methods to typical shoreline armoring using native vegetation and other natural shoreline features should be the preferred method where feasible.

c) Regulations

Shoreline Stabilization - General Requirements

- 1) The standards in this section apply to all developments and uses in shoreline jurisdiction.
- 2) Except as otherwise provided in these regulations, structural shoreline stabilization to protect primary structures from damage from erosion shall be allowed only after it is demonstrated through a geotechnical report that non-structural solutions would not provide sufficient protection to existing structures. If structural stabilization is necessary to protect structures, then the feasibility of soft structural measures shall be evaluated prior to consideration of hard structural measures. Soft structural stabilization measures shall be used unless the Shoreline Administrator determines that it is not feasible based on the geotechnical report required in this section and provided by the applicant.

- 3) The geotechnical report shall evaluate the necessity of structural stabilization measures by estimating timeframes and rates of erosion, urgency, alternative solutions, and other pertinent factors. Hard armoring shall not be authorized except where the geotechnical report confirms that there is a significant possibility that a primary structure will be damaged within three years as a result of shoreline erosion in the absence of such measures or where waiting until the need is that immediate would foreclose the opportunity to use measures that would avoid impacts on ecological functions. Where a geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three (3) years, soft structural stabilization measures may be authorized.
- 4) Soft shoreline stabilization may include the use of gravels, cobbles, limited use of boulders in conjunction with other measures, and logs, as well as vegetation.
- 5) During construction or repair work on a shoreline stabilization measure, areas of temporary disturbance within the shoreline setback shall be restored as quickly as feasible to their pre- disturbance condition or better to avoid impacts to the ecological function of the shoreline.

Shoreline Stabilization - New Development

- 1) New development, including land subdivision, shall, to the extent feasible, be located and designed to eliminate the need for concurrent or future shoreline stabilization and ensure no net loss of ecological function at full build-out. A geotechnical analysis of the site and shoreline characteristics shall be required to assure that lots created through subdivision will not require shoreline stabilization in order for reasonable development to occur. New non-water dependent development that would require shoreline stabilization and cause significant adverse impacts to adjacent or down-current properties is prohibited.
- 2) New development, including single-family residences, that requires new structural shoreline stabilization shall be prohibited unless all of the conditions below are met:
 - a. The need to protect the development from damage due to erosion caused by natural processes, such as currents and waves is demonstrated through a geotechnical report;
 - b. The erosion is not being caused by upland conditions, such as loss of vegetation and drainage;
 - c. Non-structural measures, such as placing the development farther from the shoreline, planting vegetation, LID BMPs, or installing on-site drainage improvements, are not feasible or not sufficient; and
 - d. The stabilization structure will not result in a net loss of shoreline ecological functions.
- 3) New development on steep or unstable slopes shall be set back sufficiently to ensure that shoreline stabilization will not be needed during the life of the structure, as demonstrated by a geotechnical analysis prepared by a geotechnical engineer or related professional licensed and in good standing in the State of Washington.

Shoreline Stabilization - New or Expanded Measures

New structural stabilization measures and enlargement of existing structural stabilization measures shall be limited to the minimum size necessary and shall be permitted only when it has been conclusively demonstrated through scientific analysis that shoreline stabilization is necessary to protect existing primary structures, public improvements, ecological function restoration projects or hazardous substance remediation projects from erosion, and that nonstructural measures, planting vegetation, or installing on-site drainage improvements are not feasible or not sufficient.

Shoreline Stabilization - Replacement and Repair

- 1) An existing shoreline stabilization structure shall not be replaced with a similar structure unless there is a demonstrated need to protect legally established principal uses or existing structures from erosion caused by currents or waves and a nonstructural measure is not feasible.
- 2) Shoreline stabilization solutions developed to replace existing shoreline stabilization shall be placed along the same alignment as, or landward of, the shoreline stabilization being replaced, except as noted below.
- 3) Where existing hard structural stabilization is replaced by soft structural or non-structural shoreline stabilization using bioengineering techniques and results in a documented improvement of shoreline functions, such stabilization may be allowed waterward of the OHWM subject to state and federal approvals. Such stabilization does not constitute fill for the purpose of this SMP.
- 4) A major repair or replacement of a hard shoreline stabilization structure shall be allowed without a demonstration of need when the existing primary structure is ten (10) feet or less from the OHWM. All other major repair proposals must include a written narrative prepared by a qualified geotechnical engineer that provides a demonstration of need. A major repair shall be defined as:
 - a. A repair needed to a portion of an existing stabilization structure that has collapsed, eroded away, or otherwise demonstrated loss of structural integrity, or in which the repair work involves modification of the toe rock or footing, and the repair is fifty percent (50%) or greater than the linear length of the shoreline stabilization measure; or
 - b. A repair to more than seventy-five percent (75%) of the linear length of the existing hard structural stabilization measure in which the repair work involves replacement of top or middle course rocks or other similar repair activities.
- 5) Minor repairs are repairs that do not meet the threshold established in regulation 4 above. Such repairs shall be allowed without a demonstration of need.

General Shoreline Stabilization - Design Requirements

- 1) Shoreline stabilization and modification projects shall avoid adverse impacts to the environment to the greatest extent feasible, and where such impacts cannot be avoided, mitigation shall be provided to achieve no net loss of shoreline ecological functions.

- 2) Shoreline stabilization shall not be used to create new or newly usable land.
- 3) Shoreline stabilization shall not significantly interfere with normal surface and/or subsurface drainage into the water body.
- 4) Shoreline stabilization shall be designed so as not to constitute a hazard to navigation and not interfere with visual access to the water substantially.
- 5) Shoreline stabilization shall be designed so as not to not cause a significant impact to adjacent properties, including the need for shoreline stabilization elsewhere.
- 6) Professional design (as approved by the Shoreline Administrator) of all shoreline stabilization is required. All shoreline modifications shall be in support of a permitted shoreline use that is in conformance with the provisions of this SMP unless it can be demonstrated that such activities are necessary and in the public interest.
- 7) All shoreline modification activities must comply with all other regulations as stipulated by state and federal agencies, local tribes, or others that have jurisdiction.
- 8) Alternative methods to typical shoreline armoring using native vegetation and other natural shoreline features shall be considered when replacing existing and constructing new shoreline stabilization solutions.
- 9) Public access shall be required as part of publicly financed shoreline stabilization measures unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, unacceptable and immitigable significant ecological impacts, unavoidable conflict with proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.

Beach Restoration or Enhancement

- 1) Beach enhancement along American Lake, Gravelly Lake, Lake Louise and Lake Steilacoom may be permitted when the applicant has demonstrated that the project will not detrimentally interrupt littoral processes, redirect waves, current, or sediment to other shorelines, or adversely affect adjacent properties or habitat and all other standards of the SMP are followed.
- 2) Beach enhancement for the purpose of shoreline stabilization is limited to the minimum necessary. Proposals exceeding the threshold outlined in Section 4(c)(2) shall be subject to the requirements for shoreline fill in that section.
- 3) Natural beach restoration/enhancement activities shall not:
 - a. Extend waterward more than the minimum amount necessary to achieve the desired stabilization;
 - b. Disturb significant amounts of valuable shallow water fish/wildlife habitat without appropriate mitigation of the impacts.

- 4) The size and/or mix of new materials to be added to a beach shall be as similar as possible to that of the natural beach sediment, but large enough to resist normal current, wake, or wave action at the site.
- 5) The restored beach shall approximate, and may slightly exceed, the natural beach width, height, bulk or profile (but not as much as to create additional dry land).
- 6) Beach enhancement is prohibited within fish and/or wildlife spawning, nesting, or breeding habitat that would be adversely affected by it, as well as where littoral drift of the enhancement materials would adversely affect adjacent spawning grounds or other areas of biological significance.

Soil Bioengineering

- 1) All soil bioengineering projects shall use native plant materials appropriate to the specific area including trees, shrubs, and groundcovers, unless demonstrated infeasible for the particular site.
- 2) Except where more restrictive or specific Critical Area and Resource Lands Regulations apply, all cleared areas shall be replanted immediately following construction and irrigated (if necessary) to ensure that within three (3) years all vegetation is one hundred percent (100%) reestablished to achieve no net loss of ecological functions of the shoreline area. Areas that fail to reestablish vegetation adequately shall be replanted by the applicant with approved plant materials until the plantings are viable. The Shoreline Administrator may establish additional performance standards in permit conditions based on the project site and nature of the proposal.
- 3) Any bioengineered bank stabilization and replanted areas as required by Regulation 2 above shall be maintained in the form of a buffer zone for a minimum of three (3) years. The buffer zone shall exclude activities that could disturb the site. Where determined necessary by the Shoreline Administrator, fencing may be required to ensure protection of plantings.
- 4) All construction and planting activities shall be scheduled to minimize impacts to water quality and fish and wildlife aquatic and upland habitat, and to optimize survival of new vegetation.

Breakwaters

- 1) Breakwaters, jetties, and groins shall not be permitted.

Bulkheads

- 1) Bulkhead design and development shall conform to all other applicable local, state, and federal agency regulations.
- 2) On shorelines where no other adjacent bulkheads, the bulkhead construction shall tie in with the contours of the adjoining shorelines, as feasible, to avoid causing erosion of the adjoining properties.
- 3) Bulkheads may tie in flush with existing bulkheads on adjoining properties, provided that the new bulkhead does not extend waterward of OHWM, except that which is necessary to make the

connection to the adjoining bulkhead. In such circumstances, the remaining portion of the bulkhead shall be placed landward of the existing OHWM such that no net loss of lake occurs and the design complies with all other regulations as stipulated by state and federal agencies, local tribes, or others that have jurisdiction.

- 4) Replacement bulkheads shall not encroach waterward of the OHWM or existing structure unless the residence was occupied prior to January 1, 1992, and there is overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing stabilization structure.
- 5) When a bulkhead is required at a public access site, provisions for safe access to the water shall be incorporated into bulkhead design.
- 6) Stairs or other permitted structures may be built into a bulkhead, but shall not extend waterward of a bulkhead.
- 7) Fill behind bulkheads shall be limited to an average of one (1) cubic yard per linear foot of bulkhead. Any filling in excess of this amount shall be subject to the policies and regulations in this SMP pertaining to fill activities.

3. Dredging and Disposal

a) Applicability

Dredging is the removal or displacement of earth or sediments such as gravel, sand, mud or silt and/or other materials or debris from any stream, or lake and associated shorelines, side channels, and wetlands. In a lake setting, dredging is normally done for specific purposes or uses such as deepening a navigational channel or obtaining bottom material.

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

Of all activities on shorelines, dredging poses one of the greatest threats to water quality and aquatic life. In most cases, dredging occurs in shallow areas and may disturb the aquatic environment by temporarily reducing water clarity from suspended sediments, causing aquatic plant and animal loss by direct removal or from the sedimentation of suspended materials, altering the nutrient and oxygen levels of the water column, and suspending toxic materials from the sediments into the water column.

b) Policies

- 1) In all cases, dredging operations should be planned and conducted to protect and maintain existing aquatic habitat and other shoreline uses, properties, and values. Proposals that include dredging should provide mitigation to achieve no net loss of shoreline ecological functions.

- 2) When allowed, dredging and dredge material disposal should be limited to the minimum amount necessary.
- 3) Dredging waterward of the OHWM for the primary purpose of obtaining fill should not be allowed, except as part of a restoration or environmental cleanup project.
- 4) The City may impose limitations on dredging activities, such as limited operating hours, time periods, and requirements for buffer strips at the site.
- 5) Dredging or excavation of gravel for the purposes of flood management should be consistent with adopted flood hazard reduction plans and should result in no net loss of ecological function.

c) Regulations

- 1) Dredging and disposal of dredge material shall avoid and minimize significant ecological impact; impacts that cannot be avoided shall be mitigated to achieve no net loss of ecological processes and functions.
- 2) New development siting and design shall avoid the need for new and maintenance dredging.
- 3) Dredging may be permitted as a conditional use activity only:
 - a. When necessary to support a water-dependent use; or
 - b. For expansion or alteration of public utility facilities; or
 - c. As part of mitigation actions, environmental restoration, a comprehensive flood control program or habitat enhancement projects.
- 4) In all cases where dredging is allowed, dredging may be permitted as a conditional use:
 - a. When technical information demonstrates water circulation, littoral drift, aquatic life and water quality will not be substantially impaired; and
 - b. When other solutions would result in greater environmental impact; and
 - c. When applicable permits of other local, state, federal have been obtained.
- 5) Maintenance dredging associated with a water dependent use shall be restricted to maintaining the previously dredged and/or existing authorized location, depth, and width.
- 6) Dredging for the primary purpose of obtaining fill or construction material is prohibited, except for projects associated with MTCA or CERCLA habitat restoration, or any other significant restoration effort approved by a shoreline CUP. When dredging is allowed for fill materials, placement of fill must be waterward of the OHWM.
- 7) Proposals for dredging and dredge disposal shall include details on all feasible mitigation measures to protect aquatic habitats. Dredging and dredge disposal shall not create a net loss of shoreline ecological functions.
- 8) Dredging material, which will not subsequently cause violation of state Water Quality Standards, may be used in permitted landfill projects.

- 9) Excavation on beaches below the OHWM in lands covered by water constitutes dredging and shall include precautions to prevent the migration of fine grain sediments, disturbed by the excavation, onto adjacent beach areas. Excavations on beaches shall be backfilled promptly using material of similar composition and similar or coarser grain size.
- 10) Dredging shall be timed so that it does not interfere with aquatic life.
- 11) Depositing dredge materials in all water areas shall be prohibited, except where authorized in Regulation 6 above.
- 12) Disposal of dredged material on shorelands or wetlands within a CMZ shall be prohibited.
- 13) Dredging shall utilize techniques (such as hydraulic dredging instead of agitation dredging) that cause minimal dispersal and broadcast of bottom material.
- 14) Limitations may be imposed on dredging activities, such as limited operating hours, time periods, and requirements for buffer strips at the site.
- 15) Dredging or excavation of gravel for the flood management shall be consistent with an adopted flood hazard reduction plan per the requirements of WAC 173-26-221(3)(c). Such dredging or excavation shall only be approved after a biological study demonstrates that the project would have a long-term benefit to flood hazard reduction, is part of a comprehensive flood management solution, and would not result in a net loss of ecological function.

4. Fill

a) Applicability

Fill is the placement of soil, sand, rock, gravel, sediment, earth-retaining structure, or other material to an area waterward of the OHWM, in wetlands or on shorelands in a manner that raises the elevation or creates dry land. Fill is usually considered in locations where the water is shallow and rooted vegetation often occurs. In their natural condition, these areas provide valuable habitat for fish and wildlife feeding, breeding, and shelter. Biologically, these areas tend to be highly productive portions of the lake. For these reasons, governmental agencies and scientific experts have generally sought to prohibit or restrict fill.

b) Policies

- 1) Shoreline fill waterward of the OHWM should be permitted as a conditional use in all shoreline environment designations, and only when tied to a specific development proposal that is permitted by the SMP.
- 2) Where permitted, fill coverage should be the minimum necessary to provide for the proposed use.
- 3) In evaluating fill projects, factors such as current and potential public use of the shoreline and water surface area, water flow and drainage, water quality and habitat should be considered and protected to the maximum extent feasible. Further, the City should assess the overall value of the fill site in its

present state versus the proposed shoreline use to be created to ensure consistency with the SMA and this SMP.

- 4) Fills waterward of the OHWM should be restricted to the minimum necessary to support water-dependent uses, public access, cleanup and disposal of contaminated sediments as part of an interagency clean-up plan, disposal of dredged sediments in accordance with the Washington State Department of Natural Resources (DNR) rules, expansion or alteration of transportation facilities of statewide significance when no other alternatives are feasible, and for mitigation actions, environmental restoration and enhancement projects, and only when other solutions would result in greater environmental impact.
- 5) Shoreline fills should be designed and located so that there will be no net loss of existing ecological systems or natural resources, and no alteration of local currents, surface and subsurface drainage, or flood waters which would result in hazard to adjacent life, property, or natural resource systems.
- 6) The fill perimeter should be designed to avoid or eliminate erosion and sedimentation impacts, both during initial fill activities and over time. Natural appearing and self-sustaining control methods are preferred over structural methods.

c) Regulations

- 1) Fill proposals must demonstrate, at a minimum, that they will result in no net loss of shoreline ecological functions.
- 2) Fills waterward of the OHWM (not including small scale beach restoration that does not exceed twenty-five (25) cubic yards) shall require a CUP and shall be restricted to the minimum necessary to:
 - a. Support water-dependent uses;
 - b. Provide public access;
 - c. Allow for the remediation and disposal of contaminated sediments as part of an interagency clean-up plan;
 - d. Allow the disposal of dredged sediments in accordance with DNR rules;
 - e. Provide for the expansion or alteration of transportation facilities of statewide significance when no other alternatives are feasible; and
 - f. Accomplish mitigation actions, environmental restoration and enhancement projects, and only when other solutions would result in greater environmental impact.
- 3) Fills shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area.
- 4) All perimeters of fills shall be provided with vegetation, retaining walls, or other satisfactory mechanisms for erosion prevention and sediment capture.
- 5) Fill shall be permitted only where it is demonstrated that the proposed action will not:
 - a. Result in significant damage to water quality, fish, aquatic habitat, and/or wildlife habitat; or

- b. Adversely alter natural drainage and circulation patterns, or significantly reduce floodwater-holding capabilities.
- 6) No refuse disposal sites, solid waste disposal sites, or sanitary fills shall be permitted within the American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom or Waughop Lake shoreline areas.
- 7) Any placement or removal of materials landward of the OHWM shall comply with the Vegetation Conservation and Critical Areas provisions of this SMP.
- 8) Fill for the purpose of raising the average grade level is prohibited.

5. Overwater Structures and Launching Facilities

a) Applicability

Piers and docks are structures that abut the shoreline and often used as a landing or moorage place for watercraft. Piers are built on fixed platforms supported by piles above the water, while docks float upon the water. Some piers may terminate in a float section that is connected by a ramp.

Recreational floats are independent anchored offshore platforms, used for water-dependent recreational activities such as swimming and diving.

Boat launches include graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.

All of these types of facilities have positive and negative environmental aspects. Floating docks generally have less of a visual impact than piers on pilings. However, in the nearshore, docks can interrupt littoral drift of sediments and other suspended materials, and significantly shade the aquatic environment throughout their length. Pile piers can provide diverse habitat for both desirable and undesirable aquatic life. Excavated moorage involves dredging and disturbs bottom sediments and aquatic life. Docks and piers alike create impediments to boat traffic and fish travel. Boat launches impact soils and vegetation, both upland and aquatic. Construction of these facilities requires regulation to protect navigation, to protect shoreline aesthetics, and to maintain the useable water surface and aquatic lands for life forms characteristic and important to those areas.

b) Exemptions

The City will review all development proposals for overwater structures to determine if:

- 1) The proposal is or is not exempt from the requirement for a Substantial Development Permit per WAC 173-27-040;
- 2) The proposal is suitably located and designed and that all potential impacts have been recognized and mitigated such that there is no net loss of shoreline ecological functions; and
- 3) The proposal is consistent with the intent, policies, and regulations of the SMA, the SMP Guidelines, and this SMP.

c) General Policies

- 1) New piers and docks should be allowed only for public access and water-dependent uses.
- 2) New piers and docks should be restricted to the minimum size necessary and permitted only when the applicant has demonstrated that a specific need exists to support the intended water-dependent use.
- 3) Piers and docks should be discouraged where conflicts with recreational boaters and other recreational water activities would be created by pier and dock construction.
- 4) The further proliferation of single-purpose, single-owner piers, and docks should be discouraged. Preference should be given to the shared use piers in shoreline areas.
- 5) Preference should be given to fixed-pile piers elevated above the OHWM. Floating docks should be allowed if the applicant can demonstrate why a fixed pile pier is not feasible or will result in greater impacts.
- 6) Recreational floats should be allowed where they are intended to support public or private recreational uses, or in lieu of fixed piers adjacent to residential land uses.
- 7) New overwater boathouses are prohibited and new moorage covers should not be allowed, except through a CUP in the Shoreline Residential environment.
- 8) Overwater structures, including piers, should only be authorized after consideration of:
 - a. The effect such structures have on wildlife and aquatic life, water quality, scenic and aesthetic values, environmentally sensitive resources, submerged lands, and submerged vegetation.
 - b. The effect such structures have on water circulation, recreational boating, sediment movement and littoral drift and shoreline access.
- 9) Overwater structures and mooring buoys should be designed to cause minimum interference with navigable waters and the public's safe use of the lake and shoreline.
- 10) The proposed size of the structure and intensity of use or uses of any overwater structure should be compatible with the surrounding environment and land and water uses.
- 11) Lighting facilities should be limited to the minimum extent necessary to locate the pier or dock at night.

d) Regulations - Docks, Piers and Moorage Structures

- 1) All new overwater structures, including modifications and/or additions, must comply with all regulations contained in this SMP and all other regulations as stipulated by state and federal agencies, local tribes, or others that have jurisdiction.
- 2) Mitigation shall be provided for all reconstructed, repaired, or modified overwater structures to ensure

no net loss of ecological function.

- 3) Fixed pile piers elevated at least two (2) feet above the water surface shall be preferred over floating docks. Floating docks shall be allowed if floating elements are not located within the first twenty (20) feet of the shoreline, measured waterward of the OHWM, unless the applicant can demonstrate why adherence to this restriction is not feasible and an alternative design would result in less ecological impact.
- 4) New piers and docks shall be allowed only for public access and water-dependent use, which includes a structure associated with a single-family residence that is designed and intended as a facility for access to watercraft and otherwise complies with the regulations contained in this section. Piers and docks of the minimum size necessary to accommodate the proposed water dependent use may be permitted accessory to a development provided:
 - a. No more than one (1) pier/dock for each single-family residence is permitted. Up to one (1) buoy is allowed per dwelling unit in lieu of a dock.
 - b. No more than one (1) pier, dock or other moorage structure is allowed for a water dependent commercial use or a multi-family development on a single lot or contiguous ownership with the required minimum lot width.
- 5) On lots that have less than the minimum lot width for an overwater structure, as required in Table V, joint-use piers/docks shall be required, except when lots on either side of the subject lot have legal pre-existing piers or docks and the applicant demonstrates to the satisfaction of the Shoreline Administrator that a shared use agreement is not feasible. Only in this case may the lot with less than the required minimum lot width be permitted an individual pier.
- 6) New piers and docks that are not accessory to single-family residences shall be permitted only when intended for public use or when the applicant demonstrates that a specific need exists to support the intended water-dependent use.
- 7) New residential development of more than two (2) dwellings shall provide a joint use or community moorage structure, rather than individual piers or docks.
- 8) New moorage covers in the Shoreline Residential environment are permitted by a CUP, if the proposal meets all of the following criteria:
 - a. The applicant demonstrates that a joint use or community moorage structure is not feasible;
 - b. The applicant demonstrates that the moorage cover is the minimum size necessary to provide for the water dependent use;
 - c. The overwater structure does not create any potential adverse impacts to public safety;
 - d. Navigation rights are not significantly impacted;
 - e. The overwater structure does not cause environmental impacts that cannot be sufficiently mitigated;
 - f. The covered moorage is placed as far waterward of the OHWM as feasible and safe, within the limits of the dimensional standards for docks and piers established in this Section;

- g. There is only one (1) covered moorage per moorage facility, including joint use piers; and
 - h. The overwater structure complies with all other conditional use criteria in WAC 173-27-160 as outlined in Chapter 6 of this SMP.
- 9) New boat lifts and boat lift canopies are permitted as long as the following requirements are met:
- a. Boatlifts shall be placed as far waterward of the OHWM as feasible and safe, within the limits of the dimension standards for piers and docks.
 - b. Bottom of a boat lift canopy shall be elevated above the boat lift to the maximum extent feasible, the lowest edge of the canopy must be at least four (4) feet above the water surface, and the top of the canopy must not extend more than seven (7) feet above an associated pier.
 - c. One boat lift and boat lift canopy and up to two (2) jetski lifts per dwelling unit.
 - d. The lift does not require the placement of pilings or permanent structures.
 - e. A maximum of two (2) cubic yards of clean rock fill or pre-cast concrete blocks are permitted to anchor the boat lift if the substrate prevents the use of anchoring devices.
 - f. No hydraulic fluid other than water shall be used in the boat lift system; backflow protection may be required.
- 10) Proposed overwater structures that do not comply with the dimensional standards in Table V may only be approved if they obtain a variance. Provided that, pursuant to WAC 173-27-040 (2)(b), any legally existing nonconforming pier or dock may be repaired or restored (replacement may be authorized as repair) to its original pre-existing size, dimension, configuration and location without the need for a variance, provided such activity meets the definition of normal maintenance and repair. Projects undertaken pursuant to this section must be permitted within two years of removal of the pre-existing, nonconforming structure.
- 11) All float tubs shall be fully encapsulated.
- 12) Floating docks are required to be designed to not ground during low water conditions.
- 13) All overwater structures shall be constructed and maintained in a safe and sound condition. Abandoned or unsafe overwater structures shall be removed or repaired promptly by the owner.
- 14) Wooden components that will be in contact with water or over water shall not be treated or coated with herbicides, fungicides, paint, pentachlorophenol, arsenate, creosote, or similar toxic substances. Structures shall be made out of materials that have been approved by applicable state and federal agencies.
- 15) Non-water dependent elements and uses, such as decks and gazebos built on piers or docks, are not allowed.

Table V. Dimensional Standards for Overwater Structures

Standard	Dock or Float	Pier	Moorage Pile or Buoy
Height above OHWM ¹	N/A	2 ft.	N/A
Maximum Waterward Distance for all Single Use and Joint Use Moorage Structures or Floats ²	Point at which 11 ft. water depth from OHWM is reached, not to exceed the following: Lake Louise: 40 ft. All other lakes: 80 ft.	Point at which 11 ft. water depth from OHWM is reached, not to exceed the following: Lake Louise: 40 ft. All Other lakes: 80 ft.	Point at which 11 ft. water depth from OHWM is reached, not to exceed the following: Lake Louise: 40 ft. All Other lakes: 80 ft.
Maximum Waterward Distance for Community Docks	150 ft.	150 ft.	N/A
Setback from Extension of Side Yard Lot Lines	10 ft.	10 ft.	10 ft.
Maximum Surface Area ⁴	550 sq. ft. (single owner) 640 sq. ft. (2 owners) 100 sq. ft. for each additional owner over 2 up to a maximum size of 2,000 sq. ft. Please note that all docks and piers must also meet water frontage standards	550 sq. ft. (single owner) 700 sq. ft. (2 owners) 120 sq. ft. for each additional owner over 2 up to a maximum size of 2,000 sq. ft. Please note that all docks and piers and docks must also meet water frontage standards	N/A
Location of Ells, Fingers and Deck Platforms, or Freestanding Buoy or Moorage Pile ³	No closer than 20 ft. waterward of the OHWM. Within 20 ft. of the OHWM, only the access ramp portion of dock is allowed.	No closer than 20 ft. waterward of the OHWM. Within 20 ft. of the OHWM, only the access ramp portion of dock is allowed.	No closer than 20 ft. waterward of the OHWM and moorage piles may not be located farther away than the end of the pier of dock
Minimum Water Frontage Required - Single-Family	50 ft.	50 ft.	None

Standard	Dock or Float	Pier	Moorage Pile or Buoy
Private Joint Use or Community Docks - Intensity of Use (Number of Slips)	One moorage for each 30 ft. of shoreline frontage up to 210 ft., plus one moorage for each additional 20 ft.	One moorage for each 30 ft. of shoreline frontage up to 210 ft., plus one moorage for each additional 20 ft.	N/A
On Lake Steilacoom only, pier and dock primary walkways or decks must be fully grated or contain other materials that allow light transmittance through between thirty and fifty percent (30%-50%) of the material, depending on the pier or float width.			

¹ During the course of the normal fluctuations of the elevation of the water body, No portion of a deck of a pier shall protrude more than six (6) feet above the water surface.

² The proposed length must be the minimum necessary to support the intended use. The total dock length includes approach ramp and floating element(s). If eleven (11) foot average water depth is reached within twenty (20) feet of the approach ramp for a dock, a floating element will be permitted, not to exceed the maximum length standard. A dock or pier may exceed the maximum length with a shoreline variance, provided a report prepared by a qualified professional that includes verifiable survey information demonstrates the average water depth of eleven (11) feet is not attainable within the maximum length allowed from the OHWM. Existing public piers may be repaired or replaced to their previous length.

³ Includes all walkways and additional fingers. The maximum width of a ramp connecting a pier to a float should be minimized to the maximum extent practical and should not exceed 4 feet in width.

⁴ Includes all walkways, ramps, and additional fingers. The maximum surface area also includes the areas of related or separate recreational floats. Two or more residential property owners must utilize joint-use docks and piers. Existing public piers may be repaired or replaced to their previous square footage.

e) Regulations - Recreational Floats

1) Recreational floats may be permitted, provided:

- a. The area of a recreational float shall be minimized to the maximum extent feasible and comply with regulations as stipulated by state and federal agencies, local tribes, or others that have jurisdiction. No recreational float shall have more than one hundred and fifty (150) square feet when associated with a private recreation land use, and four hundred (400) when associated with a public recreational land use.
- b. Distance waterward from the OHWM. Recreational floats must be in water with depths of eleven (11) feet or more at the landward end of the float and may be located up to a maximum waterward distance as shown in Table V.

c. The area of the recreational float shall be in addition to the maximum surface area for overwater structures in Table V.

- 2) Recreational floats shall be designed and intended for swim use or other non-motorized use.
- 3) On Lake Steilacoom, recreational floats shall be fully grated.
- 4) Retrieval lines shall not float at or near the surface of the water.
- 5) Height. Recreational floats must be built so that the deck surface is one (1) foot above the water's surface and they must have reflectors for nighttime visibility.
- 6) All float tubs shall be fully encapsulated.

f) Regulations - Moorage Piles and Buoys

- 1) Up to two (2) moorage piles are allowed per dwelling unit, up to a maximum of six (6) moorage piles for joint use or community docks.
- 2) Up to one (1) buoy is allowed per dwelling unit in lieu of a dock.
- 3) Buoys shall be anchored to the lake substrate in accordance with all state and federal requirements.

g) Regulations - Boat Launches (Rails and Ramps)

- 1) Launching rails may be permitted as a conditional use in the Shoreline Residential environment in lieu of a moorage pier. The applicant shall demonstrate that the proposed length of the rail is the minimum necessary to safely launch the intended craft and comply with all regulations as stipulated by state and federal agencies, local tribes, or others that have jurisdiction. In no case shall the rail extend beyond the point where the water depth is eight (8) feet below the OHWM.
- 2) Launching rails shall be anchored to the ground with the use of tie-type construction.
- 3) No more than one (1) launching rail per single-family residence or duplex is permitted.
- 4) Launching ramps may be permitted as a conditional use for recreational uses or when serving more than four (4) residential units in the Shoreline Residential or Urban Park environment. The applicant shall demonstrate that the proposed length of the ramp is the minimum necessary to safely launch the intended craft and comply with all regulations as stipulated by state and federal agencies, local tribes, or others that have jurisdiction. In no case shall the ramp extend beyond the point where the water depth is eight (8) feet below the OHWM.
- 5) Launching ramps serving more than four (4) residential units are regulated as Boating Facilities and they must comply with all policies and regulations in Chapter 4 of this SMP. Launching rails serving more than four (4) residential units are prohibited.

- 6) Location Standards - Launch ramps and launching rails shall be sited so that they do not significantly damage fish and wildlife habitats and shall not occur in areas with native emergent vegetation. Removal of native upland vegetation shall be minimized to the greatest extent feasible. All facilities shall be sited and designed per required mitigation sequencing.
- 7) Where feasible, launch ramps and launching rails shall be located only on stable shorelines where water depths are adequate to eliminate or minimize the need for dredging, filling, beach enhancement or other maintenance activities.
- 8) The design shall comply with all regulations as stipulated by state and federal agencies, affected tribes, or other agencies with jurisdiction.
- 9) Design Standards
 - a. Boat launches for non-motorized boats shall be constructed of gravel or other similar natural material.
 - b. Preferred launch ramp designs for motorized boats, in order of priority, are:
 - i. Open grid designs with minimum coverage of lake substrate.
 - ii. Seasonal ramps that can be removed and stored upland.
 - iii. Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in shoreline profile.
 - iv. Standard concrete pads.

h) Regulations - In-stream Structures

- 1) In-stream structures shall be minimized and shall only be allowed consistent with the provisions of the SMP, including mitigation sequencing and no net loss.
- 2) When allowed, in-stream structures shall be located, designed and operated to protect and preserve ecosystem-wide processes, ecological functions and cultural resources, including (but not limited to) fish passage, wildlife and water resources, critical areas, hydrogeological processes and natural scenic vistas.
- 3) The location and planning of in-stream structures shall give due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species. In particular, this includes anadromous fish.

Chapter 6 Administration

A. Purpose and Applicability

There is hereby established an administrative system designed to assign responsibilities for implementation of the SMP and shoreline permit review, to prescribe an orderly process by which to review proposals and permit applications, and to ensure that all persons affected by this SMP are treated in a fair and equitable manner. All proposed shoreline uses and development, including those that do not require a shoreline permit, must conform to the SMA and to the policies and regulations of this SMP.

The SMP shall apply to every person, individual, firm, partnership, association, organization, corporation, local or state governmental agency, public or municipal corporation, or other non-federal entity which develops, owns, leases or administers lands, wetlands, or waters that fall under the jurisdiction of the Act. The permit requirements established under the SMP apply to all nonfederal activities, and to development and uses undertaken on lands not federally owned but under lease, easement, license or other similar property right of the federal government. Nothing in the SMP shall affect and rights established by treaty to which the United States is a party.

B. Shoreline Administrator

1. Authority

- a) The City's Shoreline Administrator is hereby vested with:
 - 1) Overall authority for administering the SMA and this SMP;
 - 2) Authority to approve, approve with conditions, or deny shoreline permit revisions in accordance with the policies and provisions of this SMP; and
 - 3) Authority to grant statements of exemption from substantial development permits in accordance with the policies and provisions of this SMP.

2. Duties

- a) The duties and responsibilities of the Shoreline Administrator shall include:
 - 1) Preparing and using application forms essential to administer this SMP.
 - 2) Advising interested citizens and applicants of the policies, regulations, and procedures of this SMP.

- 3) Making administrative decisions and interpretations of the policies and regulations of this SMP and the SMA. In development of any procedures for and/or administrative interpretations of the Master Program, the Administrator shall consult with the Department of Ecology to insure any formal written interpretation is consistent with the purpose and intent of the Shoreline Management Act and the Shoreline Master Program Guidelines.
- 4) Collecting applicable fees, as established in the City's fee schedule.
- 5) Determining application submission completeness.
- 6) Conducting field inspections as necessary.
- 7) Reviewing applications and submitted and related information.
- 8) Determining if a substantial development permit, CUP, or variance is required.
- 9) Providing copies of permit applications to relevant staff and agencies for review and comment.
- 10) Conducting a thorough review and analysis of shoreline exemption applications; reviewing other staff and agency comments; making written findings and conclusions; and approving, approving with conditions, or denying such exemptions.
- 11) Submitting substantial development permit, CUP and variance applications and written recommendations and findings on such permits to the City's Hearing Examiner for their consideration and action.
- 12) Assuring that proper notice is given to appropriate persons and the public for all hearings.
- 13) Providing technical and administrative assistance to the City's Hearing Examiner, Planning Advisory Board, and City Council as required for effective and equitable implementation of this program and the Act.
- 14) Investigating, developing, and proposing amendments to this SMP as deemed necessary to more effectively and equitably achieve its policies.
- 15) Enforcing and seeking remedies for alleged violations of this SMP, the SMA or conditions of any approved shoreline permit issued by the City.
- 16) Acting as the primary liaison between local and state agencies in the administration of the SMA and this SMP.
- 17) Forwarding shoreline permits to the Ecology for filing or action.

C. Substantial Development

Any person wishing to undertake substantial development within the shoreline shall submit materials as required under Chapter 18A.02 LMC and shall apply to the Shoreline Administrator for a shoreline permit, as required in this Chapter and Chapter 90.58 RCW. Specific submittal requirements may be established by administrative rule.

1. Exemptions

- a) Developments, which are exempt from the requirement for a substantial development permit, are identified in WAC 173-27-044 or as subsequently amended.
- b) Applicants must apply for an exemption approval on forms provided by the City, pursuant to Chapter 18A.02 LMC. Applicants shall be required to submit information necessary to determine the exemption and compliance with the requirements of this SMP. Submittal requirements shall be established by administrative rule.
- c) Before determining that a proposal is exempt, the Shoreline Administrator may conduct a site inspection to ensure that the proposal meets the exemption criteria.
- d) All development, use, or activity that occurs within the shoreline jurisdiction is subject to the requirements of this SMP, regardless of whether a substantial development permit required.
- e) Exempt development may still require a variance or CUP. For example, exempt development that cannot meet the dimensional standards in this SMP will require a variance and certain uses are allowed in certain shoreline environment designations only upon approval of a CUP.
- f) The Administrator shall prepare a letter of exemption whenever a development is determined to be exempt from the Substantial Development permit requirements and the development is subject to one or more of the federal permit requirements outlined in WAC 173-27-050. The letter shall indicate the specific exemption that is being applied to the development and provide a summary of the City's analysis of the consistency of the project with the SMP.

2. Permit Process

- a) Applicants shall apply for substantial development permits, CUPs, and variances on forms provided by the City.
- b) Substantial development permits, CUPs, and variances are Process II applications and shall be processed and subject to the applicable regulations of Chapter 18A.02 LMC, as amended.
- c) Public Notice. A notice of application shall be issued for all shoreline permit applications as provided for in Chapter 18A.02 LMC, as amended, excepting that the public comment period for the notice of application for a shoreline permit shall be not less than thirty (30) days, per WAC 173-27-1 10(2)(e).

- d) Public Hearing. The Shoreline Administrator, at his or her discretion, may refer any shoreline application to the Hearing Examiner as a Process III application when the proposal could significantly impact another party or the proposal is of broad public concern. If a hearing is to be held on an application, notices of such a hearing shall include a statement that any person may submit oral or written comments on an application at the hearing.
- e) Application review. The Shoreline Administrator shall make decisions on applications for substantial development permits, CUPs, and variances based upon:
 - 1) The policies and procedures of the SMA and related sections of the WAC;
 - 2) Any public comment received on the application as it relates to compliance with the requirements of the SMA or this SMP; and
 - 3) Special procedures for WSDOT projects. Permit review time for projects on a state highway. Pursuant to RCW 47.01.485, the Legislature established a target of 90 days review time for local governments; and
 - 4) This SMP.
- f) Local Appeal. All decisions of the Shoreline Administrator may be appealed to the Hearing Examiner pursuant to Chapter 18A.02 LMC and related provisions. Any party may also appeal a substantial development permit, CUP, or variance to the Shoreline Hearings Board as provided by RCW 90.58.180 without first exhausting any local appeal opportunity. The decision of the Hearing Examiner may also be appealed to the Shoreline Hearings Board.
- g) Filing with Ecology. All applications for a permit or permit revision shall be submitted to Ecology, as required by WAC 173-27-130 or as subsequently amended. After City approval of a CUP or Variance, the City shall submit the permit to the Ecology for approval, approval with conditions, or denial, as provided in WAC 173-27-200. Ecology shall transmit its final decision to the City and the applicant within thirty (30) calendar days of the date of submittal by the City. Permit revisions shall comply with the revision approval criteria and process provided in WAC 173-27-100.
- h) Hold on Construction. Each permit issued by the City shall contain a provision that construction pursuant to the permit shall not begin and is not authorized until twenty-one (21) days from the date of filing with Ecology, per WAC 173-27-190 or as subsequently amended. "Date of filing" of the City's final decision on Substantial Development Permits differs from date of filing for a CUP or variance. In the case of a substantial development permit, the date of filing is the date Ecology actually receives the City decision on the permit. In the case of a variance or CUP, the "date of filing" means the date that Ecology's final decision on the permit is transmitted to the City.
- i) Duration of permits. Construction, or the use or activity, shall commence within two (2) years after the effective date of the permits. Authorization to conduct development activities shall terminate within five (5) years after the effective date of a shoreline permit. The Shoreline Administrator may authorize a single extension before the end of either of these time periods, with prior notice to parties of record and Ecology, for up to one (1) year based on reasonable factors.
- j) Compliance with permit conditions. When permit approval includes conditions, such conditions shall be satisfied prior to occupancy or use of a structure or prior to commencement of a nonstructural activity. All

uses and developments occurring within shoreline jurisdiction shall be compliant with Chapter 90.58 RCW.

D. Variances and Conditional Use Permits

The SMA states that SMPs shall contain provisions covering variances and CUPs that are consistent with Chapter 173-27 WAC. These provisions should be applied in a manner, which assures that a person will be able to use his/her property in a fair and equitable manner while still protecting the environment.

1. Shoreline Variance

a) Purpose

The purpose of a variance is strictly limited to granting relief to specific bulk dimensions, or performance standards set forth in this SMP, and where there are extraordinary or unique circumstances relating to the property such that the strict implementation of the SMP would impose unnecessary hardships on the applicant or thwart the SMA policies as stated in RCW 90.58.020. Construction pursuant to this permit shall not begin nor can construction be authorized except as provided in RCW 90.58.020. In all instances, extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect.

b) Application

- 1) An application for a Variance shall comply with the provisions of Chapter 18A.02 LMC. An applicant for Substantial Development Permit who wishes to request a Variance shall submit the applications for a Variance and Substantial Development Permit simultaneously.

c) Criteria for Granting Variances

- 1) Variances for development that will be located landward of the OHWM and landward of any wetland may be authorized provided the applicant can demonstrate consistency with the following variance criteria as listed in WAC 173-27-170:
 - a. That the strict application of the bulk, dimensional, or performance standards set forth in the SMP precludes, or significantly interferes with, reasonable use of the property.
 - b. That the hardship described 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 SMP and not, for example, from deed restrictions or the applicant's own actions.
 - c. That the design of the project is compatible with other permitted activities within the area and with the uses planned for the area under the Comprehensive Plan and SMP and the design will not cause adverse impacts to the shoreline environment.
 - d. That the variance will not constitute a grant of special privilege not enjoyed by the other properties in the area.

- e. That the variance requested is the minimum necessary to afford relief.
 - f. That the public interest will suffer no substantial detrimental effect.
- 2) Variances for a development that will be located waterward of the OHWM mark or within any wetland may be authorized provided the applicant can demonstrate all of the following:
 - a. That the strict application of the bulk, dimensional, or performance standards set forth in the SMP precludes all reasonable use of the property.
 - b. That the proposal is consistent with the criteria established under subsection (1)(a) through (f) of this section.
 - c. That the public rights of navigation and use of the shorelines will not be adversely affected.
 - 3) In the granting of all variances, 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 RCW 90.58.020 and shall not cause substantial adverse effects to the shoreline environment.
 - 4) Variances from the use regulations of the SMP are prohibited.

2. Shoreline Conditional Use Permits

a) Purpose

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

b) Application

An application for a CUP shall comply with the provisions of Chapter 18A.02 LMC. An applicant for a Substantial Development Permit who wishes to request a CUP shall submit the applications for a CUP and Substantial Development Permit simultaneously.

c) Criteria for Granting Shoreline Conditional Use Permits

- 1) Uses classified as conditional uses in the SMP may be authorized, provided the applicant demonstrates all of the following conditional use criteria as listed in WAC 173-27-160:
 - a. That the proposed use is consistent with the policies of RCW 90.58.020 and the SMP;
 - b. That the proposed use will not interfere with the normal public use of public shorelines;
 - c. That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the Comprehensive Plan and this

- SMP;
- d. That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located; and
 - e. That the public interest suffers no substantial detrimental effect.
- 2) In the granting of all CUPs, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if CUPs were granted for other developments in the area where similar circumstances exist, the total of the conditional uses shall also remain consistent with the policies of RCW 90.58.020 and shall not produce substantial adverse effects to the shoreline environment.
 - 3) Other uses, which are not classified or set forth in this SMP, may be authorized as conditional uses provided the applicant can demonstrate consistency with the requirements of this section and the requirements for conditional uses contained in the SMP.
 - 4) Uses, which are specifically prohibited by this SMP, shall not be authorized.

E. Appeals to the Shoreline Hearings Board

Any person aggrieved by the granting or denying of a substantial development permit, CUP, or variance, the upholding of an exemption appeal, or by the rescinding of a permit pursuant to the provisions of this SMP, may seek review from the State of Washington Shorelines Hearing Board by filing a petition for review within twenty-one (21) days of the date of filing of the permit decision. Within seven (7) days of filing the petition, the petitioner shall serve copies of the petition to Ecology, the Attorney General's Office, and the City of Lakewood. State Hearings Board regulations are provided in RCW 90.58.180 and Chapter 461-08 WAC.

F. Nonconforming Use and Development Standards

1. Applicability

"Nonconforming use or development" means a shoreline use or development which was lawfully constructed or legally established prior to the effective date of the SMA or this SMP, or amendments thereto, but which does not conform to present regulations or standards of this SMP. Nonconforming uses are also subject to LMC Section 18A.02.830. Where the standards in this Section are more specific or conflict with the standards in LMC Section 18A.02.830, the standard in this Section shall apply. Where the standards contained in this Section do not address an issue related to nonconforming development, the standards contained in LMC Section 18A.02.830 shall apply.

2. Standards for Nonconforming Structures, Uses, and Lots

a. Nonconforming structures

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

structures and may be maintained and repaired.

- 2) Nonconforming structures may be enlarged or expanded provided that said enlargement meets the applicable provisions of the master program. In the absence of other more specific regulations, proposed expansion shall not increase the extent of nonconformity by further encroaching upon or extending into areas where construction would not be allowed for new structures, unless a shoreline variance permit is obtained.
- 3) Nonconforming single-family residences that are located landward of the ordinary high water mark may be enlarged or expanded in conformance with applicable bulk and dimensional standards by the addition of space to the main structure or by the addition of normal appurtenances as defined in WAC 173-27-040 (2)(g) upon approval of a conditional use permit.
- 4) A structure for which a variance has been issued shall be considered a legal nonconforming structure and the requirements of this section shall apply as they apply to preexisting nonconformities.
- 5) In the absence of other more specific regulations, a structure which is being or has been used for a nonconforming use may be used for a different nonconforming use only upon the approval of a conditional use permit. A conditional use permit may be approved only upon a finding that:
 - a. No reasonable alternative conforming use is practical; and
 - b. The proposed use will be at least as consistent with the policies and provisions of the act and the master program and as compatible with the uses in the area as the preexisting use. In addition, such conditions may be attached to the permit as are deemed necessary to assure compliance with the above findings, the requirements of the master program and the Shoreline Management Act and to assure that the use will not become a nuisance or a hazard.
- 6) A nonconforming structure which is moved any distance must be brought as closely as practicable into conformance with the applicable master program and the act.
- 7) If a nonconforming development is damaged to an extent not exceeding seventy-five percent of the replacement cost of the original development, it may be reconstructed to those configurations existing immediately prior to the time the development was damaged, provided that application is made for the permits necessary to restore the development within two years of the date the damage occurred.

b. Nonconforming uses

- 1) Uses that were legally established and are nonconforming with regard to the use regulations of the master program may continue as legal nonconforming uses.
- 2) In the absence of other more specific regulations in the master program, such uses shall not be enlarged or expanded, except upon approval of a conditional use permit.
- 3) If a nonconforming use is discontinued for twelve consecutive months or for twelve months during any two-year period, the nonconforming rights shall expire and any subsequent use shall be conforming unless re-establishment of the use is authorized through a conditional use permit which must be applied

for within the two year period. Water-dependent uses should not be considered discontinued when they are inactive due to dormancy, or where the use includes phased or rotational operations as part of typical operations. A use authorized pursuant to subsection (2)(e) of this section shall be considered a conforming use for purposes of this section.

c. Nonconforming lots

A nonconforming lot may be developed if permitted by other land use regulations of the local government and so long as such development conforms to all other requirements of the applicable master program and the act.

G. Enforcement and Penalties

1. General Provisions

- a) The Shoreline Administrator shall enforce all provisions of this SMP. The enforcement procedures and penalties contained in Chapter 173-27 WAC and Chapter 90.58 RCW are hereby incorporated by reference. See also Chapter 1.44 LMC for additional information regarding the City's enforcement regulations and related penalties.
- b) The Shoreline Administrator shall have authority to enforce this Title, any rule or regulation adopted, and any permit, order or approval issued pursuant to this Title, against any violation or threatened violation thereof. The Shoreline Administrator is authorized to issue civil infraction citations and administrative orders, levy fines, and/or institute legal actions in court including prosecution of misdemeanor violations. Recourse to any single remedy shall not preclude recourse to any of the other remedies. Each violation of this Title, or any rule or regulation adopted, or any permit, permit condition, approval or order issued pursuant to this Title, shall be a separate offense, and, in the case of a continuing violation, each day's continuance shall be deemed a separate and distinct offense. An application for a required permit, when pursued in good faith, shall stay the accumulation of violations. All costs, fees, and expenses in connection with enforcement actions may be recovered as damages against the violator.
- c) The Shoreline Administrator is authorized to make site inspections and take such actions as necessary to enforce the SMP. The Shoreline Administrator or representative may enter private property with the consent of the owner or occupant or pursuant to a warrant.
- d) The Shoreline Administrator shall have the authority to order restoration, rehabilitation or replacement measures to compensate for the destruction or degradation of areas at the owner's expense.
- e) The Shoreline Administrator may bring appropriate actions at law or equity, including actions for injunctive relief, to ensure that no uses are made of shorelines, which are inconsistent with this Title. Enforcement actions shall include civil infractions, administrative orders, prosecution of misdemeanors, and actions for damages and restoration.
- f) Aiding or abetting. Any person who, through an act of commission or omission, procures, aids, or abets in the violation shall be considered to have committed a violation of this Title.

- g) Any person found to have violated any provision of this Title or who knowingly makes a false statement, representation or certification in any application, record or other document filed or required to be maintained under this Title or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, record or methodology required to be maintained pursuant to this Title shall be guilty of a misdemeanor, punishable by up to 90 days in jail and/or a fine of up to \$1,000.00.
- h) Orders and penalties issued pursuant to this Section may be appealed as provided for by this Title.

2. Administrative Orders

- a) The Shoreline Administrator may serve an administrative order when any person makes or partakes in any use of land, development or any activity within the shoreline jurisdiction or on associated critical areas and/or buffers in violation of this Title. The order shall include the following:
 - 1) A description of the specific nature, location, extent, and time of violation. The order may include the damage or potential damage resulting from the violation.
 - 2) A notice that the violation or the potential violation cease and desist or, in appropriate cases, the specific corrective action to be taken within a given time. A civil penalty may be issued with the order.
 - 3) Effective date. The cease and desist order issued under this Section shall become effective immediately upon receipt by the person to whom the order is directed.
 - 4) Compliance. Failure to comply with the terms of an administrative order can result in enforcement actions including, but not limited to, the issuance of a civil penalty.
 - 5) The order may include specific corrective measures to be taken to mitigate environmental damage.
 - 6) The order shall state that an affected party may request a hearing by sending a written request for a hearing to the Shoreline Administrator within ten (10) days of the receipt of said order and upon payment of the applicable appeal fee.
 - 7) Failure to comply with the terms and provisions of an administrative order issued under this Title shall constitute public nuisance and may be abated and prosecuted according to applicable law including LMC Section 8.16, Chapter 7.48 RCW and Chapter 9.66 RCW.
 - 8) Administrative orders pursuant to this Title shall be served upon the property owner, person, or party occupying the property by personal service or by mailing a copy of the order by certified mail, postage prepaid, return receipt requested, to the property owner at the property address or to the mailing address listed upon public records regarding the property. In the event that personal service or certified mail service cannot be completed, or the property owner cannot be identified or located, service of the order may be achieved by posting the administrative order in a conspicuous location upon the property.
 - a. Any person who undertakes any activity within an area regulated by the SMA or affiliated critical area or buffer without first obtaining an approval required by this Title, or who violates one or

more conditions of any approval required by this Title, shall be subject to a Class 2 civil infraction citation with a mandatory \$250.00 fine. Any person who violates one or more conditions of administrative order issued under this Title may be subject to prosecution for a misdemeanor, and a maximum penalty of 90 days in jail and/or a \$1,000.00 fine may be imposed. Each violation and, in the case of a continuing violation, each violation and each day of activity without a required approval shall be a separate and distinct violation. An application for a required permit, when pursued in good faith, shall stay the accumulation of violations. The penalty provided shall be appealable as provided by law.

- b. Any person, party, firm, corporation, or other legal entity convicted of violating any of the provisions of this Title, shall be guilty of a civil infraction or misdemeanor. Each day or portion of a day during which a violation of this Title is continued, committed, or permitted shall constitute a separate offense. Any development carried out contrary to the provisions of this Title shall constitute a public nuisance and it may be enjoined as provided by the Statutes of the State of Washington.

3. Suspension and Revocation

In addition to other penalties provided for elsewhere, the Shoreline Administrator may suspend or revoke any project permit approval if it finds that the applicant has not complied with any or all of the conditions or limitations set forth in the approval, has exceeded the scope of work set forth in the approval, or has failed to undertake the project in the manner set forth in the approved application.

H. Shoreline Master Program Review by City of Lakewood

1. This SMP shall be periodically reviewed and amendments shall be made as are necessary to reflect changing local circumstances, new information or improved data, and changes in state statutes and administrative rules, and changes to the City's Comprehensive Plan and implementing regulations.
2. The City's established permit tracking system, aerial photos, reviewing of other available data, and field observations as feasible shall be used to periodically evaluate the effectiveness of this SMP in achieving no net loss of shoreline ecological functions with respect to both permitting and exemptions. This process shall also be used to periodically evaluate the cumulative effects of authorized development on shoreline conditions.
3. As part of any major update, an evaluation report assessing the effectiveness of the SMP in achieving no net loss shall be prepared and considered in determining whether policies and regulations are adequate in achieving this requirement.
4. The SMP periodic review process shall be consistent with requirements of RCW 90.58.080 and WAC 173-26-090 or its successor and shall include a local citizen involvement effort and public hearing to obtain the views and comments of the public.

I. Amendments to the Shoreline Master Program

1. Any of the provisions of this SMP may be amended as provided for in RCW 90.58.120 and .200 and Chapter 173-26 WAC. Any amendments shall also be subject to the procedures in LMC Section 18A.02.
2. Amendments or revisions to the SMP, as provided by law, do not become effective until approved by Ecology.

J. Severability

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

K. Conflict of Provisions

Should a conflict occur between the provisions of this SMP or between this SMP and the laws, regulations, codes or rules promulgated by any other authority having jurisdiction within the City, the requirement that most supports the purposes and provisions of the SMA as detailed in RCW 90.58.020 shall apply, as determined by the Shoreline Administrator, except when constrained by federal or state law.

Chapter 7 Definitions and Abbreviations

THE FOLLOWING WORDS AND PHRASES ARE GIVEN THE DEFINITIONS AND/OR ABBREVIATIONS PROVIDED IN THIS CHAPTER FOR PURPOSES OF INTERPRETING THIS SMP.

Accessory use or accessory structure - Any subordinate use, structure, or building or portion of a building located on the same lot as the main use or building to which it is subordinate.

Accretion - The growth of a beach by the addition of material transported by wind and/or water, including, but not limited to, shore forms such as barrier beaches, points, spits, and hooks.

Act - The Shoreline Management Act (See Chapter 90.58 RCW).

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

Agriculture - Agricultural uses, practices and activities. In all cases, the use of agriculture related terms shall be consistent with the specific meanings provided in WAC 173-26-020. Accessory agricultural uses may consist of garden plots, livestock pens, barns, or other structures supporting incidental agriculture on the property.

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

Appurtenance - A structure or development which is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the OHWM and also of the perimeter of any wetland. For purposes of this SMP, normal appurtenances are outlined in Chapter 4, Section D(6)(c)(11).

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

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

Associated wetlands - Those wetlands that are in proximity to and either influence, or are influenced by tidal waters or a lake or stream subject to the SMA. (See WAC 173-22-030(1)).

Average grade level - The average of the natural or existing topography of the portion of the lot, parcel, or tract of real property which will be directly under the proposed building or structure; provided that in case of structures to be built over water, average grade level shall be the elevation of OHWM. Calculation of the average grade level shall be made by averaging the elevations at the center of all exterior walls of the proposed building or structure (See WAC 173-27-030(3)).

Baseline - The existing shoreline condition, in terms of both ecological function and shoreline use, established at the time this SMP is approved.

Beach - The zone of unconsolidated material that is moved by waves, wind and tidal currents, extending landward to the coastline.

Beach enhancement/restoration - Process of restoring a beach to a state that more closely resembles a natural beach, using beach feeding, vegetation, drift sills and other nonintrusive means as applicable.

Beach feeding - Landfill deposited on land or in the water to be distributed by natural water processes for the purpose of supplementing beach material.

Benthic organism or Benthos - Living organisms that live in or on the bottom layer of aquatic systems, at the interface of the sediment (or substrate) and overlying water column. Benthos commonly refers to an assemblage of insects, worms, algae, plants and bacteria.

Berm - A linear mound or series of mounds of sand and/or gravel generally paralleling the water at or landward of the OHWM. A linear mound may be used to screen an adjacent activity, such as a parking lot, from transmitting excess noise and glare.

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

Bioengineering - see Soil bioengineering.

Biofiltration system - A stormwater or other drainage treatment system that utilizes the ability of plant life to screen out and metabolize sediment and pollutants. Typically, biofiltration systems are designed to include grassy swales, retention ponds and other vegetative features.

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

BMPs - see Best Management Practices.

Boat launch or ramp - Graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.

Boat lift - A mechanical device that can hoist vessels out of the water for storage, usually located along a pier.

Boat lift canopy - A translucent canopy or awning that is attached to the boat lift to shield the boat from sun and precipitation.

Boathouse - A structure designed for storage of vessels located over water or on shorelands. Boathouses do not include "houseboats" or "floating homes." Boathouses have 4 walls and a solid roof, whereas covered moorage does not include walls, only a roof.

Boating facility - A public or private moorage structure or boat launch serving more than four (4) residences.

Breakwater - An offshore structure generally built parallel to the shore that may or may not be connected to land, built to protect a harbor, moorage, or navigational activity from wave and wind action by creating a still-water area along the shore and to protect the shoreline from wave-caused erosion.

Buffer or "buffer zone, strip, or area" means the area adjacent to a shoreline or critical area that separates and protects the area from adverse impacts associated with adjacent land uses.

Bulkhead - A vertical or nearly vertical erosion protection structure placed parallel to the shoreline at or near the OHWM, consisting of concrete, timber, steel, rock, or other permanent material not readily subject to erosion.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act ("Superfund"); 1986 amendments are known as Superfund Amendments and Reauthorization Act or "SARA."

Channel Migration Zone (CMZ) - The area within which a river channel is likely to move over a period of time, also referred to as the meander belt. Unless otherwise demonstrated through scientific and technical information, areas separated from the active river channel by legally existing artificial channel constraints that limit channel movement within incorporated municipalities and urban growth areas and all areas separated from the active channel by a legally existing artificial structure(s) that is likely to restrain channel migration, including transportation facilities, built above or constructed to remain intact through the one hundred-year flood should not be considered within the CMZ.

Chapter 90.58 RCW - The Shoreline Management Act of 1971.

City - The City of Lakewood.

Clearing - The destruction or removal of vegetation ground cover, shrubs and trees including, but not limited to, root material removal and/or topsoil removal.

CMZ - see Channel Migration Zone.

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

Community Pier / Dock - Joint use moorage serving more than four (4) residences that is tied to specific parcels by covenant or deed. Community piers are distinguished from marinas in that they do not offer moorage space for lease or sale.

Comprehensive Plan - Comprehensive plan means the document adopted by the city council, including all attachments, that outlines the City's goals and policies relating to growth management, and prepared in accordance with Chapter 36.70A RCW.

Conditional Use - A use, development, or substantial development that is classified as a conditional use or is not classified within the SMP. (See WAC 173-27-030(4)).

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.

Covered moorage - Boat moorage, without solid walls, that has a solid roof to protect the vessel and is attached to the dock itself or the substrate of the lake.

Cumulative impact - The impact on the environment resulting from the incremental impact of past, present, and reasonably foreseeable future actions taken together regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Degrade - To scale down in desirability or salability, to impair in respect to some physical property or to reduce in structure or function.

Development - 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 permanent or temporary project which interferes with the normal public use of the waters overlying lands subject to the SMA at any state of water level. "Development" does not include dismantling or removing structures if there is no other associated development or re-development. (See RCW 90.58.030(3a)).

DFW - the Washington State Department of Fish and Wildlife.

DNR - the Washington State Department of Natural Resources.

Dock - A floating moorage structure.

Dredge spoil or Dredge material - The material removed by dredging.

Dredging - Excavation or displacement of the bottom or shoreline of a water body by mechanical or hydraulic machines to maintain channel depths or berths for navigational purposes or to cleanup polluted sediments.

Dwelling unit - A single unit providing complete, independent living facilities for one or more persons, not to exceed one family, and includes permanent provisions for living, sleeping, eating, cooking and sanitation.

EIS - Environmental Impact Statement.

Ecological functions - The work performed or the 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.

Ecology - The Washington State Department of Ecology.

Ecosystem-wide processes - The suite of naturally occurring physical and geologic processes of erosion, transport, and deposition; and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat and the associated ecological functions.

EII - Terminal section of a pier which typically extends perpendicular to the pier walkway. These sections can be either on fixed-piles or floating docks and are typically wider than the pier walkway.

Emergency - An unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with the SMP. Emergency construction is construed narrowly as that which is necessary to protect property from damage by the elements. For a complete definition of emergency, including required follow up actions and exclusions from this definition, see RCW 90.58.030(3eiii) and WAC 173-27-040(2d)).

Endangered Species Act (ESA) - A federal law intended to protect any fish or wildlife species that are threatened with extinction throughout all or a significant portion of its range. (See 16 U.S.C. § 1531 et seq.).

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

Environmental impacts - The effects or consequences of actions on the natural and built environments, including effects upon the elements of the environment listed in the State Environmental Policy Act. (See WAC 197-11-600 and WAC 197-11-444).

Environmentally Sensitive Areas Ordinance 362, City of Lakewood - This ordinance provides the goals, policies, and implementing regulations for protecting the designated critical areas of the City. The ordinance addresses environmentally sensitive area development controls; measures important for protecting and preserving these resources; preventing or mitigating cumulative adverse environmental impacts to critical areas;

and serves to alert the public to the development limitations of critical areas.

Environments or Shoreline Environment - Designations given to specific shoreline areas based on the existing development pattern, the biophysical capabilities and limitations, and the goals and aspirations of local citizenry, as part of an SMP.

Erosion - The wearing away of land by of natural forces.

Exaction – A concept in real property law where a condition for development is imposed on a parcel of land that requires the developer to mitigate anticipated negative impacts of the development.

Excavated moorage slip - A boat mooring location that is man-made in that it requires dredging or excavation of excess sediment to afford access. Such slips may often involve dredging of the lake bottom waterward of the OHWM, or may include excavating a segment of the existing shoreline to enable moorage of a boat.

Excavation - The artificial movement of earth materials.

Exemption - Specific developments exempt from the definition of substantial developments and the Substantial Development Permit process of the SMA. An activity that is exempt from the substantial development provisions of the SMA must still be carried out in compliance with policies and standards of the Act and the local SMP. CUPs and/or Variances may also still be required even though the activity does not need a Substantial Development Permit. For a complete list of exemptions, see WAC 173-27-040.

Fair market value - The open market bid price for conducting the work, using the equipment and facilities, and purchasing the goods, services and materials necessary to accomplish a development, normally the cost of hiring a contractor to undertake the development from start to finish, including the cost of labor, materials, equipment and facility usage, transportation and contractor overhead and profit. The fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials (See WAC 173-27-030(8)).

Feasible - An action, such as a development project, mitigation, or preservation requirement, that meets 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;
- (b) The action provides a reasonable likelihood of achieving its intended purpose; and
- (c) The action does not physically preclude achieving the project's primary intended legal use.

In cases where certain actions are required 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 time frames.

Fill - The addition of soil, sand, rock, gravel, sediment, earth retaining structure, or other material to an area

waterward of the OHWM, in wetland, or on shorelands in a manner that raises the elevation or creates dry land.

Finger pier or fingers - A narrow extension to a fixed-pile pier, usually extending perpendicular to the pier walkway along with an ell to form an enclosed area for boat moorage.

Float - A floating structure that is moored, anchored, or otherwise secured in the water offshore and that may be associated with a fixed-pile pier, or may be a standalone structure, such as platforms used for swimming and diving.

Floating dock - A fixed structure floating upon a water body for the majority of its length and connected to shore.

Floating home - A structure designed and operated substantially as a permanently based over water residence, typically served by permanent utilities and semi-permanent anchorage/moorage facilities. Floating homes are not vessels and lack adequate self-propulsion and steering equipment to operate as a vessel.

Floodplain - The land area susceptible to inundation with a one percent (1%) chance of being equaled or exceeded in any given year (synonymous with 100-year floodplain). The limits of this area are based on flood regulation ordinance maps or a reasonable method that meets the objectives of the SMA (See WAC 173-22-030(2)).

Floodway - The area, as identified in an SMP, that has been established in Federal Emergency Management Agency flood insurance rate maps (FIRM) or floodway maps. The floodway does not include lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state.

Geotechnical report or Geotechnical analysis - A scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology; the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes; conclusions and recommendations regarding the effect of the proposed development on geologic conditions; the adequacy of the site to be developed; the impacts of the proposed development; alternative approaches to the proposed development; and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers or geologists who have professional expertise about the regional and local shoreline geology and processes.

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

Grassy swale - A vegetated drainage channel that is designed to remove various pollutants from storm water runoff through biofiltration.

Groin - A barrier-type structure extending from, and usually perpendicular to, the backshore into a water body, to protect a shoreline and adjacent upland by influencing water movement and/or material deposits. This is

accomplished by building or preserving an accretion beach on its up drift side by trapping littoral drift. A groin is relatively narrow in width but varies greatly in length. A groin is sometimes built in a series as a system and may be permeable or impermeable, high or low, and fixed or adjustable.

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

Hearing Examiner - The Hearing Examiner of the City of Lakewood.

Height - The distance measured from the average grade level to the highest point of a structure; provided, that television antennas, chimneys and similar appurtenances shall not be used in calculating height, except where it obstructs the view of a substantial number of residences on areas adjoining such shorelines. Temporary construction equipment is excluded in this calculation (See WAC 173-27-030(9)).

Heliport - Any landing area or other facility used or intended to be used by private aircraft for landing or taking off of aircraft, including all associated or necessary buildings and open spaces.

Hoist - A device used for lifting or lowering a load by means of a drum or lift-wheel around which rope, fiber or chain wraps. It may be manually operated, electrically or pneumatically driven.

Houseboat - A vessel, principally used as an over water residence, licensed and designed for use as a mobile structure with detachable utilities or facilities, anchoring, and the adequate self-propulsion and steering equipment to operate as a vessel. Principal use as an overwater residence means occupancy in a single location, for a period exceeding two (2) months in any one calendar year. This definition includes live aboard vessels.

Impervious surface - Any horizontal surface artificially covered or hardened so as to prevent or impede the water percolation into the soil mantle including, but not limited to, roof tops, swimming pools, or paved or graveled roads, walkways or parking areas, but excluding landscaping and surface water retention/detention facilities.

In-stream structure - A structure placed by humans within a stream or river waterward of the OHWM that either causes or has the potential to cause water impoundment or water flow diversion, obstruction, or modification. In-stream structures may include structures used for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service, fish habitat enhancement, or other purpose.

Joint Use Pier or Dock - A pier, dock, or secured float or floats for vessel moorage, fishing, or other water use that is shared by two (2) or more residences, up to four (4) residences. Joint use moorage serving more than four residences is considered a community pier or dock.

Lake - A body of standing water in a depression of land or expanded part of a river, including, but not limited to, reservoirs of twenty (20) acres or greater in total area. A lake is bounded by the OHWM or, where a stream enters a lake, the extension of the elevation of the lake's OHWM within the stream (WAC 173-20-030; WAC 173-22-030(4)).

Landfill - The creation of, or addition to, a dry upland area (landward of the OHWM) by the addition of rock, soil, gravels and earth or other material, but not solid or hazardous waste.

Landscaping - Vegetation ground cover including shrubs, trees, flower beds, grass, ivy and other similar plants and including tree bark and other materials which aid vegetative growth and maintenance.

Launching rail - See Boat launch or ramp.

Launching ramp - See Boat launch or ramp.

LID - Low Impact Development.

Littoral - Living or occurring on the shore.

Littoral drift - The mud, sand, or gravel material moved parallel to the shoreline in the nearshore zone by waves and currents. **Marina** - A private or public facility providing the purchase or lease of a slip for storing, berthing and securing boats or watercraft, including both long-term and transient moorage, including, but not limited to, accessory facilities that provide incidental services to marina users, such as waste collection, boat sales or rental activities, and retail establishments providing fuel service, repair or service of boat. Community docks and piers, which serve specific upland parcels and which do not offer moorage for purchase by the general public, shall not be considered to be marinas.

Lot Width – The average horizontal distance between the side lot lines, ordinarily measured parallel to the front lot lines, except that portion of a flag lot that usually forms an extended access way to a street right-of-way.

Low Impact Development (LID) - A stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

May - Signifies an action is permitted but not required, provided it conforms to the provisions of this SMP.

Mitigation or Mitigation sequencing - The process of avoiding, reducing, or compensating for the environmental impact(s) of a proposal through the following sequence of steps, listed in order of priority: (See WAC 197-11-768 and WAC 173-26-201(2)(e)(1)).

- (a) Avoiding the impact all together by not taking a certain action or parts of an action;
- (b) Minimizing impacts by limiting the degree or magnitude of the action by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations;
- (e) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
- (f) Monitoring the impact and the compensation projects and taking appropriate corrective measures.

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

Moorage Piles - Structural members driven into the lake bed to serve as a stationary moorage point. They are typically used for moorage of small boats in the absence of, or instead of, a dock or pier. In some cases, moorage piles may be associated with a dock or pier.

Multi-family dwelling or Multi-family residence - A building containing two (2) or more dwelling units, including, but not limited to, duplexes, triplexes, four-plexes, apartment buildings and condominium buildings.

Must - Signifies an action is required.

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

Nonconforming use, development, structure, or lot - (a) "Nonconforming use" means an existing shoreline use that was lawfully established prior to the effective date of the act or the applicable master program, but which does not conform to present use regulations due to subsequent changes to the master program. (b) "Nonconforming development" or "nonconforming structure" means an existing structure that was lawfully constructed at the time it was built but is no longer fully consistent with present regulations such as setbacks, buffers or yards; area; bulk; height or density standards due to subsequent changes to the master program. (c) "Nonconforming lot" means a lot that met dimensional requirements of the applicable master program at the time of its establishment but now contains less than the required width, depth or area due to subsequent changes to the master program (See WAC 173-27-080).

Normal maintenance – Those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition.

Normal repair – To restore a development to a state comparable to its original condition, including but not limited to its size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to shoreline resource or environment.

Ordinary High Water Mark (OHWM) - The mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or Ecology provided, that in any area where the OHWM cannot be found, OHWM adjoining fresh water shall be the line of mean high water. (See RCW 90.58.030(2)(c) and WAC 173-22-030(5)).

Overwater structure - Any device or structure projecting over the OHWM, including, but not limited to, piers, docks, floats, and moorage.

Permit or Shoreline Permit - Any substantial development permit, CUPs or variance, or revision, or any combination thereof, authorized by the Act (See WAC 173-27-030(13)).

Pier - A fixed, pile-supported moorage structure.

Primary structure – The structure associated with the principal use of the property. This also includes single family residential appurtenant structures (such as a garages, attached decks, driveways, utilities, and septic tanks and drainfields) that cannot feasibly be relocated. It does not include structures such as tool sheds, gazebos, greenhouses or other ancillary residential improvements that can feasibly be moved landward to prevent the erosion threat.

Priority habitat - A habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes:

- 1) Comparatively high fish or wildlife density;
- 2) Comparatively high fish or wildlife species diversity;
- 3) Fish spawning habitat;
- 4) Important wildlife habitat;
- 5) Important fish or wildlife seasonal range;
- 6) Important fish or wildlife movement corridor;
- 7) Rearing and foraging habitat;
- 8) Important marine mammal haul-out;
- 9) Refuge habitat;
- 10) Limited availability;
- 11) High vulnerability to habitat alteration;
- 12) Unique or dependent species; or
- 13) Shellfish bed.

A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (such as oak woodlands or eelgrass meadows); by a successional stage (such as, old growth and mature forests); or by a specific habitat element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags) of key value to fish and wildlife. A priority habitat may contain priority and/or non-priority fish and wildlife.

Priority species - Species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels, and that meet any of the criteria listed below:

- (a) State-listed or state proposed species. State-listed species are those native fish and wildlife species legally designated as endangered (WAC 232-12-014), threatened (WAC 232-12-011), or sensitive (WAC 232-12-011). State proposed species are those fish and wildlife species that will be reviewed by DFW (POL-M-6001) for possible listing as endangered, threatened, or sensitive according to the process and criteria defined in WAC 232-12-297.
- (b) Vulnerable aggregations. Vulnerable aggregations include those species or groups of animals susceptible to significant population declines, within a specific area or statewide, by virtue of their inclination to congregate. Examples include heron colonies, seabird concentrations, and marine mammal congregations.
- (c) Species of recreational, commercial, and/or tribal importance. Native and nonnative fish, shellfish, and wildlife species of recreational or commercial importance and recognized species used for tribal ceremonial and subsistence purposes that are vulnerable to habitat loss or degradation.

(d) Species listed under the federal Endangered Species Act as proposed, threatened, or endangered.

Professional engineer - A person who, by reason of his or her special knowledge of the mathematical and physical sciences and the principles and methods of engineering analysis and design, acquired by professional education and practical experience, is qualified to practice engineering and is licensed by the State of Washington or another state.

Proposed, Threatened, and Endangered Species - Those native species that are proposed to be listed or are listed by DFW as threatened or endangered, or that are proposed to be listed or are listed as threatened or endangered under the federal Endangered Species Act.

Public access - 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. (See WAC 173-26- 221(4)).

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

Public use - Public use means to be made available daily to the general public on a first-come, first-served basis, and may not be leased to private parties on any more than a day use basis. (See WAC 332-30-106)).

RCW - Revised Code of Washington.

Residential development - Development which is primarily devoted to or designed for use as a dwelling(s), including, but not limited to, single-family development, multi-family development, and the creation of new residential lots through land division.

Recreational float - A floating structure that is moored, anchored, or otherwise secured in the water offshore and that is generally used for recreational purposes such as swimming and diving.

Recreational Use or Development - Facilities such as parks, trails, and pathways, whether public, private or commercial, that provide a means for relaxation, play, or amusement. For the purposes of this SMP, recreational facilities are divided into two categories:

- 1) Water-oriented (i.e. - moorage facilities, fishing piers, recreational floats, trails, swimming beaches, overlooks, etc.); and
- 2) Non-water-oriented (i.e. - sports fields, golf courses, sport courts, etc.).

Restoration or Ecological restoration - The reestablishment or upgrading of impaired ecological shoreline processes or functions 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.

Riparian - Of, on, or pertaining to the banks of a river, stream or lake.

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

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

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

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

SEPA - see State Environmental Policy Act

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

Setback - A required open space, specified in SMPs, measured horizontally upland from and perpendicular to the OHWM. “Setback” means the distance a building structure is placed behind a specified limit such as a lot line or shoreline buffer.

Shall - Signifies an action is required.

Shorelands or Shoreland Areas - Those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the OHWM; floodways and contiguous flood plain areas landward two hundred (200) feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of the SMA. Shorelands in the City are limited to those areas within two hundred (200) feet of the OHWM of American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek and any associated wetlands.

Shoreline Administrator - The City of Lakewood Planning and Community Development Director or his/her designee, charged with the responsibility of administering this SMP.

Shoreline jurisdiction - All of the geographic areas covered by the SMA, related rules and the applicable SMP. In the City, shoreline jurisdiction includes American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek, those areas within two hundred (200) feet of the OHWM of these water bodies, and any associated wetlands. See definitions of Shorelines, Shorelines of the state, Shorelines of statewide significance, Shorelands, and Wetlands.

Shoreline Management Act (SMA) - Chapter 90.58 RCW, as amended. Washington law adopted to prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines.

Shoreline Master Program (SMP) - The comprehensive use plan and related use regulations used by local

governments to administer and enforce the permit system for shoreline management. SMPs must be developed in accordance with the policies of the SMA, be approved and adopted by the state, and be consistent with the rules (WACs) adopted by Ecology.

Shoreline Master Program Guidelines - The Shoreline Master Program (SMP) Guidelines are state standards which local governments must follow in drafting their shoreline master programs. The Guidelines translate the broad policies of the Shoreline Management Act (RCW 90.58.020) into standards for regulation of shoreline uses. The guidelines are found in WAC 173-26, Part III.

Shoreline modification - Those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element such as a dike, breakwater, pier, weir, dredged basin, fill, bulkhead, or other shoreline structure. They can also include other actions, such as clearing, grading, or application of chemicals or significant vegetation removal.

Shoreline stabilization - Actions taken to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, tides, wind or wave action. These actions include structural measures such as bulkheads and nonstructural methods such as building setbacks or relocation of structures.

Shoreline vegetation management plan (SVMP) - A plan prepared by a qualified professional that identifies appropriate mitigation, performance assurances, and maintenance and monitoring requirements necessary to assure no net loss of ecological functions.

Shorelines - All of the water areas of the state, including reservoirs and their associated shorelands, together with the lands underlying them, except those areas excluded under RCW 90.58.030(2)(e).

Shorelines Hearings Board - A state-level quasi-judicial body, created by the SMA, which hears appeals by any aggrieved party on the issuance of a shoreline permit, enforcement penalty and appeals by local government. (See RCW 90.58.170; 90.58.180).

Shorelines of statewide significance - A select category of shorelines of the state, defined in RCW 90.58.030(2)(f), where special use preferences apply and greater planning authority is granted by the SMA. SMP policies, use regulations and permit review must acknowledge the use priorities for these areas established by the SMA. (See RCW 90.58.020). In Lakewood, American Lake is the only lake considered to have shorelines of statewide significance and subject to RCW 90.58.

Shorelines of the state - Shorelines and shorelines of statewide significance.

Should - Signifies an action is required unless there is a demonstrated, compelling reason, based on policy of the SMA and this SMP, against taking the action.

Sign - A board or other display containing words and/or symbols used to identify or advertise a place of business or to convey information. Excluded from this definition are signs required by law and the flags of national and state governments.

Significant vegetation removal – The removal or alteration of trees, shrubs, and/or ground cover by clearing, grading, cutting, burning, chemical means, or other activity that causes significant ecological impacts to functions provided by such vegetation. The removal of invasive or noxious weeds does not constitute significant vegetation removal. Tree pruning, not including tree topping, where it does not affect ecological functions, does not constitute significant vegetation removal.

Single-family residence - A detached dwelling designed for and occupied by one (1) family including those structures and developments within a contiguous ownership which are a normal appurtenance (See Chapter 4, Section D(6)(c)(11)).

SMA - see Shoreline Management Act.

SMP - see Shoreline Master Program.

Soil bioengineering - An applied science that combines structural, biological and ecological concepts to construct living structures that stabilize soils to control erosion, sedimentation and flooding using live plant materials as a main structural component.

Solid waste - All garbage, rubbish trash, refuse, debris, scrap, waste materials and discarded materials of all types, whether the sources be residential or commercial, exclusive of hazardous wastes, and including any and all source-separated recyclable materials and yard waste.

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

Stream - A naturally occurring body of periodic or continuously flowing water where the mean annual flow is greater than twenty (20) cubic feet per second and the water is contained within a channel (See WAC 173-22-030(8)).

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

Substantial Development - Any development of which the total cost or fair market value exceeds seven thousand and forty seven dollars (\$7,047), or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold established in this definition must be adjusted for inflation by the Washington State Office of Financial Management every five (5) years based upon changes in the consumer price index during that time period. "Consumer price index" means, for any calendar year, that year's annual average consumer price index, Seattle, Washington area, for urban wage earners and clerical workers, all items, compiled by the Bureau of Labor and Statistics, United States Department of Labor. 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. A list of activities and developments that shall not be considered substantial development is provided in Chapter 7 (See WAC 173- 27-040(2)(a)).

SVMP - see Shoreline Vegetation Management Plan.

Terrestrial - Of or relating to land as distinct from air or water.

Upland - The dry land area above and landward of the OHWM.

Utilities - Services and facilities that produce, transmit, store, process or dispose of electric power, gas, water, stormwater, sewage and communications.

Utilities, Primary - Utilities comprised of trunk lines or mains that serve neighborhoods, areas and cities. Examples include solid waste handling and disposal sites, water transmission lines, sewage treatment facilities and mains, power generating or transmission facilities, gas storage and transmission facilities and stormwater mains and regional facilities.

Utilities, Secondary - Utilities comprised of small-scale distribution and collection facilities connected directly to development within the shoreline area. Examples include local power, telephone, cable, gas, water, sewer and stormwater service lines.

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

WAC - Washington Administrative Code.

Water-dependent use - A use or a portion of a use which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations, including, but not limited to, moorage structures (including those associated with residential properties), ship cargo terminal loading areas, ferry and passenger terminals, barge loading facilities, ship building and dry docking, marinas, aquaculture, float plane facilities and sewer outfalls.

Water-enjoyment use - A recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design, and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

Water-oriented use - Refers to any combination of water-dependent, water-related, and/or water enjoyment uses.

Water quality - The physical characteristics of water within shoreline jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics. "Water quantity" refers only to development and uses regulated and affecting water quantity, such as impermeable surfaces and storm water handling practices. Water quantity does not mean the withdrawal of ground water or diversion of

surface water pursuant to RCW 90.03.250 through RCW 90.03.340.

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

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

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

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

Shoreline Restoration Plan Component of the Shoreline Master Program for the City of Lakewood

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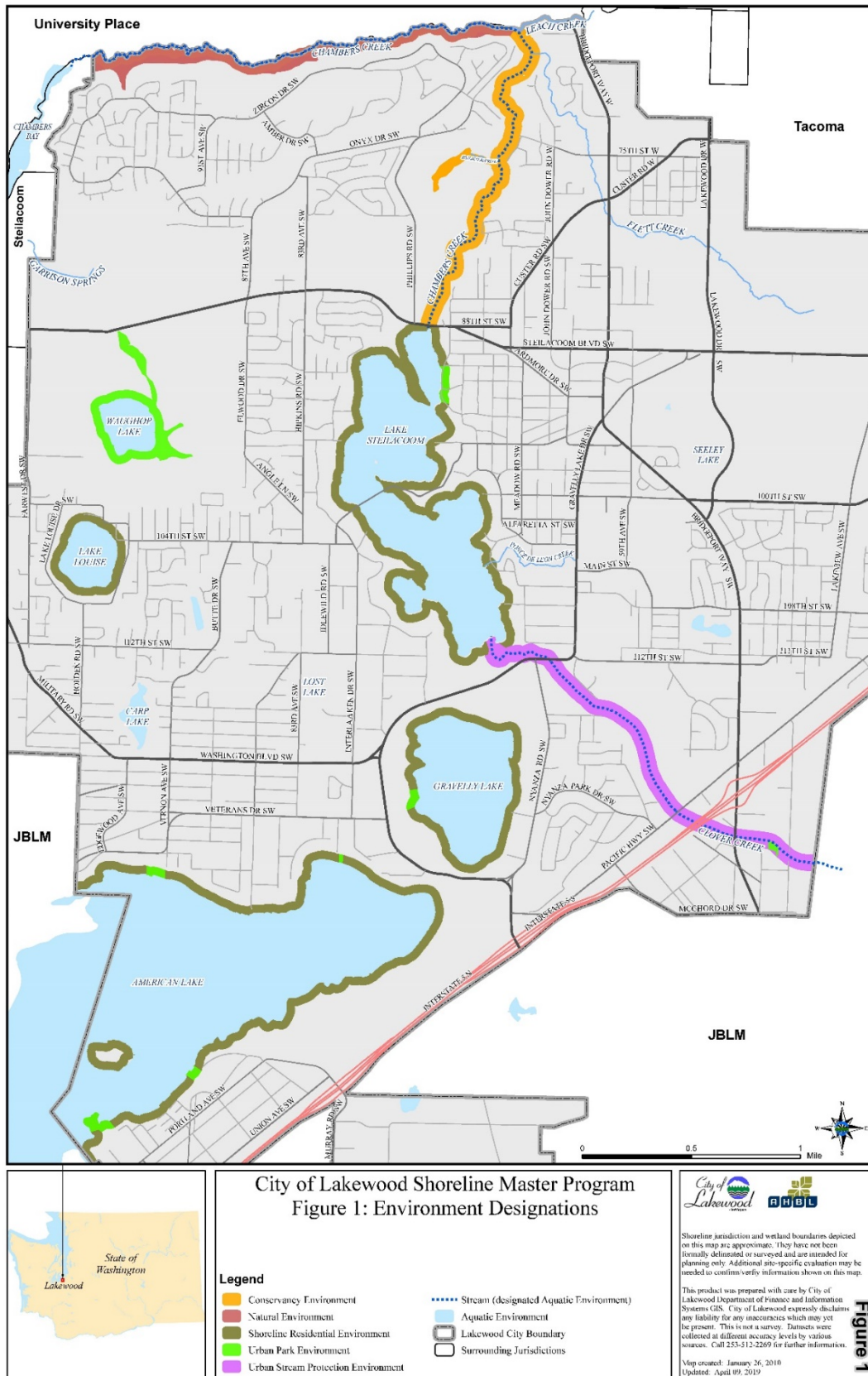
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Figure 1: Shoreline Master Program Environmental Designations



SHORELINE MASTER PROGRAM UPDATE

SHORELINE RESTORATION PLAN

1. INTRODUCTION

A jurisdiction's Shoreline Master Program applies to activities in the jurisdiction's shoreline zone. Activities that have adverse effects on the ecological functions and values of the shoreline must provide mitigation for those impacts. By law, the proponent of that activity is not required to return the subject shoreline to a condition that is better than the baseline level at the time the activity takes place. How then can the shoreline be improved over time in areas where the baseline condition is severely, or even marginally, degraded?

Section 173-26-201(2)(f) WAC of the Shoreline Master Program Guidelines¹ says:

“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 nonregulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or nonregulatory 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.”

However, degraded shorelines are not just a result of pre-Shoreline Master Program activities, but also of unregulated activities and exempt development. The new Guidelines also require that “[l]ocal master programs shall include regulations ensuring that exempt development in the aggregate will not cause a net loss of ecological functions of the shoreline.” While some actions within shoreline jurisdiction are exempt from a permit, the Shoreline Master Program should clearly state that those actions are not exempt from compliance with the Shoreline Management Act or the local Shoreline Master Program. Because the shoreline environment is also affected by activities taking place outside of a specific local master program's jurisdiction (e.g., outside of city limits, outside of the shoreline zone within the city), assembly of actions, programs and policies within the larger watershed that have the potential to impact shoreline ecological functions can be essential for understanding how the City fits into the larger context. The latter is critical when establishing realistic goals and objectives for dynamic and highly inter-connected environments.

As directed by the Guidelines, the following discussions provides a very brief summary of baseline shoreline conditions, lists restoration goals and objectives, and discusses existing or potential programs and projects that positively impact the shoreline environment. Finally, anticipated scheduling, funding, and monitoring of these various comprehensive restoration elements are provided. In total, implementation of the Shoreline Master Program (with mitigation of project-related impacts) in combination with this Restoration Plan (for restoration of lost ecological functions that occurred prior to a specific project) should result in a net improvement in the City of Lakewood's shoreline environment in the long term.

In addition to meeting the requirements of the Guidelines, this Restoration Plan is also intended to

¹ The Shoreline Master Program Guidelines were prepared by the Washington Department of Ecology and codified as WAC 173-26. The Guidelines translate the broad policies of the Shoreline Management Act (RCW 90.58.020) into standards for regulation of shoreline uses. See <http://www.ecy.wa.gov/programs/sea/sma/guidelines/index.html> for more background.

support the City's or other non-governmental organizations' applications for future grant funding to implement elements of this Restoration Plan.



Lakewood volunteers working in 2017 on shoreline restoration

2. SHORELINE ANALYSIS AND CHARACTERIZATION SUMMARY

2.1 Watershed Context and Shoreline Boundary

The City of Lakewood retained AHBL and Otak to conduct an inventory and characterization of the City's shorelines in 2009 and 2010. The purpose of the shoreline inventory was to facilitate the City's compliance with the State of Washington's Shoreline Management Act (SMA) and updated Shoreline Master Program Guidelines. The inventory describes existing physical and biological conditions in the shoreline zone within City limits, including recommendations for restoration of ecological functions where they are degraded. The full Shoreline Analysis Report characterizes shoreline function for each waterbody and describes the areas that fall within the shoreline jurisdiction of the City.

2.2 Biological Resources and Critical Areas

As described in the Shoreline Analysis Report, the shoreline jurisdiction contains a variety of biological resources and environmentally critical areas, including wetlands, geologic hazards, aquifer recharge areas, wellhead protection zones, and critical fish habitat. Wetlands within the shoreline jurisdiction are primarily confined to the northern reaches of Chambers Creek and adjacent to Waughop Lake, with limited wetlands along Clover Creek. Frequently flooded areas are found along Chambers and Clover Creeks.

Steep slopes and geologically hazardous areas are scattered throughout the city, and each water body's associated jurisdiction contains a small amount of steep slope areas, with the exception of Clover Creek, which contains no documented geologic hazards.

The entire City of Lakewood lies within an aquifer recharge area. Portions of Clover Creek and the shoreline jurisdictions associated with American Lake, Lake Steilacoom, Gravelly Lake, Lake Louise, and Waughop Lake fall within a 1-year wellhead protection zone.

Steelhead of the Puget Sound Distinct Population Segment (DPS) (U.S. Federal Register, 11 May 2007) is the only federally listed salmonid species that occurs in the City of Lakewood. Steelhead presence is documented in Chambers Creek and their presence is assumed in Lake Steilacoom and Clover Creek

(StreamNet 2010). Additionally, Puget Sound-Strait of Georgia coho salmon (a PHS Species) also occur in the basin and are listed as a Species of Concern (U.S. Federal Register, 15 April 2004), indicating that they are under less active consideration for formal listing. Coho spawn in Chambers and Clover Creeks and their presence is documented in Lake Steilacoom (StreamNet 2010). Critical habitat for Puget Sound steelhead within the City of Lakewood was finalized in 2016 (Federal Register 2016). The Chambers Bay estuary fish ladder traps are used at certain times to capture upstream adult migrants, mainly Chinook, as part of a segregated hatchery and estuary fishery program. The fish ladders are left open during the remainder of the year to allow passage of other diadromous species (e.g., chum, coho, steelhead and cutthroat trout). Chinook salmon are usually not released upstream, but spawn are taken to Garrison Springs Hatchery for rearing. The Garrison Springs Hatchery is located in the City of Lakewood near Chambers Creek.

Washington Department of Fish and Wildlife (WDFW) mapping of Priority Habitat and Species (PHS) indicates the presence of a number of habitat areas in the shoreline jurisdiction, including the following:

- WDFW riparian zones and fish species along Chambers Creek, Clover Creek, and Lake Steilacoom.
- WDFW waterfowl concentration areas along Chambers Creek and within Lake Steilacoom, American Lake, Gravelly Lake, Lake Louise, and Waughop Lake.
- WDFW urban natural open space areas along Chambers Creek and surrounding American Lake and Waughop Lake.

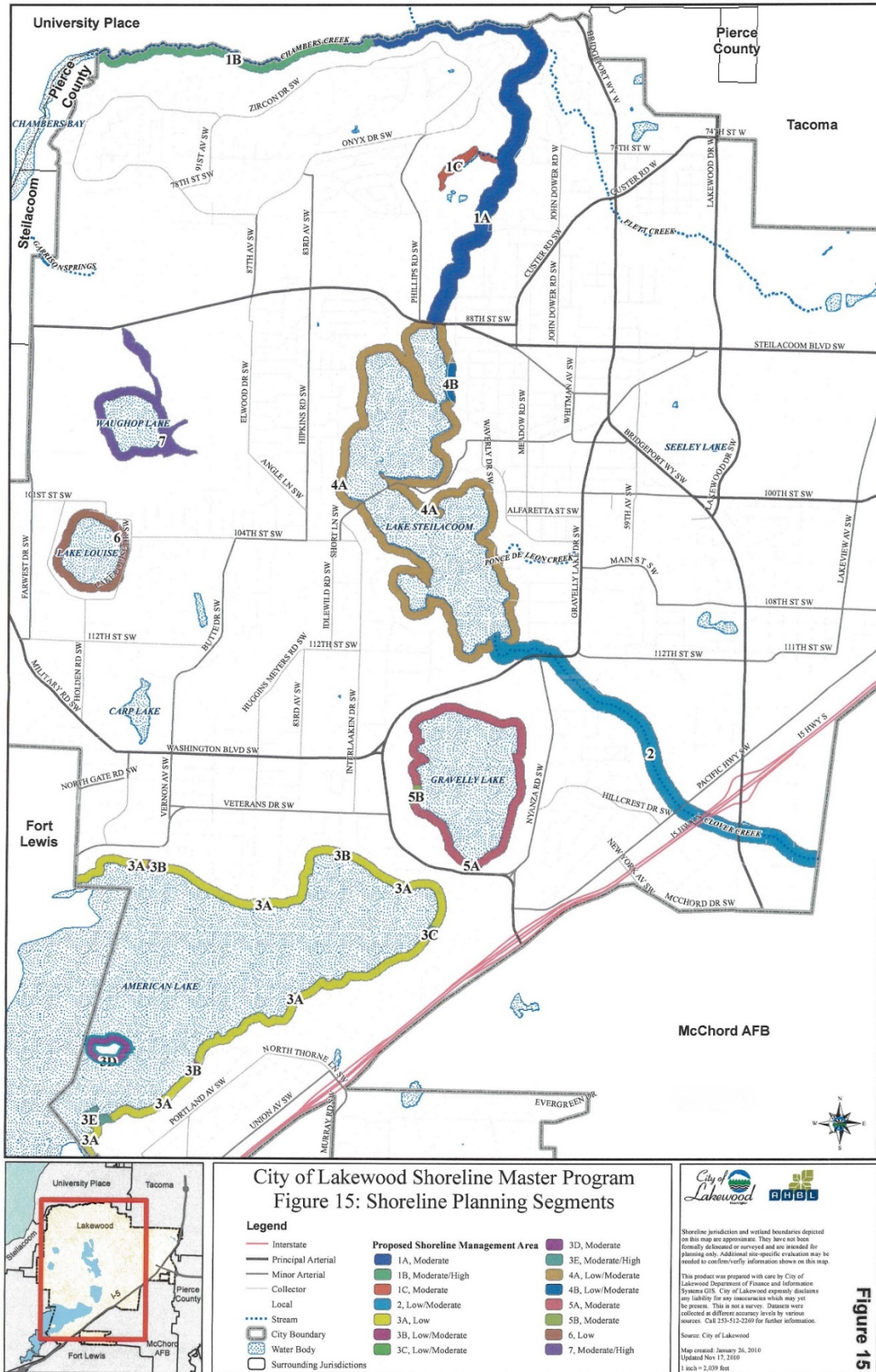
2.3 Summary of Ecological Functions

The following briefly summarizes the overall health of ecological functions within specific segments of the Shoreline Management Area.

Shoreline Planning Segments		
Segment	Approximate (feet)	Approximate Area (acres)
1—Chambers Creek	14,334	17.3
Segment 1A	8,055	11.8
Segment 1B—includes Chambers Creek Park	4,994	4.7
Segment 1C—Wetland at Game Reserve)	1,283	0.8
2—Clover Creek	7,089	9.4
3—American Lake	27,768	11.2
3A—Residential	21,802	9.2
3B—City Parks (American Lake North, Lakeland, and Harry Todd Parks)	985	0.4
3C—Tacoma Golf & Country Club	270	0.2
3D—Silcox Island	3,284	1.0
3E—Open space (south of Silcox island)	1,427	0.4
4—Lake Steilacoom	32,669	13.2
4A—Residential	31,745	12.8

Shoreline Planning Segments		
Segment	Approximate (feet)	Approximate Area (acres)
4B—Edgewater Park	924	0.4
5—Gravelly Lake	10,932	4.8
5A—Residential	10,462	4.6
5B—Lakewold Gardens	470	0.2
6—Lake Louise	4,975	2.4
7—Waughop Lake	4,670	3.5
TOTAL	81,014 feet	61.6 acres

Figure 2: Shoreline Planning Segments



Chambers Creek - Segment 1A - Overall segment rating = Moderate

Segment 1A consists of low-density residential housing. Aerial photos indicate that a majority of the riparian buffer has been left intact, providing a largely forested area with some houses/buildings interspersed.

Chambers Creek - Segment 1B - Overall segment rating = Moderate/High

Segment 1B is the most natural condition segment in Lakewood's shoreline jurisdiction and has an intact riparian buffer that protects the stream banks from erosion as well as providing shade, habitat (in stream and on the banks), and water quality improvement.

Chambers Creek - Segment 1C - Overall segment rating = Low/Moderate

Segment 1C is associated with the wetland on the left (south) bank of Chambers Creek, adjacent to Segment 1A. Some of the functions that wetland are able to provide are ranked low simply because the wetland does not have the opportunity to provide the function. This includes organic matter recruitment because the wetland has little vegetation, most of which consists of emergent plants, this in turn effects the wetlands capability to maintain cool water temperatures. This wetland presents excellent opportunity for restoration, contingent on agreement with WDFW, who operates a hatchery in the area and currently maintains the area as wildlife habitat.



Spring-fed creek in concrete channel, Lakewood hatchery grounds (27 Feb. 2019)

Clover Creek - Overall segment rating = Low/Moderate

Clover Creek and its shorelines have been greatly compromised by past residential development. Approximately half of this segment in the City of Lakewood is bordered predominantly by single family homes and multi-family apartments and condominiums. There is also commercial development,

including the section that runs through a long culvert under I-5. The lower half of the segment located in the City has been built out with high-density residential housing.

American Lake – Segment 3A - Overall segment rating = Low

The residential segment of American Lake ranks low for overall functions. The high level of shoreline modification has the largest, overarching impact on the functions of the lake and shoreline. The shoreline modifications impede wave attenuation, organic matter recruitment, the ability of the shoreline to remove toxins, and have compromised the functions provided by shallow groundwater.

American Lake – Segment 3B/C - Overall segment rating = Low/Moderate

While the parks are in a more natural condition than the residential segment, they have still been altered and have moderate amount of impervious surface, some shoreline modification, and compacted soils, all of which compromised the ability to provide necessary shoreline functions.

American Lake – Segment 3D - Overall segment rating = Moderate

Although Silcox Island has been moderately built out with residential structures and has some shoreline modification, the island has mostly retained its forested canopy and has not had as much modification to the soil structure on the island.

American Lake – Segment 3E - Overall segment rating = Moderate/High

The forested peninsula south of Silcox Island has been left in a natural condition for many decades. It has a forested canopy that provides special habitat niches both in the canopy and on the lake edge. Because the lake has such a high amount of development, this parcel provides a high quality area among an otherwise developed area.

Lake Steilacoom – Segment 4A - Overall segment rating = Low/Moderate

The residential area of Lake Steilacoom is similar to that of the other lakes in Lakewood with high-density residential housing surrounding the lakeshore. Like American Lake, the shoreline has been extensively armored, reducing the ability of the shoreline to perform many shoreline functions.



Pierce County public GIS image of lower Clover Creek and Steilacoom Lake

Lake Steilacoom – Segment 4B - Overall segment rating = Low/Moderate

Edgewater Park is a small portion of the overall size of Lake Steilacoom and represents the same overall functions and scores. It does have the opportunity to provide organic matter and it could be enhanced by the City to remove invasive Himalayan blackberry, English ivy, and yellow flag iris. Replacement of non-native invasive species with native trees and shrubs would be beneficial..

Gravelly Lake – Segment 5A/B - Overall segment rating = Moderate

The residential segment of Gravelly Lake is fully developed with residential housing and armored shorelines, reducing the functions the shoreline is able to provide similar to the other constructed shorelines. Segment 5B was included in the functions with 5A because it is also built out, but is managed as a 10-acre garden open to the public. Therefore, the functions are the same or similar, but its land use is different from the rest of the lake.

Lake Louise – Segment 6 - Overall segment rating = Low

Lake Louise is surrounded by single-family housing, boat docks, and armored shoreline. The functions performed by an intact shoreline have almost completely been modified or heavily compromised on Lake Louise. Lake Louise also suffers from water quality issues associated with excessive nutrients causing toxic algae blooms.

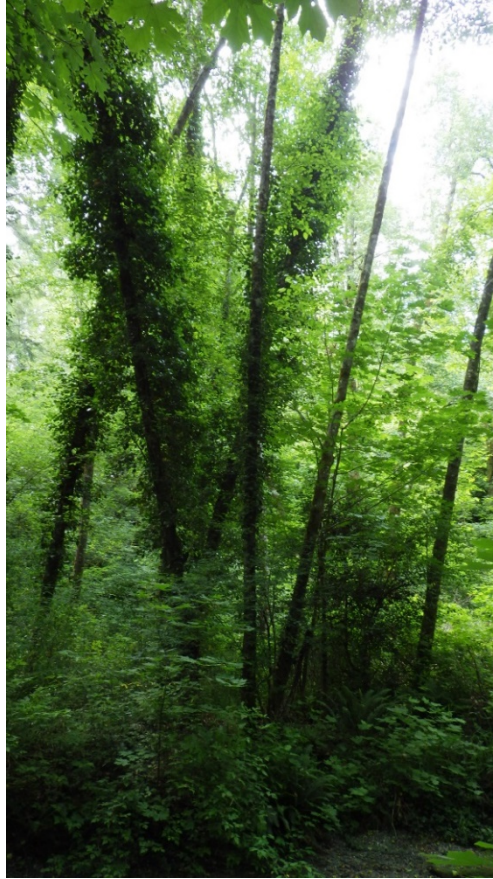
Waughop Lake – Segment 7 - Overall segment rating = Moderate/High

Waughop Lake has an intact shoreline and is able to provide nearly all of the functions of a normally functioning shoreline. The lake quality has suffered due to historic use of the lake as a dumping ground for animal waste, as well as urban development. Due to the risk to human health, water quality improvement for Waughop Lake should be a primary focus for the City of Lakewood.

2.4 Summary of Degraded Shoreline Areas

Based on the evaluation of shoreline ecological functions summarized in Section 2.3, the following areas have been identified as being degraded, and restoration efforts in these locations should be prioritized.

Chambers Creek – The undeveloped canyon area is under threat from invasive plants, particularly English ivy. Steps should be taken to curb and remove these invasive species before the problem becomes more extensive and difficult to eradicate. Similar issues occur in upstream reaches.



Ivy-covered trees, Chambers Creek canyon area (14 June 2018)

Clover Creek – Degraded areas along this stream start at the boundary with JBLM and include the commercially developed areas adjacent to I-5 and areas of residential development along the lower half of the reach. Re-establishment of native riparian buffers along with installation of LWD where feasible should be the highest priority for restoration in this stream. Reconnecting the stream with remnant wetlands, including removal of concrete flow control structures, is highly recommended.

American Lake – Most of the shoreline of American Lake is considered degraded, due to the high level of residential development and associated shoreline modification. As described in Section 2.3, widespread armoring has impeded wave attenuation and organic matter recruitment functions, and encouraging property owners to transition from bulkheads to softer forms of shoreline stabilization should be the primary focus in this area, as well as restoration of shoreline buffer areas.

Lake Steilacoom – The residential portions of the Lake Steilacoom shoreline have been extensively armored. Similar to American Lake, the presence of this armoring has degraded ecological function, reduced shade and overhanging vegetation, and impeded wave attenuation and organic matter recruitment, including LWD. Encouraging transition to softer, non-structural forms of shoreline stabilization (i.e., natives trees and shrubs) should be the primary focus of restoration efforts in this reach. Enhancement of riparian buffer areas should also be a high priority.

Lake Louise – Residential development and shoreline armoring has degraded natural shoreline function along essentially all of the Lake Louise shoreline. Similar to Lake Steilacoom and American Lake, removal of hard armoring and transition to non-structural methods of shoreline stabilization should be of primary concern, as well as reduction of upland impervious surface and re-establishment of natural riparian buffers.

3. RESTORATION GOALS AND OBJECTIVES

3.1 Comprehensive Plan

The following goals and policies relating to shoreline and other natural features are presented in the City of Lakewood's Comprehensive Plan and they serve as the foundation of the City's restoration strategy.

1. Provide for the protection, conservation, and enhancement of habitat areas for fish and wildlife. (Goal LU-56)
2. Integrate environmental considerations into all planning efforts and comply with all state and federally mandated environmental legislation. (Policy LU-56.1)
3. Identify endangered or threatened species occurring within the City and preserve their habitat. (Policy LU-56.2)
4. Provide for identification and protection of wildlife habitats with an emphasis on protection of wildlife corridors and linking remaining habitat pockets within the City. (Policy LU-56.3)
5. Promote the restoration of riparian (streamside) areas to preserve and enhance their natural function of providing fish and wildlife habitat and protecting water quality. (Policy LU-56.4)
6. Preserve and protect native vegetation in riparian habitats and integrate suitable native vegetation in residential and commercial landscapes. (Policy LU-56.5)
7. Identify specific programs of stream restoration for Chambers, Clover, and Flett creeks. (Policy LU-56.6)
8. Identify the potential for restoring additional stretches of Ponce de Leon Creek. (Policy LU-56.7)
9. Provide fish and wildlife habitat of sufficient diversity and abundance to sustain existing indigenous fish and wildlife populations. (Policy LU-56.8)

3.2 Restoration Policy Development

Based on this policy guidance and the policy guidance provided by the Chambers-Clover Creek Watershed Council (CCWC) through the efforts described in Section 4 of this Restoration Plan, the City has developed the following restoration policies, in no particular order.

System-Wide Restoration Policies

1. Improve the water quality of all water bodies within the shoreline management area by managing the quality and quantity of stormwater in contributing systems and implementing Low Impact Development (LID) techniques to the maximum feasible extent, consistent at a minimum with the City's NPDES Phase II Stormwater Permit and the latest Washington Department of Ecology Stormwater Management Manual for Western Washington.
2. Reclaim and restore to the greatest extent feasible areas which are biologically and aesthetically degraded while maintaining appropriate use of the shoreline.

3. Increase quality, width and diversity of native vegetation in protected corridors adjacent to lake and stream habitats to provide safe migration pathways for fish and wildlife, food, nest sites, shade, perches, and organic debris. Strive to control non-indigenous plants or weeds that are proven harmful to native vegetation or habitats.
4. Continue to work collaboratively with other jurisdictions and stakeholders to implement the Chambers-Clover Creek Watershed Action Agenda and the WRIA 12 Plan.
5. Seek funding where possible for various restoration actions and programs from local sources and by working with other WRIA 12 jurisdictions, the CCWC, and other stakeholders to seek federal, state, grant and other funding opportunities.
6. Develop a public education plan to inform private property owners about the effects of land management practices and other unregulated activities (such as vegetation removal, pesticide/herbicide use, car washing) on fish and wildlife habitats.
7. Where feasible, protect, enhance, and encourage the restoration of lake areas and wetlands throughout the contributing basin where functions have been lost or compromised.
8. Seek opportunities to enhance and restore connections between lake, stream and wetland habitats.

SMA Restoration Policies

1. Target Waughop Lake (Fort Steilacoom Park) and Edgewater Park for restoration of shoreline natural resources (e.g., native plants) and functions while ensuring continued public access to the shoreline.
2. Protect natural areas and continue to identify and implement shoreline restoration projects and measures to address persistent water quality issues at Fort Steilacoom Park that negatively impact beneficial uses of the lake, while ensuring continued public access.
3. Target American Lake North Park and Harry Todd Park for limited habitat enhancements that are designed and sited to be compatible with the heavy active recreation use at these parks. Opportunities include planting of native vegetation where appropriate.
4. Target Springbrook Park and adjacent open spaces, and Chambers Creek Canyon Park for the use of environmentally friendly materials and design and vegetation enhancement (i.e., removal of invasive species and planting new native plants) during the future planned development of trails and recreational facilities.
5. Encourage restoration of aquatic and riparian habitat along Clover Creek through incentives for private property owners and continued stormwater management improvements and City capital improvement projects.
6. Collaborate with Pierce County, the City of University Place and community partners for restoration activities that would remove invasive plant species, improve habitat and other ecological functions within Chambers Creek Canyon Park.
7. Improve the ecological functions of lake shorelines by removing bulkheads and replacing these features to the extent feasible with erosion-resistant native trees and shrubs (e.g., Indian plum, red osier dogwood) to improve aquatic habitat conditions, while preserving property.

8. Improve the ecological functions of streams and related habitat with stream bank stabilization using native vegetation. Preserve and restore native vegetation along lake shorelines to the greatest extent feasible.
9. Improve habitat conditions by increasing large woody debris recruitment potential through plantings of trees along the lake shore, particularly conifers. Where a safety hazard will not be created, encourage the installation of large woody debris to meet short- term needs.
10. Target single family residential properties with incentives, outreach and information for homeowners who are willing to voluntarily remove bulkheads, plant native vegetation and encourage large woody debris recruitment.
11. Decrease the amount and impact of overwater and in-water structures within SMP lakes through minimization of structure size and use of more environmentally friendly materials, including grated decking.
12. Monitor and control aquatic invasive species in American Lake, Gravelly Lake, Lake Louise, and Waughop Lake, and continue to participate in lake-wide efforts at Lake Steilacoom to reduce populations of non-native aquatic vegetation.

4. LIST OF EXISTING AND ONGOING PROJECTS AND PROGRAMS

The following series of existing projects and programs are generally organized from the larger watershed scale to the City-scale, including City projects and programs with support of non-profit organizations that are active in the City of Lakewood area.

4.1 Chambers-Clover Creek Watershed Planning Participation and Ongoing Efforts

The Chambers-Clover Creek Watershed has been the focus of coordinated watershed planning efforts for roughly 20 years. The Chambers-Clover Creek Watershed Action Plan was completed in 1997 and it contained 56 actions. The Watershed Action Plan identified which jurisdictions, state agencies and other organizations would be responsible for implementation and the estimated costs of the proposed actions. Lakewood incorporated at the end of the planning process in 1996 and was not significantly involved in the creation of the Watershed Action Plan. The Watershed Action Plan was also the genesis of the CCWC. While the primary function of the group is to help facilitate the implementation of the watershed action plans, the members of the CCWC are also dedicated to improving fish habitat and fostering a sense of stewardship among watershed residents. CCWC members include representatives from local governments, tribes, businesses, elected officials, environmental agencies, non-profit groups, and private citizens.

The CCWC action plan is updated periodically and their website can be checked for the most recent version. Restoration of coho salmon stocks are a priority in WRIA 12 because the watershed was historically highly suited to coho salmon, along with chum, steelhead and cutthroat trout, and because Chinook do not presently use the freshwater habitat of WRIA 12. Coho are still present in the watershed, though at relatively low numbers. Recent analysis (Moberg 2001) indicates coho salmon would make an excellent indicator species for formulating priority actions to address salmonid conservation and recovery needs in WRIA 12.

Another key target for restoration is the late chum salmon run in Chambers Creek, with some use also being documented in smaller tributaries, such as Flett Creek. This chum run is unusual in the south Sound and represents an important pool of genes for the recovery of Puget Sound chum salmon.

The importance of the sequence of stream and pond habitat for coho salmon should not be underestimated. Productivity of this habitat can be inferred from observations elsewhere in Western Washington (Peterson 1982, Bustard and Narver 1975). In the context of Clover Creek-Steilacoom Lake, coho that spawn in Clover Creek can move down into the lake during late summer low water and may have better over-winter survival before smolting in the spring. Enhancement of habitat (e.g., LWD addition along the shoreline) in Steilacoom Lake, however, is the key issue that would need to be addressed.

The City of Lakewood is one of six cities and towns that are members of the CCWC. The lead agency is Pierce County's Public Works department that has responsibility for surface water planning in the Chambers-Clover Creek Watershed (WRIA 12). The CCWC provides local agencies and citizens with an opportunity to coordinate their planning efforts for the benefit of the watershed. In 2018, the CCWC published its *Watershed Action Agenda – 2018-2023* (<https://www.co.pierce.wa.us/DocumentCenter/View/76631/2018-23-Action-Agenda>). The Action Agenda establishes the following three strategies that are designed to meet the goals and objectives of the watershed council. Within each strategy are recent or ongoing actions in Lakewood that implement the strategies.

1. Enhance watershed-based communication, coordination and education.
2. Promote watershed stewardship
3. Support watershed protective policies and regulations that protect the aquifer and salmonids.

4.2 Watershed-Wide Action Items to Support Implementation of Chambers-Clover Creek Watershed Action Plan

1. The City of Lakewood evaluates effects on ground and surface water during compliance inspections. If businesses are found to be out of compliance with development regulations with regard to ground and surface water practices, City inspectors provide an explanation of why current practices need to be corrected.
2. The City has adopted a Stormwater Education and Outreach Plan per the conditions of its Phase II NPDES permit. The objective of the plan is to educate public employees, businesses, and the general public about illegal discharges and their potential negative effects on water quality. The plan establishes groups of target audiences and identifies the specific topics and distribution formats most applicable to each, as well as measurable goals to determine if outreach efforts are having a positive effect on reduction of illicit discharge. The plan also contains a timeline for outreach efforts to each of the audience groups.
3. The Tahoma Audubon Society initiated a project in 2018 which contacted about 500 landowners near Clover Creek. The landowners were provided information about best creek side management practices and invited them to attend a seminar on various topics. The project is scheduled to be conducted again in 2019.
4. Phase II NPDES Permit approved in 2012, See above, and Section 4.4 for additional details.

5. While most new developments are infiltrating their stormwater on site, there are numerous existing stormwater outfalls that discharge into Chambers Creek and Clover Creek, some of which are in the City. The City's Stormwater Management Plan includes a map showing all outfall areas. It is inferred from Pierce County water quality documents that Lake Louise likely has existing stormwater discharges directed into it although there are no natural surface drainages into the lake. American Lake has some existing direct discharges of stormwater into the south end of lake.
6. In addition, the City has taken the following actions to maintain and retrofit existing stormwater facilities:
 - Since incorporation, the City has retrofitted 13 outfalls that discharge to lakes and creeks within Lakewood;
 - The City has replaced approximately 500 obsolete stormwater dry wells with improved infiltration systems. The City plans to continue this effort until all remaining dry-wells have been replaced;
 - As part of the ongoing improvements to Pacific Highway, specifically the segment from Gravelly Lake Drive to Bridgeport Way, the City implemented various LID techniques to reduce the amount of runoff entering Clover Creek;
 - Nearly all of the City's planned public work capital projects include a stormwater management component. As roads are improved and public facilities are constructed, existing stormwater systems are upgraded, and new systems are designed to meet current standards.
7. Sanitary sewer serves the vast majority of the City. An area of approximately 40 acres located just north of Lake Louise and southwest of Lake Waughop, but outside the proposed SMA of either lake, contains 93 single-family residences that rely on on-site sewage disposal systems. Residences in the Tillicum and Woodbrook portions of the City, south of American Lake, also currently rely on on-site sewage disposal systems, but will soon have public sanitary sewer service provided by Pierce County. The City of Lakewood is working to transition properties that use on-site sewage disposal systems to sanitary sewer service, and all development within the City must connect to sanitary sewer if such is available. LMC 12A.15.040 requires existing development to connect to sanitary sewer within 90 days after the City has provided notice that service is available. New development shall connect to sanitary sewer in order to qualify for a certificate of occupancy (LMC 12A.15.060).
8. The City has ongoing public works improvement programs that offer potential benefits to lakes, including outfall retrofits, drywell retrofits, and sanitary sewer installation in Tillicum and American Lake Gardens.
9. In past years, the City has implemented several projects to remove barriers to fish passage on Clover Creek, Flett Creek, and Leach Creek, making additional upstream habitat available for fish and wildlife, including salmon. In addition, local stormwater management projects indirectly contribute to salmon recovery by reducing pollution in ground and surface water that may eventually flow to Puget Sound and increase habitat diversity.
10. A team comprised of Forterra, Pierce County, the Puyallup Tribe, and SPSSEG are currently working on a feasibility study to remove the Chambers Creek dam and other armoring to restore Chambers Bay.
11. The Puyallup Tribe is looking at options for habitat restoration along the lower 4 miles from Kobayashi Park to the Dam.

12. The Stewardship Committee worked with Lakewood's Parks department in 2018 (Parks Appreciation Day) on restoring 200 feet of creek bank along Clover Creek beside Springbrook Park. Volunteers removed blackberries, ivy and scotch broom. Surplus native plants were salvaged from a rain garden in Puyallup and re-planted on the creek side. The goal is to create a demonstration site showing various native trees, shrubs, and plants where people can visit to see which plants would be good for their yards.
13. Volunteers from the South Puget Sound Flyfishers kept three fish ladders free of debris in the fall of 2018 to allow Coho salmon to pass upstream. Other volunteers check on fish passages on McChord Field, Steilacoom Lake, and at the dam at Chambers Bay.
14. City of Lakewood adopted 2012 DOE Stormwater Manual, with 2014 amendments, and has also adopted the 2015 Pierce County Stormwater Management and Site Development Manual, which covers LID. City Public Works staff review development applications to ensure compliance with all adopted stormwater regulation. Specifically, the City requires TESC BMPs, and the municipal code requires developers to retain stormwater on-site to the maximum extent feasible (LMC 12A.11.044). Lakewood is fortunate to have soils suitable for infiltration throughout most of the city. Since the NPDES Permit was issued, all new developments are infiltrating their stormwater on site or in a few cases discharging to City infiltration systems. Also unique to Lakewood, much of the City's infrastructure infiltrates and does not discharge to surface waters. The City has not defined goals or metrics to identify, promote or measure LID use. The City has not determined schedules for requiring of implementing additional LID techniques on a broader scale.
15. The City employs one full-time stormwater compliance inspector whose duties include inspections of businesses and properties for compliance with Lakewood's stormwater management regulations. The inspector works closely with inspectors from other City departments (building, code enforcement, community service officers) on enforcement efforts that require multiple disciplines.
16. City staff also remains informed of changes in regulations at the state and federal level that may impact local regulatory requirements.
17. The City has participated in the Benthic Index of Biotic Integrity (BIBI) sampling program with Pierce County. The BIBI program consists of surveys of water bodies to evaluate water body health based on the prevalence of various indicator species.
18. The City also financially supports the Pierce Conservation District Stream Team in its efforts to sample and analyze water from several lakes in Lakewood. This is a long-term, ongoing project, and several more years of data will be necessary before it can be determined if there are any measurable trends in water quality.

In addition to the watershed action planning process, the Chambers-Clover Creek Watershed has also been the focus of a number of other major planning efforts. A Salmon Habitat Protection and Restoration Strategy for the watershed (WRIA 12) was completed in 2018, a requirement of the federal listing of Puget Sound Chinook as threatened under the Endangered Species Act. The Washington State Department of Ecology continues to develop water cleanup plans for impaired water bodies, as well as administer Clean Water Act implementation programs, such as NPDES permitting. Pierce County completed the Clover Creek Basin Plan in 2003, which focuses on water quality, flooding, and habitat issues in unincorporated areas. Additionally, a comprehensive watershed management plan for WRIA 12 was completed in 2004. However, this plan was not approved by all stakeholders.

4.3 Comprehensive Plan Policies

The City's comprehensive plan defines goals and policies addressing protection of the environment and shorelines in its Land Use Element. Topics addressed include environmentally critical areas, fish and wildlife habitat, water quality, air quality, wetland protection, and flood management. Many of the goals and policies applicable to the shoreline environment were used as the basis for the restoration objectives discussed in Section 3. Comprehensive Plan Policies are implemented through the City's Municipal Code, Capital Improvement Program and other mechanisms.

4.4 Environmentally Sensitive Areas Regulations

The City of Lakewood's critical areas and natural resource lands regulations are found in Lakewood Municipal Code Title 14 – Environmental Protection. The City completed its last critical areas regulations update in 2015, consistent with the requirements of the GMA. The regulations are based on "best available science," and they provide protection to critical areas in the City. The regulations categorize streams based on the Department of Natural Resources classification system and dictate buffers ranging from 35 feet to 150 feet. Wetland buffers range between 40 and 225 feet and are classified according to Lakewood Municipal Code 14.162.080. Management of the City's environmentally sensitive areas using these regulations should help insure that ecological functions and values are not degraded, and impacts to critical areas are mitigated. The City's critical areas regulations are adopted by reference into the Shoreline Master Program, with certain modifications and deletions based on the SMP Guidelines, to regulate critical areas found within the shoreline zone.

4.5 Stormwater Management and Planning

The Lakewood Department of Public Works Surface Water Management Division is responsible for maintaining the City's stormwater infrastructure. In 2012, Ecology approved the City's National Pollution Discharge Elimination System (NPDES) Phase II permit. The NPDES Phase II permit is required to cover the City's stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, and wastewater), management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations. The policies and regulations of the proposed SMP and this Restoration Plan are intended to support the City's ongoing NPDES Phase II Permit compliance efforts.

4.6 Public Education

The City of Lakewood's Comprehensive Plan identifies policy statements based on goals associated with the Land Use and Utilities elements (excerpted below). These items help guide City staff and local citizen groups in developing mechanisms to educate the public and broaden the interest in protecting and enhancing local environmental resources.

Policy LU-61.9: Work cooperatively with local water districts to maximize protection of wellheads and aquifers. Support ongoing efforts to:

- Educate citizens and employers about Lakewood's dependence on groundwater;
- Establish and maintain public awareness signs delineating the boundaries and key access points to the Lakewood Water District's wellhead protection areas;

- Maintain groundwater monitoring programs;
- Implement a well decommissioning program for all unused wells;
- Coordinate planning and review of drainage, detention, and treatment programs within wellhead protection areas.

Additionally, Strategy 1 in the *Watershed Action Agenda: Priorities for Focus within the Chambers-Clover Creek Watershed 2018-2023*, developed by the CCWC is “Enhance watershed-based communication, coordination, and education.” This agenda includes various goals and objectives related to this strategy.

- Develop and relay education and outreach messages that connect people to this watershed.
- Promote understanding of ground and surface waters as one integrated resource.
- Serve as a reliable source of current information about the watershed.
- Increase CCWC contact list to cover all the riparian owners along the regulated lakes and tributaries in the watershed.
- Establish and maintain current, comprehensive online access to information about the watershed through the CCWC website.
- Build relationships with existing outreach event partners, schools and watershed communication outlets and provide supplies and materials at five local events annually.

The City has been a member of the CCWC since its inception and actively implements all six of the public outreach components. Additional details about CCWC public education, outreach, and stewardship programs may be found at <https://www.co.pierce.wa.us/DocumentCenter/View/76631/2018-23-Action-Agenda>

Public education and involvement will be a priority in the City. Opportunities for restoration exist on public property in the City, but are limited along the majority of the City’s shorelines because it is under private ownership. Therefore, in order to achieve the goals and objectives set forth in this Restoration Plan, the City should focus on fostering restoration on private land.

Providing education opportunities and involving the public is important to success. This could possibly entail the development of a long-term Public Education and Outreach Plan to gain public support. Voluntary restoration efforts on private property would also benefit from public outreach and education. This could include local workshops and mailers to educate shoreline property owners and other shoreline users on maintaining healthy shoreline environments, promoting enhancement and restoration opportunities, and use of low impact development techniques.

4.7 Other Lakewood Programs and Projects

Illegal Discharge Detection and Elimination Program

The City’s Phase II NPDES Permit requires the implementation of an Illegal Discharge Detection and Elimination (IDDE) program to help meet the requirements of the Clean Water Act. The City’s latest IDDE plan, completed in July 2011, contains policies for finding and eliminating discharges of pollutants not allowed under the terms of the NPDES permit. The IDDE Plan contains an inventory of all known outfall locations and establishes a schedule for inspecting outfalls greater than 24 inches in diameter to

detect illicit discharges.

The IDDE Plan also contains protocols for spill prevention and response that are designed to ensure that spills of hazardous substances within the city are properly identified, reported, contained, and cleaned up.

Carwash Public Education

The City has established Best Management Practices (BMPs) for charity car washes, which can be a source of pollutants in the stormwater stream. The City requires that charity car washes obtain a free permit and that such car washes be located on a pervious surface (grass, gravel) or on an impervious surface that drains to a stormwater infiltration system, rather than the general stormwater network. Other guidelines and BMPs are published on fact sheets publicly available from the City.

Automotive Industry BMPs

In addition to public education for car washes, the City also publishes fact sheets containing good practices for auto-oriented businesses, such as car dealerships and automotive repair shops. Such practices include fixing oil leaks, preventing wash water from vehicles or car parts from entering the storm drain, proper disposal of hazardous waste, and covering outdoor storage areas to prevent potentially toxic runoff from flowing into the storm drain.

Safe Pet Waste Disposal BMPs

The City publishes fact sheets on pet waste disposal to educate the public on the importance of managing this contributor to poor water quality. The fact sheets explain that pet waste often contains pathogens that can cause disease in humans and other animals, and stormwater flows can transmit these pathogens to streams and lakes. Residents are encouraged to scoop up after their pets often and place the waste in the garbage. Placing pet waste in the municipal yard waste collection bins is highly discouraged because the pet waste then contaminates any compost that is made from the collected yard waste. Flushing pet waste down the toilet in areas using septic systems is also discouraged, as septic systems are often not designed to handle pet waste, which differs in composition from human waste, and septic systems may become overloaded and cause groundwater pollution.

5. LIST OF ADDITIONAL PROJECTS AND PROGRAMS TO ACHIEVE LOCAL RESTORATION GOALS

The following series of additional projects and programs are generally organized from the larger watershed scale to the City-scale, including City projects and programs and finally non-profit organizations that are active in the Lakewood area.

5.1 Recommended Projects

The following is partially developed from an initial list of opportunities identified within the *Shoreline Analysis Report*. The list of potential projects is intended to contribute to improvement of impaired functions.

General: Many shoreline properties have the potential for improvement of ecological functions through: 1) reduction or modification of shoreline armoring, 2) reduction of overwater cover and in-water structures (grated pier decking, pier size reduction, pile size and quantity reduction, moorage cover

removal), 3) reductions in upland impervious surface coverage, 4) improvements to vegetation within the shoreline setback or buffer, 5) improvement to existing flooding conditions, especially along Chambers Creek and Clover Creek, 6) improvements to habitat diversity, and/or 7) improvements to upland vegetation and soils to provide additional habitat and mitigate stormwater impacts. These opportunities generally apply to private residential properties, public parks, share recreational lots, private recreation uses, public street-ends, and utility corridors.

Segment 1: Chambers Creek

While a significant portion of the creek shoreline runs through properties containing private residences, Chambers Creek Park (i.e. Chambers Creek Properties owned and administered by Pierce County) occupies a large portion of the creek's northern reach, providing a direct opportunity to preserve and enhance the existing riparian zone on public lands. Enhancement of degraded areas could be achieved using the Washington Conservation Corps. In addition, along much of the southern reach, homes are located considerable distance from the creek, which is largely confined to a ravine. Forested and largely intact riparian areas provide valuable ecological functions as documented in the Shoreline Inventory and Analysis Report.

Protecting existing high quality habitat along Chambers Creek is the highest priority. Implementation and enforcement of critical area regulations and the City's NPDES stormwater program are cornerstones of the City's efforts to protect habitat along Chambers Creek and improve water quality. Interagency coordination with Pierce County and University Place, particularly for Chambers Creek Park, as well as WDFW (which has a fish hatchery and significant management role for fish in the basin) should be emphasized in refining the management strategy for the northern reach. Limited opportunities may also exist for property acquisition. Additional outreach to homeowners and habitat enhancement efforts in the park and on private properties with willing homeowners can help ensure that the highest quality fish and wildlife habitat in the City is protected and enhanced.

Segment 2: Clover Creek

Because the majority of Clover Creek shoreline is in private ownership, the primary opportunities for restoration and enhancement occur on private property. Enhancement of the area could be achieved by 1) educating private property owners on what an ecologically appropriate riparian zone should look like, 2) encouraging private property owners to remove existing bank modifications, such as rip-rap and concrete walls, replacing them with vegetation planting of native trees and shrubs. Homeowner education programs could also be established to discourage the use of chemicals on lawn areas and landscaping that may adversely affect water quality. As in the case of Chambers Creek, the City could use the Washington Conservation Corps to restore its own properties, such as planting native plants and removing invasive species in Springbrook Park. The City expects that implementation of the NPDES Phase II Stormwater Program and the incentive-based setback regulations included in the SMP, which encourages enhancement of the creek shoreline and vegetation, will help improve conditions along Clover Creek.

Two volunteers surveyed a section of Clover Creek between JBLM and I-5 in August 2017. A detailed report was prepared discussing the conditions of the stream and recommended restoration projects. The data was intended to be used to update Lakewood's Restoration Component of its Shoreline Master Program.

In addition, the City previously identified a fish blockage approximately 600 feet upstream of Lake Steilacoom. Removal of this blockage occurred in 2015.



Dense blackberry and ivy growth on City of Lakewood property near Springbrook Park (28 April 2018)

Segment 3: American Lake

As noted in the Chambers-Clover Creek Watershed Action Plan and other sources, phosphorus and other pollutants from improperly functioning on-site sewage systems (OSS) is a concern in the watershed overall as well as in the immediate vicinity of American Lake. The City should set a time frame for the required conversion of existing OSS in the Tillicum and American Lake Garden Tract neighborhoods to sanitary sewer and explore additional means to accomplish this goal. In the meantime, the City should work with the Tacoma-Pierce County Health Department (TPCHD) to identify problem OSS, work with property owners to educate them about the need to maintain their systems and support TPCHD to ensure the enforcement of existing regulations.

Most of the habitat enhancement potential for American Lake is concentrated on privately owned parcels because of the high degree of private ownership surrounding the lake. Restoration on private property could be achieved by encouraging private property owners to remove existing bank modifications and implement shoreline enhancement projects, such as native vegetation planting. The replacement of bulkheads and other forms of hard armoring with bioengineered solutions should be especially encouraged. Replacement of deteriorating piers should also be a high priority. Homeowner education programs could also be established to discourage the use of chemicals on lawn areas and landscaping that may adversely affect water quality.

Restoration activities could also occur at City parks, focusing on the removal of bulkheads and the reestablishment of native vegetation where feasible. New facilities constructed at City shoreline parks should employ LID practices and green building techniques. Areas where native vegetation cover is still extensive should be protected.

The City expects that implementation of the NPDES Phase II Stormwater Program and the incentive-based setback regulations included in the SMP, which encourages enhancement of the lake shoreline and vegetation, will help improve conditions along American Lake, as well as on other lakes in the City. A long-range goal for the City's Surface Water Management Division is the preparation of management

plans for the City's lakes, including American Lake. While American Lake currently has an aquatic vegetation management plan in place, the plan is narrowly focused. A new lake management plan would address a broad range of topics with bearing on the health of the lake, including water quality and upland vegetation enhancement.

Segment 4: Lake Steilacoom

Most of the restoration potential for Lake Steilacoom is concentrated on privately owned parcels because of the high degree of private ownership surrounding the lake. Restoration on private property could be achieved by encouraging private property owners to remove existing bank modifications and implement shoreline enhancement projects, such as native vegetation planting or installing engineered LWD. The replacement of bulkheads and other forms of hard armoring with bioengineered solutions should be especially encouraged. Replacement of deteriorating piers should also be a high priority. Because steelhead, an ESA listed fish species, are known to occur in Lake Steilacoom, dock and pier standards require light transmission through deck materials to limit impacts on salmonids. Homeowner education programs could also be established to discourage the use of chemicals on lawn areas and landscaping that may adversely affect water quality.

Restoration activities could also occur at Edgewater Park, and the city should consider acquiring additional property on Lake Steilacoom for public access (i.e., parking). The City can use these projects as an example to private landowners in how to setback and restore shoreline areas. New facilities constructed at City shoreline parks should employ LID practices and green building techniques. Areas where native vegetation cover is still extensive should be protected.

A long-range goal for the City's Surface Water Management Division is the preparation of management plans for the City's lakes, including Lake Steilacoom. The lake management plan would address a broad range of topics with bearing on the health of the lake, including water quality, aquatic vegetation management, and upland vegetation enhancement.

Segment 5: Gravelly Lake

Gravelly Lake is surrounded by private parcels, and restoration opportunities are therefore restricted to private property. Restoration on private property could be achieved by encouraging private property owners to remove existing bank modifications and implement shoreline enhancement projects, such as native vegetation planting. The replacement of bulkheads and other forms of hard armoring with bioengineered solutions should be especially encouraged.

Replacement of deteriorating piers should also be a high priority. Homeowner education programs could also be established to discourage the use of chemicals on lawn areas and landscaping that may adversely affect water quality.

While privately owned, Lakewold Gardens is open to the public and provides an opportunity for further shoreline restoration. The City should work with Lakewold Gardens to explore possibilities for expanded public access at this location, as well as implementation of restoration measures, such as bulkhead removal and reduce use of chemicals and fertilizers that may adversely affect water quality in Gravelly Lake.

Segment 6: Lake Louise

Lake Louise is surrounded by private parcels, and with the exception of the public boat launch at the restoration opportunities are therefore restricted to private property. Restoration on private property

could be achieved by encouraging private property owners to remove existing bank modifications and implement shoreline enhancement projects, such as native vegetation planting. The replacement of bulkheads and other forms of hard armoring with bioengineered solutions should be especially encouraged. Replacement of deteriorating piers should also be a high priority. Homeowner education programs could also be established to discourage the use of chemicals on lawn areas and landscaping that may adversely affect water quality.



Invasive Himalayan blackberry and ivy at Edgewater Park

Segment 7: Waughop Lake

Waughop Lake is located entirely within Fort Steilacoom Park, so restoration efforts could be undertaken by the City of Lakewood. Due to poor water quality and potential risks to human health, water quality improvement should be the highest priority for restoration projects at Waughop Lake. The practice of stocking the lake with game fish has been discontinued., Taking steps to reduce the amount of pet waste that washes into the lake, such as increased provision of waste bags and trash containers along the park trails, is recommended.

As noted in the Chambers-Clover Creek Watershed Action Plan and other sources, phosphorus and other pollutants from improperly functioning on-site sewage systems (OSS) is a concern in the watershed overall as well as in the vicinity of Waughop Lake. In 2019, the City is continuing the conversion of existing OSS in the area to sanitary sewer. In the meantime, the City should work with the Tacoma-Pierce County Health Department to identify problem OSS, work with property owners to educate them about the need to maintain their systems and support TPCHD to ensure the enforcement of existing regulations.

A long-range goal for the City's Surface Water Management Division is the preparation of management plans for the City's lakes, including Waughop Lake. The lake management plan would address a broad range of topics with bearing on the health of the lake, including water quality, aquatic vegetation management, and upland vegetation enhancement. Improving water quality would be a primary focus for Waughop Lake.

Educational signage regarding the lake and surrounding wetlands would help fulfill the public outreach and education goals of this restoration plan, and enhancements to the wetlands and associated buffers would provide improvements to water quality and fish and wildlife habitat.

6. PROPOSED IMPLEMENTATION TARGETS AND MONITORING METHODS

As previously noted, the vast majority of the City’s shoreline zone is occupied by single-family residences, with small areas of vacant property and two parks. Therefore, other than watershed level programs, such as NPDES Phase II Stormwater Permit compliance, the largest potential for directly improving shoreline ecological function generally lies in promoting restoration and healthy practices on private property and the lot scale. The City of Lakewood can continue improvement of shoreline ecological functions along the shoreline through a more comprehensive watershed approach, which combines the both public education programs and lakefront and streamside improvements.

The following table (Table 1) outlines a possible schedule and funding sources for implementation of a variety of efforts that could improve shoreline ecological function, and are described in previous sections of this report.

Table 1. Implementation Schedule and Funding for Restoration Projects, Programs, and Plans.

Restoration Project/Program	Schedule	Funding Source or Commitment
4.1 Chambers-Clover Watershed Council Participation	Ongoing	The City plays an active role on the Chambers-Clover Watershed Council. The City sends a staff representative to a monthly CCWC meeting, and the City’s Surface Water Division Manager serves as the CCWC chair. City of Lakewood staff commit approximately 4-5 hours per month to CCWC activities.
4.2 Comprehensive Plan Policies	Last updated 2014	The City commits substantial staff time to the review of projects and programs to ensure consistency and compliances with the goals and policies of the Comprehensive Plan. The City last updated its Comprehensive Plan in 2014, and the next update is mandated by the Growth Management Act to occur before the end of 2023.
4.3 Critical Areas Regulations	Updated 2009	The City commits substantial staff time to the review of projects and programs to ensure consistency and compliances with the goals and policies of the Critical Areas Regulations.

Restoration Project/Program	Schedule	Funding Source or Commitment
4.4 Stormwater Management and Planning	Ongoing	The City adopted a Stormwater Management Program in 2018. The City prepares annual updates to its Stormwater Management Program, pursuant to the conditions of its NPDES permit. The Stormwater Management Program is funded by a stormwater utility fee paid for by Lakewood property owners.
4.5 Public Education/Outreach	Ongoing	<p>The City has an active Stormwater Public Education and Outreach Plan. The plan is updated annually in accordance with NPDES permit requirements.</p> <p>As part of this effort, the City could develop a long- term Public Education and Outreach Plan to gain public support for voluntary restoration efforts on private property.</p>
5.1 Recommended Improvements	As funds and opportunity allow	Projects identified in this section will be implemented when funding is obtained, either through grants or through partnerships with other agencies or non-profit groups, or as required by critical areas regulations or the Shoreline Master Program during project-level review by the City. Projects that directly benefit salmon habitat may be eligible to receive funding from the Washington State Salmon Recovery Funding Board. \$28 million dollars of project funding was announced by the SRFB for Fiscal Year 2011.

The City is required to monitor development under the Shoreline Master Program to ensure no net loss. We recommend that City planning staff track all land use and development activity, including exemptions, within shoreline jurisdiction, and incorporate actions and programs of the Parks and Recreation and Public Works departments as well. We recommend that a report be assembled that provides basic project information, including location, permit type issued, project description, impacts, mitigation (if any), and monitoring outcomes as appropriate. Examples of data categories might include square feet of non-native vegetation removed, square feet of native vegetation planted or maintained, reductions in chemical usage to maintain turf, linear feet of eroding shoreline stabilized through plantings, linear feet of shoreline armoring removed, number of fish passage barriers eliminated or stream miles opened to anadromous fish. The report could also update Tables 1 and 2 above, and outline implementation of various programs and restoration actions (by the City or other groups) that relate to watershed health.

The staff report could be assembled to coincide with Comprehensive Plan updates and could be used, in light of the goals and objectives of the Shoreline Master Program, to determine whether implementation of the Shoreline Master Program is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the Shoreline Analysis Report (Otak/AHBL 2010). In the long term, the City should be able to demonstrate a net improvement in the City of

Lakewood's shoreline environment.

Based on the results of this future assessment program, the City may make recommendations for future changes to the Shoreline Master Program.

7. RESTORATION CONSTRAINTS AND PRIORITIES

The process of prioritizing actions that are geared toward restoration of Lakewood's shoreline area involves balancing ecological goals with a variety of constraints. General constraints related to potential restoration of shoreline functions include:

1. Persistent water quality problems that are a result of nonpoint pollution within the entire watershed, including areas outside of the City of Lakewood.
2. Persistent problems with base flows in Clover Creek.
3. An extensively developed shoreline area throughout the SMA with predominantly private land ownership (a portion of Chambers Creek being the exception).
4. Heavy use of public parks and demand for parking, public access, active recreation and water dependent facilities that have the potential to conflict with shoreline habitat restoration.

The goals in Section 3 and constraints were used to develop a hierarchy of restoration actions to rank different types of projects or programs associated with shoreline restoration. Programmatic actions, like providing public education and outreach programs to local residents, tend to receive relatively high priority opposed to restoration actions involving private landowners. Other factors that influenced the hierarchy are based on scientific recommendations specific to WRIA 12, potential funding sources, and the projected level of public benefit.

Although restoration project/program scheduling is summarized in the previous section (Table 2), the actual order of implementation may not always correspond with the priority level assigned to that project/program. This discrepancy is caused by a variety of obstacles that interfere with efforts to implement projects in the exact order of their perceived priority. Some projects, such as those associated with riparian planting, are relatively inexpensive and easy to permit, and should be implemented over the short and intermediate term despite the perception of lower priority than projects involving extensive shoreline restoration or large-scale capital improvement projects. Straightforward projects with available funding should be initiated immediately for the worthwhile benefits they provide and to preserve a sense of momentum while permitting, design, site access authorization, and funding for the larger, more complicated, and projects that are more expensive are under way.

7.1 Priority 1 – Continue Water Resource Inventory Area (WRIA) 12 Participation

Of basic importance is the continuation of ongoing, programmatic, basin-wide programs and initiatives such as Watershed Action Agenda and the WRIA 12 watershed restoration efforts. The City should continue to work collaboratively with other jurisdictions and stakeholders in WRIA 12 through the CCWC to implement the actions called for in the related plan. This process provides an opportunity for the City to keep in touch with its role on a basin-wide scale and to influence habitat conditions beyond its borders, which in turn come back to influence water quality and quantity and habitat issues within the City.

7.2 Priority 2 – Improve Water Quality and Reduce Sediment and Pollutant Delivery

Maintaining and improving water quality throughout the Chambers-Clover Creek Watershed is considered a high priority for the City of Lakewood. The water quality in the City's streams and lakes directly influences recreational uses such as swimming and boating, as well as fish and wildlife habitat. Water from the surrounding basin flows into Clover Creek, flows into Lake Steilacoom and then flows north through Chambers Creek to the Puget Sound. The remaining lakes in the City are isolated from these surface flows, but receive stormwater inputs and are connected via groundwater.

The City received its final National Pollutant Discharge Elimination System (NPDES) Phase II permit in January 2012 from Ecology. The NPDES Phase II permit is required to cover the City's stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, and wastewater), management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations.

The City has adopted Ecology's 2012 Stormwater Manual for Western Washington, and the city existing standards as well as the proposed standards in the SMP require the use of LID techniques to the maximum extent feasible.

Development activities within the watershed have led to higher peak flows, excessive sediment loading, and gravel scouring. Implementation of the City's stormwater program is expected to help address these issues to some extent, but again, these impacts occur as a result of development within the entire basin. Loss of flow in the central section of the mainstem Clover Creek within the City creates a passage barrier as well as loss of habitat area. Poor water quality has led to fish kills in the past, which are typically the result of "first flush" events on holding coho. Chambers Creek, Lake Steilacoom, and Clover creek are the highest priority SMA fish habitat areas in the City. Although they are not SMA waters, Ponce de Leon, Flett, and Leach Creeks are critical steelhead habitat and are a priority as well, now that critical steelhead has been established.

As noted in the Chambers-Clover Creek Watershed Action Plan and other sources, phosphorus and other pollutants from improperly functioning on-site sewage systems (OSS) is a concern in the watershed overall as well as in the immediate vicinity of American Lake and Waughop Lake. [Current study rejects previous sentence.] The City should set a time frame for the required conversion of remaining neighborhoods to sanitary sewer and explore additional means to accomplish this goal. In the mean time, the City should work with the TPCHD to identify problem OSS, work with property owners to educate them about the need to maintain their systems and support TPCHD to ensure the enforcement of existing regulations.

7.3 Priority 3 – Develop, Expand and Implement Public Education and Involvement Programs

Public education and involvement should be a high priority in the City of Lakewood due to the extent of residential development in the shoreline jurisdiction. Opportunities for restoration outside of residential property are limited to City parks and right-of-way. Therefore, in order to achieve the goals and objectives set forth in this Restoration Plan, most of the restoration projects would need to occur on private property. Thus, providing education opportunities and involving the public are keys to success.

These could entail coordinating the development of a long-term Public Education and Outreach Plan to gain public support. This could include local workshops to educate shoreline property owners and other shoreline users on maintaining healthy shoreline environments. A more direct and practical way, however, of promoting enhancement and restoration opportunities is to prepare materials specifically targeted to landowners explaining how best to manage their shoreline properties.

7.4 Priority 4 –Create or Enhance Natural Shoreline Conditions along Clover Creek

As noted in the Chambers-Clover Watershed Action Plan, the Watershed Action Agenda and the WRIA 12 Plan, the principal impacts to habitat along Clover Creek have been caused by dredging and rerouting of stream channels, ditching or burying the stream, elimination of wetlands and estuarine habitat, riparian forest removal, as well as non-point water quality pollution, industrial discharges, fish passage barriers and removal of large wood from channels. Recommended projects are listed in Section 5.1. Master restoration plans should be developed to reduce negative impacts and unintended consequences.

Areas of WRIA 12 that would provide the benefit to coho salmon are located upstream of Steilacoom Lake and include Clover Creek in the City up to Spanaway Creek, the upper reaches of the Clover main stem, any perennial reaches of North Fork Clover Creek and Spanaway and Morey creeks. Some of these areas are located outside of the City. The principal factors that provide the greatest benefit to coho salmon are generally sediment load, substrate quality, perennial flow, habitat types (e.g. pool frequency and backwater pools), water quality, and removal of fish passage obstructions. Restoration of flow to the lower sections of Clover Creek, from Lake Steilacoom upstream to above the north fork confluence is necessary to achieve the benefits of habitat restoration.

7.5 Priority 5 – Implement Soft Shoreline Stabilization and Reduce In-water and Over-water Structures

The majority of lake shoreline is armored at or below the ordinary high water mark. (Otak/AHBL 2010) Therefore restoration opportunities are limited. However, the City does have an opportunity to enhance the Edgewater Park shoreline on Steilacoom Lake through the use of native vegetation and LWD. Emphasis should also be given to future project proposals that involve or have the potential to restore shoreline areas to more natural conditions, and the City should continue to develop incentives for property owners to remove existing armoring or replace with softer stabilization systems.

Reduction of in- and over-water cover by piers, docks, and other boat-related structures is one mechanism to improve shoreline ecological functions. Pier and docks are extensive along lakes in the City, with approximately 80 percent of all residential parcels having a pier or dock. The WDFW already regulates the size and materials for in- and over-water structures throughout the State and generally recommends finding ways to reduce both the size and density of these structures. Although no specific private project sites to reduce in-water and over-water structures within residential areas are identified here, future project proposals involving reductions in the size and/or quantity of such structures should be emphasized. Such future private projects may involve joint-use pier proposals or pier reconstruction and may be allowed an expedited permit process or promoted through project incentives.

7.6 Priority 6 – Improve Riparian Vegetation, Reduce Impervious Coverage

Similar to the priority listed above to improve water quality and reduce sediment and pollutant delivery, improved riparian vegetation and reduction in impervious surfaces are emphasized

throughout the WRIA 12 Salmon Habitat Plan. Watershed-wide programmatic actions described in the Salmon Habitat Plan include many references to improving vegetative conditions and reducing impervious surface coverage. The use of LID will support the City's restoration efforts by supporting the retention and planting of native vegetation, reducing impervious surfaces, and localizing stormwater management. The SMP's policies regarding Vegetation Conservation provide greater protection to mature trees and native vegetation than the current Tree Preservation regulations.

7.7 Priority 7 – Enhance Habitat as Part of Future Street End Park Improvements

The street end parks provide opportunities for habitat restoration and public education, particularly at Westlake Avenue, Edgewater Park, Lake City Boulevard, Wadsworth Street, and Melody Lane. Development and restoration of these areas, including enhancement of native riparian vegetation could provide recreational space and give park visitors the opportunity to see habitat restoration in progress.

7.8 Priority 8 – City Zoning, Regulatory, and Planning Policies

City Zoning, Regulatory, and Planning Policies are listed as being of lower priority in this case simply because they were recently reviewed and updated in 2009. The City's Critical Areas regulations were also reviewed at this time and updated to be consistent with the Best Available Science for critical areas, including those within the shoreline zone. The City will update the Comprehensive Plan to include the revised policy direction in the updated SMP and should consider additional efforts to forward restoration priorities as part of future major Comprehensive Plan updates.

8. DEFINITIONS, ABBREVIATIONS, AND GLOSSARY OF TERMS

THE FOLLOWING WORDS AND PHRASES ARE INCLUDED WITHIN THE LAKEWOOD SMP AND ARE PROVIDED FOR PURPOSES OF INTERPRETING THIS RESTORATION PLAN.

Accessory use or accessory structure - Any subordinate use, structure, or building or portion of a building located on the same lot as the main use or building to which it is subordinate.

Accretion - The growth of a beach by the addition of material transported by wind and/or water, including, but not limited to, shore forms such as barrier beaches, points, spits, and hooks.

Act - The Shoreline Management Act (See Chapter 90.58 RCW).

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

Agriculture - Agricultural uses, practices and activities. In all cases, the use of agriculture related terms shall be consistent with the specific meanings provided in WAC 173-26-020. Accessory agricultural uses may consist of garden plots, livestock pens, barns, or other structures supporting incidental agriculture on the property.

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

Appurtenance - A structure or development which is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the OHWM and also of the perimeter of any wetland. Typically includes a garage, deck, driveway, utilities, fences, installation of a septic tank, and drainfield and grading which does not exceed two hundred fifty cubic yards (250) (except to construct a conventional drainfield) and which does not involve placement of fill in any wetland or waterward of the OHWM (see WAC 173-27-040(2)(g)).

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

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

Associated wetlands - Those wetlands that are in proximity to and either influence, or are influenced by tidal waters or a lake or stream subject to the SMA. (See WAC 173-27-030(1)).

Average grade level - The average of the natural or existing topography of the portion of the lot, parcel, or tract of real property which will be directly under the proposed building or structure; provided that in case of structures to be built over water, average grade level shall be the elevation of OHWM. Calculation of the average grade level shall be made by averaging the elevations at the center of all exterior walls of the proposed building or structure (See WAC 173-27-030(3)).

Baseline - The existing shoreline condition, in terms of both ecological function and shoreline use, established at the time this SMP is approved.

Beach - The zone of unconsolidated material that is moved by waves, wind and tidal currents, extending landward to the coastline.

Beach enhancement/restoration - Process of restoring a beach to a state that more closely resembles a natural beach, using beach feeding, vegetation, drift sills and other nonintrusive means as applicable.

Beach feeding - Landfill deposited on land or in the water to be distributed by natural water processes for the purpose of supplementing beach material.

Benthic organism or Benthos - Living organisms that live in or on the bottom layer of aquatic systems, at the interface of the sediment (or substrate) and overlying water column. Benthos commonly refers to an assemblage of insects, worms, algae, plants and bacteria.

Berm - A linear mound or series of mounds of sand and/or gravel generally paralleling the water at or landward of the OHWM. A linear mound may be used to screen an adjacent activity, such as a parking lot, from transmitting excess noise and glare.

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

Bioengineering - see Soil bioengineering.

Biofiltration system - A stormwater or other drainage treatment system that utilizes the ability of plant life to screen out and metabolize sediment and pollutants. Typically, biofiltration systems are designed to include grassy swales, retention ponds and other vegetative features.

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

BMPs - see Best Management Practices.

Boat launch or ramp - Graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.

Boat lift - A mechanical device that can hoist vessels out of the water for storage, usually located along a pier.

Boat lift canopy - A translucent canopy or awning that is attached to the boat lift to shield the boat from sun and precipitation.

Boathouse - A structure designed for storage of vessels located over water or on shorelands. Boathouses do not include "houseboats" or "floating homes."

Boating facility - A public or private moorage structure serving more than four (4) residences.

Breakwater - An offshore structure generally built parallel to the shore that may or may not be connected to land, built to protect a harbor, moorage, or navigational activity from wave and wind action by creating a still-water area along the shore and to protect the shoreline from wave-caused erosion.

Bulkhead - A vertical or nearly vertical erosion protection structure placed parallel to the shoreline at or near the OHWM, consisting of concrete, timber, steel, rock, or other permanent material not readily subject to erosion.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act ("Superfund"); 1986 amendments are known as Superfund Amendments and Reauthorization Act or "SARA."

Channel Migration Zone (CMZ) - The area within which a river channel is likely to move over a period of time, also referred to as the meander belt. Unless otherwise demonstrated through scientific and technical information, areas separated from the active river channel by legally existing artificial channel constraints that limit channel movement within incorporated municipalities and urban growth areas and all areas separated from the active channel by a legally existing artificial structure(s) that is likely to restrain channel migration, including transportation facilities, built above or constructed to remain intact through the one hundred-year flood should not be considered within the CMZ.

Chapter 90.58 RCW - The Shoreline Management Act of 1971.

City - The City of Lakewood.

Clearing - The destruction or removal of vegetation ground cover, shrubs and trees including, but not limited to, root material removal and/or topsoil removal.

CMZ - see Channel Migration Zone.

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

Community Pier / Dock - Joint use moorage serving more than four (4) residences that is tied to specific parcels by covenant or deed. Community piers are distinguished from marinas in that they do not offer moorage space for lease or sale.

Comprehensive Plan - Comprehensive plan means the document adopted by the city council, including all attachments, that outlines the City's goals and policies relating to growth management, and prepared in accordance with Chapter 36.70A RCW.

Conditional Use - A use, development, or substantial development that is classified as a conditional use or is not classified within the SMP. (See WAC 173-27-030(4)).

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.

Covered moorage - Boat moorage, without solid walls, that has a solid roof to protect the vessel and is attached to the dock itself or the substrate of the lake. See moorage cover.

Cumulative impact - The impact on the environment resulting from the incremental impact of past, present, and reasonably foreseeable future actions taken together regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

CUP - see Conditional Use Permit.

Degrade - To scale down in desirability or salability, to impair in respect to some physical property or to reduce in structure or function.

Development - 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 permanent or temporary project which interferes with the normal public use of the waters overlying lands subject to the SMA at any state of water level (See RCW 90.58.030(3a)).

DFW - the Washington State Department of Fish and Wildlife.

DNR - the Washington State Department of Natural Resources.

Dock - A floating moorage structure.

Dredge spoil or Dredge material - The material removed by dredging.

Dredging - Excavation or displacement of the bottom or shoreline of a water body by mechanical or hydraulic machines to maintain channel depths or berths for navigational purposes or to cleanup polluted sediments.

Dwelling unit - A single unit providing complete, independent living facilities for one or more persons, not to exceed one family, and includes permanent provisions for living, sleeping, eating, cooking and sanitation.

EIS - Environmental Impact Statement.

Ecological functions - The work performed or the 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.

Ecology - The Washington State Department of Ecology.

Ecosystem-wide processes - The suite of naturally occurring physical and geologic processes of erosion, transport, and deposition; and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat and the associated ecological functions.

EII - Terminal section of a pier which typically extends perpendicular to the pier walkway. These sections can be either on fixed-piles or floating docks and are typically wider than the pier walkway.

Emergency - An unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with the SMP. Emergency construction is construed narrowly as that which is necessary to protect property from the elements (See RCW 90.58.030(3eiii) and WAC 173-27-040(2d)).

Endangered Species Act (ESA) - A federal law intended to protect any fish or wildlife species that are threatened with extinction throughout all or a significant portion of its range. (See 16 U.S.C. § 1531 et seq.).

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

Environmental impacts - The effects or consequences of actions on the natural and built environments, including effects upon the elements of the environment listed in the State Environmental Policy Act. (See WAC 197-11-600 and WAC 197-11-444).

Environmentally Sensitive Areas Ordinance 03-1037, City of Lakewood - This ordinance provides the goals, policies, and implementing regulations for protecting the designated critical areas of the City. The ordinance addresses environmentally sensitive area development controls; measures important for protecting and preserving these resources; preventing or mitigating cumulative adverse environmental impacts to critical areas; and serves to alert the public to the development limitations of critical areas.

Environments or Shoreline Environment - Designations given to specific shoreline areas based on the existing development pattern, the biophysical capabilities and limitations, and the goals and aspirations of local citizenry, as part of an SMP.

Erosion - The wearing away of land by of natural forces.

Excavated moorage slip - A boat mooring location that is man-made in that it requires dredging or excavation of excess sediment to afford access. Such slips may often involve dredging of the lake bottom waterward of the OHWM, or may include excavating a segment of the existing shoreline to enable moorage of a boat.

Excavation - The artificial movement of earth materials.

Exemption - Specific developments exempt from the definition of substantial developments and the Substantial Development Permit process of the SMA. An activity that is exempt from the substantial development provisions of the SMA must still be carried out in compliance with policies and standards of the Act and the local SMP. CUPs and/or Variances may also still be required even though the activity does not need a Substantial Development Permit (See WAC 172-27-040). For a complete list of exemptions, see Chapter 7.

Fair market value - The open market bid price for conducting the work, using the equipment and facilities, and purchasing the goods, services and materials necessary to accomplish a development, normally the cost of hiring a contractor to undertake the development from start to finish, including the cost of labor, materials, equipment and facility usage, transportation and contractor overhead and profit. The fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials (See WAC 173-27-030(8)).

Feasible - An action, such as a development project, mitigation, or preservation requirement, that meets 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;
- (b) The action provides a reasonable likelihood of achieving its intended purpose; and
- (c) The action does not physically preclude achieving the project's primary intended legal use.

In cases where certain actions are required 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 time frames.

Fill - The addition of soil, sand, rock, gravel, sediment, earth retaining structure, or other material to an area waterward of the OHWM, in wetland, or on shorelands in a manner that raises the elevation or creates dry land.

Finger pier or fingers - A narrow extension to a fixed-pile pier, usually extending perpendicular to the pier walkway along with an ell to form an enclosed area for boat moorage.

Float - A floating structure that is moored, anchored, or otherwise secured in the water offshore and that may be associated with a fixed-pile pier, or may be a standalone structure, such as platforms used for swimming and diving.

Floating dock - A fixed structure floating upon a water body for the majority of its length and connected to shore.

Floating home - A structure designed and operated substantially as a permanently based over water residence, typically served by permanent utilities and semi-permanent anchorage/moorage facilities. Floating homes are not vessels and lack adequate self-propulsion and steering equipment to operate as a vessel.

Floodplain - The land area susceptible to inundation with a one percent (1%) chance of being equaled or exceeded in any given year (synonymous with 100-year floodplain). The limits of this area are based on flood regulation ordinance maps or a reasonable method that meets the objectives of the SMA (See WAC 173-22-030(2)).

Floodway - The area, as identified in an SMP, that either: (i) has been established in Federal Emergency Management Agency flood insurance rate maps or floodway maps; or (ii) consists of those river valley areas lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, identified, under normal conditions, by changes in surface soil conditions or in types or quality of vegetative ground cover condition, topography, or other flooding indicators occurring with reasonable regularity. The floodway shall not include those lands that are reasonably expected to be protected by flood control devices maintained by or under a license from the federal government, the state, or a political subdivision of the state.

Geotechnical report or Geotechnical analysis - A scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology; the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes; conclusions and recommendations regarding the effect of the proposed development on geologic conditions; the adequacy of the site to be developed; the impacts of the proposed development; alternative approaches to the proposed development; and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers or geologists who have professional expertise about the regional and local shoreline geology and processes.

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

Grassy swale - A vegetated drainage channel that is designed to remove various pollutants from storm water runoff through biofiltration.

Groin - A barrier-type structure extending from, and usually perpendicular to, the backshore into a water body, to protect a shoreline and adjacent upland by influencing water movement and/or material deposits. This is accomplished by building or preserving an accretion beach on its up drift side by trapping littoral drift. A groin is relatively narrow in width but varies greatly in length. A groin is sometimes built in a series as a system and may be permeable or impermeable, high or low, and fixed or adjustable.

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

Hearing Examiner - The Hearing Examiner of the City of Lakewood.

Height - The distance measured from the average grade level to the highest point of a structure; provided, that television antennas, chimneys and similar appurtenances shall not be used in calculating height, except where it obstructs the view of a substantial number of residences on areas adjoining such shorelines. Temporary construction equipment is excluded in this calculation (See WAC 173-27-030(9)).

Heliport - Any landing area or other facility used or intended to be used by private aircraft for landing or taking off of aircraft, including all associated or necessary buildings and open spaces.

Hoist - A device used for lifting or lowering a load by means of a drum or lift-wheel around which rope, fiber or chain wraps. It may be manually operated, electrically or pneumatically driven.

Houseboat - A vessel, principally used as an over water residence, licensed and designed for use as a mobile structure with detachable utilities or facilities, anchoring, and the adequate self-propulsion and steering equipment to operate as a vessel. Principal use as an overwater residence means occupancy in a single location, for a period exceeding two (2) months in any one calendar year. This definition includes live aboard vessels.

Impervious surface - Any horizontal surface artificially covered or hardened so as to prevent or impede the water percolation into the soil mantle including, but not limited to, roof tops, swimming pools, or paved or graveled roads, walkways or parking areas, but excluding landscaping and surface water retention/detention facilities.

In-stream structure - A structure placed by humans within a stream or river waterward of the OHWM that either causes or has the potential to cause water impoundment or water flow diversion, obstruction, or modification. In-stream structures may include structures used for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service, fish habitat enhancement, or other purpose.

Joint Use Community Pier or Dock - A pier, dock, or secured float or floats for vessel moorage, fishing, or other water use that is shared by two (2) or more users.

Lake - A body of standing water in a depression of land or expanded part of a river, including, but not limited to, reservoirs of twenty (20) acres or greater in total area. A lake is bounded by the OHWM or, where a stream enters a lake, the extension of the elevation of the lake's OHWM within the stream (See RCW 90.58.030(1d); WAC 173-20-030; WAC 173-22-030(4)).

Landfill - The creation of, or addition to, a dry upland area (landward of the OHWM) by the addition of rock, soil, gravels and earth or other material, but not solid or hazardous waste.

Landscaping - Vegetation ground cover including shrubs, trees, flower beds, grass, ivy and other similar plants and including tree bark and other materials which aid vegetative growth and maintenance.

Launching rail - See Boat launch or ramp.

Launching ramp - See Boat launch or ramp.

LID - Low Impact Development.

Littoral - Living or occurring on the shore.

Littoral drift - The mud, sand, or gravel material moved parallel to the shoreline in the nearshore zone by waves and currents. **Marina** - A private or public facility providing the purchase or lease of a slip for storing, berthing and securing boats or watercraft, including both long-term and transient moorage, including, but not limited to, accessory facilities that provide incidental services to marina users, such as waste collection, boat sales or rental activities, and retail establishments providing fuel service, repair or service of boat. **Community docks and piers**, which serve specific upland parcels and which do not offer moorage for purchase by the general public, shall not be considered to be marinas.

Low Impact Development (LID) - A stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

May - Signifies an action is permitted but not required, provided it conforms to the provisions of this SMP.

Mitigation or Mitigation sequencing - The process of avoiding, reducing, or compensating for the environmental impact(s) of a proposal through the following sequence of steps, listed in order of priority: (See WAC 197-11-768 and WAC 173-26-020(30))

- (a) Avoiding the impact all together by not taking a certain action or parts of an action;
- (b) Minimizing impacts by limiting the degree or magnitude of the action by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations;
- (e) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
- (f) Monitoring the impact and the compensation projects and taking appropriate corrective measures.

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

Moorage Piles - Structural members driven into the lake bed to serve as a stationary moorage point. They are typically used for moorage of small boats in the absence of, or instead of, a dock or pier. In some cases, moorage piles may be associated with a dock or pier.

Multi-family dwelling or Multi-family residence - A building containing two (2) or more dwelling units, including, but not limited to, duplexes, triplexes, four-plexes, apartment buildings and condominium buildings.

Must - Signifies an action is required.

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

Nonconforming use or development - A shoreline use or structure which was lawfully constructed or established prior to the effective date of the SMA or the SMP or amendments thereto, but which no longer conforms to present regulations or standards of the program (See WAC 173-27-080).

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

Overwater structure - Any device or structure projecting over the OHWM, including, but not limited to, piers, docks, floats, and moorage.

Permit or Shoreline Permit - Any substantial development permit, CUPs or variance, or revision, or any combination thereof, authorized by the Act (See WAC 173-27-030(13)).

Pier - A fixed, pile-supported moorage structure.

Priority habitat - A habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes:

- (a) Comparatively high fish or wildlife density;
- (b) Comparatively high fish or wildlife species diversity;
- (c) Fish spawning habitat;
- (d) Important wildlife habitat;
- (e) Important fish or wildlife seasonal range;
- (f) Important fish or wildlife movement corridor;
- (g) Rearing and foraging habitat;
- (h) Important marine mammal haul-out;
- (i) Refuge habitat;
- (j) Limited availability;
- (k) High vulnerability to habitat alteration;
- (l) Unique or dependent species; or
- (m) Shellfish bed.

A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (such as oak woodlands or eelgrass meadows); by a successional stage (such as, old growth and mature forests); or by a specific habitat element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags) of key value to fish and wildlife. A priority habitat may contain priority and/or non-priority fish and wildlife.

Priority species - Species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels, and that meet any of the criteria listed below:

- (a) State-listed or state proposed species. State-listed species are those native fish and wildlife species legally designated as endangered (WAC 232-12-014), threatened (WAC 232-12-011), or sensitive (WAC 232-12-011). State proposed species are those fish and wildlife species that will be reviewed by DFW (POL-M-6001) for possible listing as endangered, threatened, or sensitive according to the process and criteria defined in WAC 232-12-297.
- (b) Vulnerable aggregations. Vulnerable aggregations include those species or groups of animals susceptible to significant population declines, within a specific area or statewide, by virtue of their inclination to congregate. Examples include heron colonies, seabird concentrations, and marine mammal congregations.

- (c) Species of recreational, commercial, and/or tribal importance. Native and nonnative fish, shellfish, and wildlife species of recreational or commercial importance and recognized species used for tribal ceremonial and subsistence purposes that are vulnerable to habitat loss or degradation.
- (d) Species listed under the federal Endangered Species Act as proposed, threatened, or endangered.

Professional engineer - A person who, by reason of his or her special knowledge of the mathematical and physical sciences and the principles and methods of engineering analysis and design, acquired by professional education and practical experience, is qualified to practice engineering and is licensed by the State of Washington or another state.

Proposed, Threatened, and Endangered Species - Those native species that are proposed to be listed or are listed by DFW as threatened or endangered, or that are proposed to be listed or are listed as threatened or endangered under the federal Endangered Species Act.

Public access - 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. (See WAC 173-26-221(4)).

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

Public use - Public use means to be made available daily to the general public on a first-come, first-served basis, and may not be leased to private parties on any more than a day use basis. (See WAC 332-30-106)).

RCW - Revised Code of Washington.

Residential development - Development which is primarily devoted to or designed for use as a dwelling(s), including, but not limited to, single-family development, multi-family development, and the creation of new residential lots through land division.

Recreational float - A floating structure that is moored, anchored, or otherwise secured in the water offshore and that is generally used for recreational purposes such as swimming and diving.

Recreational Use or Development - Facilities such as parks, trails, and pathways, whether public, private or commercial, that provide a means for relaxation, play, or amusement. For the purposes of this SMP, recreational facilities are divided into two categories:

- (a) Water-oriented (i.e. - moorage facilities, fishing piers, recreational floats, trails, swimming beaches, overlooks, etc.); and
- (b) Non-water-oriented (i.e. - sports fields, golf courses, sport courts, etc.).

Restoration or Ecological restoration - The reestablishment or upgrading of impaired ecological shoreline processes or functions 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.

Riparian - Of, on, or pertaining to the banks of a river, stream or lake.

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

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

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

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

SEPA - see State Environmental Policy Act

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

Setback - A required open space, specified in SMPs, measured horizontally upland from and perpendicular to the OHWM.

Shall - Signifies an action is required.

Shorelands or Shoreland Areas - Those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the OHWM; floodways and contiguous flood plain areas landward two hundred (200) feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of the SMA. Shorelands in the City are limited to those areas within two hundred (200) feet of the OHWM of American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek and any associated wetlands.

Shoreline Administrator - The City of Lakewood Planning and Community Development Director or his/her designee, charged with the responsibility of administering this SMP.

Shoreline jurisdiction - All of the geographic areas covered by the SMA, related rules and the applicable SMP. In the City, shoreline jurisdiction includes American Lake, Gravelly Lake, Lake Louise, Lake Steilacoom, Waughop Lake, Chambers Creek, and Clover Creek, those areas within two hundred (200) feet of the OHWM of these water bodies, and any associated wetlands. See definitions of Shorelines, Shorelines of the state, Shorelines of statewide significance, Shorelands, and Wetlands.

Shoreline Management Act (SMA) - Chapter 90.58 RCW, as amended. Washington law adopted to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines.

Shoreline Master Program (SMP) - The comprehensive use plan and related use regulations used by local governments to administer and enforce the permit system for shoreline management. SMPs must be developed in accordance with the policies of the SMA, be approved and adopted by the state, and be consistent with the rules WACs) adopted by Ecology.

Shoreline Master Program Guidelines - The Shoreline Master Program (SMP) Guidelines are state standards which local governments must follow in drafting their shoreline master programs. The Guidelines translate the broad policies of the Shoreline Management Act (RCW 90.58.020) into standards for regulation of shoreline uses.

Shoreline modification - Those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element such as a dike, breakwater, pier, weir, dredged basin, fill, bulkhead, or other shoreline structure. They can also include other actions, such as clearing, grading, or application of chemicals.

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

Shoreline stabilization - Actions taken to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, tides, wind or wave action. These actions include structural measures such as bulkheads and nonstructural methods such as soil bioengineering.

Shoreline vegetation management plan (SVMP) - A plan prepared by an applicant that identifies appropriate mitigation, performance assurances, and maintenance and monitoring requirements necessary to assure no net loss of ecological functions.

Shorelines - All of the water areas of the state, including reservoirs and their associated shorelands, together with the lands underlying them, except those areas excluded under RCW 90.58.030(2)(d).

Shorelines Hearings Board - A state-level quasi-judicial body, created by the SMA, which hears appeals by any aggrieved party on the issuance of a shoreline permit, enforcement penalty and appeals by local government. (See RCW 90.58.170; 90.58.180).

Shorelines of statewide significance - A select category of shorelines of the state, defined in RCW 90.58.030(2)(e), where special use preferences apply and greater planning authority is granted by the SMA. SMP policies, use regulations and permit review must acknowledge the use priorities for these areas established by the SMA. (See RCW 90.58.020).

Shorelines of the state - Shorelines and shorelines of statewide significance.

Should - Signifies an action is required unless there is a demonstrated, compelling reason, based on policy of the SMA and this SMP, against taking the action.

Sign - A board or other display containing words and/or symbols used to identify or advertise a place of business or to convey information. Excluded from this definition are signs required by law and the flags of national and state governments.

Single-family residence - A detached dwelling designed for and occupied by one (1) family including those structures and developments within a contiguous ownership which are a normal appurtenance (See WAC 173-27-040(2g)).

SMA - see Shoreline Management Act.

SMP - see Shoreline Master Program.

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

Solid waste - All garbage, rubbish trash, refuse, debris, scrap, waste materials and discarded materials of all types, whether the sources be residential or commercial, exclusive of hazardous wastes, and including any and all source-separated recyclable materials and yard waste.

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

Stream - A naturally occurring body of periodic or continuously flowing water where the mean annual flow is greater than twenty (20) cubic feet per second and the water is contained within a channel (See WAC 173-22-030(8)).

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

Substantial Development - Any development of which the total cost or fair market value exceeds six thousand, four hundred, and sixteen dollars (\$6,416), or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold established in this definition must be adjusted for inflation by the Washington State Office of Financial Management every five (5) years based upon changes in the consumer price index during that time period. "Consumer price index" means, for any calendar year, that year's annual average consumer price index, Seattle, Washington area, for urban wage earners and clerical workers, all items, compiled by the Bureau of Labor and Statistics, United States Department of Labor. 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. A list of activities and developments that shall not be considered substantial development is provided in Chapter 7 (See WAC 173-27-040(2)(a)).

SVMP - see Shoreline Vegetation Management Plan.

Terrestrial - Of or relating to land as distinct from air or water.

Upland - The dry land area above and landward of the OHWM.

Utilities - Services and facilities that produce, transmit, store, process or dispose of electric power, gas, water, stormwater, sewage and communications.

Utilities, Accessory - Utilities comprised of small-scale distribution and collection facilities connected directly to development within the shoreline area. Examples include local power, telephone, cable, gas, water, sewer and stormwater service lines.

Utilities, Primary - Utilities comprised of trunk lines or mains that serve neighborhoods, areas and cities. Examples include solid waste handling and disposal sites, water transmission lines, sewage treatment facilities and mains, power generating or transmission facilities, gas storage and transmission facilities and stormwater mains and regional facilities.

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

WAC - Washington Administrative Code.

Water-dependent use - A use or a portion of a use which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations, including, but not limited to, moorage structures (including those associated with residential properties), ship cargo terminal loading areas, ferry and passenger terminals, barge loading facilities, ship building and dry docking, marinas, aquaculture, float plane facilities and sewer outfalls.

Water-enjoyment use - A recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design, and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

Water-oriented use - Refers to any combination of water-dependent, water-related, and/or water enjoyment uses.

Water quality - The physical characteristics of water within shoreline jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics. "Water quantity" refers only to development and uses regulated and affecting water quantity, such as impermeable surfaces and storm water handling practices. Water quantity does not mean the withdrawal of ground water or diversion of surface water pursuant to RCW 90.03.250 through RCW 90.03.340.

Water-related use- 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) Of a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water or,

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

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

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

9. REFERENCES

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