Ordinance 1042 Attachment A:

Lake Forest Park
Shoreline Master Program

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CHAPTER 1: INTRODUCTION

1.1 History and Requirements of the Shoreline Management Act

Washington's **Shoreline Management Act** (Act) was adopted by the public in a 1972 referendum *"to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines."* The Act has three broad policies:

1. **Encourage water-dependent uses:** "uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the states' shorelines..."

2. **Protect shoreline natural resources**, including "...the land and its vegetation and wildlife, and the water of the state and their aquatic life..."

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 Lake Forest Park, 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 use in addressing the types and effects of development occurring along the state's shorelines. By law, the City is responsible for the following:

1. Development of an inventory of the natural characteristics and land use patterns along shorelines covered by the act.

2. Preparation of a "Master Program" to determine the future of the shorelines.

3. Development of a permit system to further the goals and policies of both the act and the local Master Plan.

4. Development of a Restoration Plan that includes goals, policies and actions for restoration of impaired shoreline ecological functions.

1.2 Master Program Development and Public Participation

As a result of annexations to the City of Lake Forest Park that occurred in 1993 and 1994, the City doubled in population and area. Additionally, the City's shoreline area along Lake Washington increased from 400 linear feet to 11,769 linear feet. Under the law, this substantial increase has triggered the need for the City to amend its Shoreline Master Program (SMP).

The City of Lake Forest Park's Environmental Quality Commission (EQC) and a team of consultants initially worked on amending the City's Shoreline Management Master Program during the Fall of 1994. In order to receive public input during the development of the SMP, the EQC held two open houses and developed a survey to identify citizen opinions and receive comment on goals and policies. The SMP was also reviewed by the City Planning Commission and City Council in conjunction with public hearings; however, the Draft SMP was never adopted.

State SMP Guidelines are standards which local government must follow in drafting their master program. The Guidelines translate the broad policies of RCW 90.58.020 into standards for regulation of shoreline uses. The state legislature directed Ecology in 1995 to update the state's guidelines, which had not been revised since 1972 and were showing their age. The department proposed a first draft in 1999 and eventually adopted a substantially revised draft in 2000 that was challenged in court.

Then-Governor Gary Locke and former Attorney General Christine Gregoire co-sponsored a year-long mediation effort in 2002 that culminated in a third draft, which was issued for public comment in July 2002. That proposal had the endorsement of the Association of Washington Business (representing a coalition of business organizations, cities and counties), the Washington Aggregates & Concrete Association, the Washington Environmental Council (WEC) and other environmental organizations – all of which were parties to the lawsuit.

Ecology received about 300 comments on the version proposed in 2003. Seventeen changes were made in response to those comments, to clarify language and to delete obsolete or duplicative references. The final version was adopted December 17, 2003.

The City of Lake Forest Park obtained a grant from the Washington Department of Ecology (Ecology) in 2005 to conduct a comprehensive Shoreline Master Program (SMP) update. In the Fall of 2006, the Mayor convened a Shoreline Taskforce to provide public input and guide the preparation of a new SMP that was consistent with the new Ecology Guidelines (Chapter 173-26 WAC). This work also included preparation of a shoreline inventory and characterization report. The shoreline inventory and characterization describes existing conditions and assesses ecological functions and ecosystem-wide processes operating in the shoreline jurisdiction. This analysis serves as the baseline from which future development actions in the shoreline will be measured. The Guidelines require that the City 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.

This work also included preparation of a shoreline restoration plan, consistent with the Ecology

Guidelines. Activities that have adverse affects 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. However, the guidelines also require that shoreline master programs "shall include goals, policies and actions for restoration of impaired shoreline ecological functions." As directed by the Guidelines, the Shoreline Restoration Plan provides a 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 this Shoreline Master Program (with mitigation of project-related impacts) in combination with the 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 Lake Forest Park's shoreline environment in the long term.

The Taskforce met throughout the process and provided continual input on all aspects of the process from the time period of October 2006 through May 2007. The 1995 Draft SMP was used as a starting point in the development of an SMP that complies with the most recent Department of Ecology Guidelines (Chapter 173-26 WAC). Consistent with the Guidelines, the City conducted a cumulative impacts analysis and environmental review under the State Environmental Policy Act on the revised SMP.

1.3 Purposes of the Shoreline Master Program

The purposes of this Master Program are:

1. To carry out the responsibilities imposed on the City of Lake Forest Park by the Washington State Shoreline Management Act (RCW 90.58).
2. To promote the public health, safety, and general welfare by providing a guide and regulation for the future development of the shoreline resources of the City of Lake Forest Park.
3. To further, by adoption, the policies of RCW 90.58, and the goals of this Master Program, both which hereafter follow.

1.4 Legislative Findings and Washington Shoreline Management Policies

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

and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines.

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

1.5 Shorelines of Statewide Significance

The Shoreline Management Act designates certain shoreline areas as shorelines of statewide significance (RCW 90.58.030). Among the shorelines designated by the Act were "lakes, whether natural, artificial, or a combination thereof, with a surface acreage of one thousand acres or more measured at the ordinary high water mark, including their associated wetlands." Lake Washington, at a size of 22,138 acres, therefore is designated as having statewide significance.

Shorelines thus designated are important to the entire state. Because the Lake Forest Park shoreline along Lake Washington is a major resource from which all people in the state derive benefit, this Master Program gives preference to uses which favor public and long range goals. Accordingly, this program gives preference to uses which meet the principles outlined below, listed in order of preference. These principles are incorporated into Lake Forest Park's Shoreline Master Program:

1. Recognize and protect the statewide interest over local interest.
2. Preserve the natural character of the shoreline.
3. Result in long-term over short-term benefit.
4. Protect the resources and ecology of shorelines.
5. Increase public access to publicly owned areas of the shoreline.
6. Increase recreational opportunities for the public on the shoreline.

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

Permitted uses in the shorelines of the state shall be designed and conducted in a manner to

minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline areas and interference with the public's use of the water.

The state legislature further recognized that Lake Washington, due to its proximity to the population center of the state, is subject to considerable pressures from both the public and private sectors for further development. The large number of governmental entities that share jurisdiction over the shorelines and wetlands of Lake Washington, therefore, have certain additional duties assigned to them as a part of the Shoreline Management Act. These duties, as described in WAC 173-28, include developing shoreline policies that are consistent with other jurisdictions, and incorporating these policies into their respective master programs and ensuring full citizen input consistent with the requirements of the state Shoreline Management Act.

In addition, in 1973, the communities along the Lake Washington shoreline developed a set of more than 160 regional shoreline goals and policies to be incorporated into their individual shoreline master programs. Lake Forest Park participated in this project coordinated by the Technical Committee of the Lake Washington Regional Citizens Advisory Committee. The final report, titled The Lake Washington Regional Shoreline Goals and Policies, was released on October 31, 1973.

1.6 How the Shoreline Master Program is Used

The Lake Forest Park Shoreline Master Program is a planning document that outlines goals and policies for the shoreline of the city and establishes regulations for development occurring in that area.

In order to preserve and enhance the shoreline of Lake Forest Park it is important that all development proposals relating to the shoreline area be evaluated in terms of the City's Shoreline Master Program, and that the City Shoreline Administrator be consulted. Some developments may be exempt from regulation, while others may need to stay within established guidelines, or may require a conditional use permit application or variance application; ALL proposals must comply with the policies and regulations established by the state Shoreline Management Act as expressed through this local Shoreline Master Program adopted by Lake Forest Park.

The Shoreline Management Act defines for local jurisdictions the content and goals that should be represented in the Shoreline Master Programs developed by each community; within these guidelines, it is left to each community to develop the specific regulations appropriate to that community. Under the Act, all shorelines of the state meeting the criteria established receive a given shoreline environmental designation. The purpose of the shoreline designation system is to ensure that all land use, development, or other activity occurring within the designated shoreline jurisdiction is appropriate for that area and provides consideration for the special requirements of that environment. Lake Forest Park has designated its Lake Washington shoreline under three shoreline environments: Shoreline Residential, Urban Conservancy and Aquatic. These environments are described in *Chapter 5: Shoreline Environment Description and Designations.*

Persons proposing any shoreline development, land use, or other projects in the shoreline area must consult with the City of Lake Forest Park Shoreline Master Program Administrator (the City's Planning Director) to determine how the proposal is addressed in the Master Program. The City's Shoreline Administrator can provide assistance in identifying if a proposal is exempt from the permit process, as well as provide information on the permit application process. Requests for a variance, substantial development permit or a conditional use permit require review by the Lake Forest Park Planning Commission. This body will hold a public hearing on the proposal and vote to approve, approve with conditions, or deny the application. This advisory decision is then passed on to the Lake Forest Park Hearing Examiner for final action at the local level. Requests for conditional uses and variances require final approval by the State of Washington Department of Ecology. A description of exempt projects, shoreline application procedures and criteria are discussed in *Chapter 3: Administration*.

A description and map of the area within the jurisdiction of this Shoreline Master Program are presented in *Chapter 5: Shoreline Environment Description and Designations*.

1.7 Organization of this Shoreline Master Program

This Master Program is divided into eight Chapters:

Chapter 1: Introduction provides general background information on the state Shoreline Management Act; the development of the Shoreline Master Program in Lake Forest Park; the principles associated with Shorelines of Statewide Significance, such as Lake Washington; and a general discussion of when and how a shoreline master program is used.

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

Chapter 3: *Administration* provides the system by which the Lake Forest Park Shoreline Master Program will be administered, and provides specific information on the application process and criteria used in evaluating requests for shoreline substantial development permits, conditional use permits, and variances.

Chapter 4: Shoreline Management Goals and Policies lists the general goals and policies which guide the more detailed policies and regulations found in the individual section of the Lake Forest Park Shoreline Master Program.

Chapter 5: Shoreline Environment Description and Designations defines and maps the shoreline jurisdiction in the City of Lake Forest Park and defines and maps the environment designations of all the shorelines of the state in the City of Lake Forest Park. Policies and regulations specific to the three designated shoreline environments (Shoreline Residential, Urban Conservancy and Aquatic) are detailed in this chapter.

Chapter 6: General Regulations sets forth the policies and regulations that apply to all uses, developments, and activities in the shoreline area of Lake Forest Park. .

Chapter 7: Specific Shoreline Use Policies and Regulations 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, Commercial Development (Primary and Accessory), 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).

Chapter 8: Shoreline Modification Activity Regulations provides policies and regulations for those activities that modify the physical configuration or qualities of the shoreline area.

Appendix A contains the adopted Environmentally Sensitive Areas Regulations that apply to all critical areas and their buffers contained within shoreline jurisdiction.

1.8 Relationship of this Shoreline Master Program to Other Plans

The permitting process for a shoreline development or use does not exempt an applicant from complying with any other local, state, regional or federal statutes or regulations which may also be applicable to such development or use. In Lake Forest Park, other plans and policy documents that must be considered include the Lake Forest Park Comprehensive Plan and the King County Surface Water Design Manual. Environmentally sensitive areas within shoreline jurisdiction are regulated by the City of Lake Forest Park Environmentally Sensitive Areas Regulations for Shoreline Jurisdiction, as contained in Appendix A. Although these regulations are nearly identical to the Environmentally Sensitive Areas Regulations codified in Chapter 16.16 of the Lake Forest Park Municipal Code (Ordinance No. 930), pursuant to the requirements of the Shoreline Management Act, these regulations are distinct. Please note that certain key sensitive area provisions, including the Reasonable Use Exception, do not apply in shoreline jurisdiction. Instead, deviations from the Sensitive Areas Regulations as set forth in Appendix A are processed as a shoreline variance (see *Chapter 3: Administration* for discussion of shoreline permits). If there are conflicts between the regulations contained in the SMP, those that are the most protective of shoreline ecological functions will apply.

Proposals must also comply with the regulations developed by the City to implement its plans, such as the zoning code, as well as regulations relating to building construction and safety.

At the time of a permit application or of an initial inquiry, the City Shoreline Administrator should inform the applicant of those regulations and statutes which may be applicable to the best of the administrator's knowledge; PROVIDED, that the final responsibility for complying with such other statutes and regulations shall rest with the applicant.

1.9 Title

This document shall be known and may be cited as the **Lake Forest Park Shoreline Master Program**. This document may refer to itself as "this Master Program."

CHAPTER 2: DEFINITIONS

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 accessory.

Accretion - The growth of a beach by the addition of material transported by wind and/or water. Included are such shoreforms as barrier beaches, points, spits, and hooks.

Act - The Shoreline Management Act (Chapter 90.58 RCW and WAC 173-14-030(1)).

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

Administrator - The City Planner or his/her designee, charged with the responsibility of administering the shoreline master program.

Agriculture - The cultivation of the soil, production of crops, and/or raising of livestock, including incidental preparation of these products for human use.

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

Appurtenance - A structure or development which is necessarily connected to the use and enjoyment of a single family residence and is located landward of the ordinary high water mark and also of the perimeter of any wetland. (On a statewide basis, normal appurtenances include 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 ordinary high water mark) (see WAC 173-14-040(1g)).

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

Aquascreens - A fiberglass screen used as a bottom barrier to limit and/or control aquatic plant growth. The screen is typically anchored to an area of the lake bottom and functions as a physical barrier to prevent plants from growing on the lake bottom.

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

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

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 Shoreline Management Act. Refer to 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 ordinary high water. 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 (WAC 173-14-030(3)).

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

Best available science - Current scientific information used in the process to designate, protect, or restore critical areas, that is derived from a valid scientific process as defined by WAC 365-195-900 through 925.

BMPs - see *Best Management Practices.*

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 more closely resembling a natural beach, using beach feeding, vegetation, drift sills and other nonintrusive means as applicable.

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

Benthic organism - Organisms that live in or on the bottom of a body of water.

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

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

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

Bioengineering - see *Soil bioengineering*

Biofiltration system - A storm water or other drainage treatment system that utilizes as a primary feature 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.

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. These devices are usually located along a pier.

Boat rail or railway - A set of steel rails running from the upland area into the water upon which a cart or dolly can carry a boat to be launched.

Boathouse - A structure designed for storage of vessels located over water. Boathouses should not be confused with "houseboats".

Boating Facility – A moorage structure serving more than four single-family residences.

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

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

Building Height - See the Title 18 (Zoning) of the Lake Forest Park Building Municipal Code for the definition of *Building Height* used in this document.

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

Caliper – The American Nursery and Landscape Association standard for measurement of trunk size of nursery stock. Caliper of the trunk shall be taken six inches above the ground.

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

CFR - Code of Federal Regulations.

CZMP - Coastal Zone Management Plan.

Certified engineer/biologist - see *Professional engineer* and *Professional biologist*.

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

City - The City of Lake Forest Park.

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

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

Community structure - A building, dock, or other structure which is intended for the common use of the residents of a particular subdivision or community. It is not intended to serve as a public facility.

Comprehensive Plan - Comprehensive plan means the document, including maps adopted by the city council, that outlines the City's goals and policies relating to management of growth, and prepared in accordance with RCW 36.70A. The term also includes adopted subarea plans prepared in accordance with RCW 36.70A.

Conditional Use - A use, development, or substantial development that is classified as a conditional use or is not classified within the applicable master program. Refer to 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, with or without walls, that has a roof to protect the vessel.

Cumulative Impact - The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions 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.

DNS - Determination of Nonsignificance, under SEPA.

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

Development - A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters of the state subject to Chapter 90.58 RCW at any state of water level (RCW 90.58.030(3d)).

Diameter or diameter-breast-height (dbh) – The diameter of any tree trunk, measured at four and one-half feet above average grade. For species of trees whose normal growth habit is characterized by multiple stems (e.g., hazelnut, vine maple) diameter shall mean the average diameter of all stems of the tree, measured at a point six inches from the point where the stems digress from the main trunk. In no case shall a branch more than six inches above average grade be considered a stem. For the purposes of code enforcement, if a tree has been removed and only the stump remains, the size of the tree shall be the diameter of the top of the stump.

Dock - Commonly referred to as a floating moorage structure, but can also be used in reference to fixed-pile piers (see exemptions). See "floating dock" and "float" for definition used in this Shoreline Master Program.

Downdrift - The direction of movement of beach materials.

Dredge spoil - The material removed by dredging. Same as Dredge Material.

Dredging - Excavation or displacement of the bottom or shoreline of a water body. Dredging can be accomplished with mechanical or hydraulic machines. Most dredging is done to maintain channel depths or berths for navigational purposes; other dredging is for shellfish harvesting or for cleanup of polluted sediments.

Dwelling unit – a single unit providing complete, independent living facilities for one or more persons, not to exceed one family, and which 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.

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.

Ecology (WDOE) - The Washington State Department of Ecology.

Ell – 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.

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.

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 master program. Emergency construction is construed narrowly as that which is necessary to protect property from the elements (RCW 90.58.030(3eiii) and WAC 173-14-040(1d)).

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. Environmental impacts include effects upon the elements of the environment listed in the State Environmental Policy Act (SEPA). Refer to WAC 197-11-600 and WAC 197-11-444.

Environmentally Sensitive Areas Ordinance No. 930, Lake Forest Park - This ordinance provides the goals, policies, and implementing regulations for protecting the designated environmentally sensitive areas of Lake Forest Park. The ordinance addresses sensitive area development controls; measures important for protecting and preserving these resources; preventing or mitigating cumulative adverse environmental impacts to sensitive areas; and serves to alert the public to the development limitations of sensitive areas.

Environments, (Shoreline Environment) - Designations given 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 a Master Program.

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

Excavation - Excavation is the artificial movement of earth materials.

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.

Exemption - Certain specific developments are exempt from the definition of substantial developments and are therefore exempt from 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 master program. Conditional use and/or variance permits may also still be required even though the activity does not need a substantial development permit (RCW 90.58.030(3e); WAC 173-14-030(6) and -040). For a complete list of exemptions, see Chapter 3.

Fair market value - The expected price at which the development can be sold to a willing buyer. For developments which involve nonstructural operations such as dredging, drilling, dumping, or filling, the fair market value is the expected cost of hiring a contractor to perform the operation or where no such value can be calculated, the total of labor, equipment use, transportation and other costs incurred for the duration of the permitted project (WAC 173-14-030(7)).

Finger Pier – 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 off-shore and that is generally located at the terminal end of a fixed-pile pier.

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. Floating homes are not vessels and lack adequate self-propulsion and steering equipment to operate as a vessel. They are typically served by permanent utilities and semi-permanent anchorage/moorage facilities.

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

Floodway - means the area, as identified in a master program, that either: (i) has been established in federal emergency management agency flood insurance rate maps or floodway maps; or (ii) consists of those portions of the area of a river valley lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually, said floodway being identified, under normal condition, by

changes in surface soil conditions or changes in types or quality of vegetative ground cover condition, topography, or other indicators of flooding that occurs with reasonable regularity, although not necessarily annually. Regardless of the method used to identify the floodway, the floodway shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state;

Forest Practices – areas not covered by the Forest Practices Act, especially Class IV – General forest practices involving conversion to non-forest use.

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. Its purpose is to protect a shoreline and adjacent upland by influencing the movement of water and/or deposition of materials. This is accomplished by building or preserving an accretion beach on its updrift side by trapping littoral drift. A groin is relatively narrow in width but varies greatly in length. A groin is sometimes built in a series as a system and may be permeable or impermeable, high or low, and fixed or adjustable.

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

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

Harbor - the area of navigable waters as determined in Section 1 of Article 15 of the Washington Constitution, which shall be forever reserved for landings, wharves, streets, and other conveniences of navigation and commerce.

Hard Structural Shoreline Stabilization - Shore erosion control practices using hardened structures that armor and stabilize the shoreline from further erosion. Hard structural shoreline stabilization typically uses concrete, boulders, dimensional lumber or other materials to construct linear, vertical or near-vertical faces that are located at or waterward of ordinary high water, as well those structures located on average within five (5) feet landward of OHWM. These include bulkheads, rip-rap, groins, retaining walls and similar structures.

Hazard tree – A tree that has a combination of structural defects and/or disease which makes it subject to a high probability of failure and is in proximity to moderate-high frequency of persons or property and the hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the target be removed.

Hearing Examiner - The Hearing Examiner of the City of Lake Forest Park.

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: *provided further*, that temporary construction equipment is excluded in this calculation (WAC 173-14-030(9)). See also *Building Height.*

Heliport - any landing area or other facility owned and operated, and which is designed, 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.

Houseboat - A vessel, principally used as an over water residence. Houseboats are licensed and designed for use as a mobile structure with detachable utilities or facilities, anchoring and the presence of 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 months in any one calendar year. This definition includes live-aboard vessels.

Hydric soils - Generally, soils which are, or have had a history of being, wet long enough to periodically produce anaerobic conditions, thereby influencing the growth of plants (WAC 173-22-030(5)).

Hydrophytes - Those plants capable of growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content (WAC 173-22-030(5)).

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

Interested party - Synonymous with "party of record", and means all persons who have notified local government of their desire to receive a copy of the final order on a permit under WAC 173-14-070 (WAC 173-14-030(12)).

Lacustrine (also lacustrian) - Of, on, or pertaining to lakes.

Lake - A body of standing water in a depression of land or expanded part of a river, including reservoirs, of twenty (20) acres or greater in total area. A lake is bounded by the ordinary high water mark or, where a stream enters a lake, the extension of the elevation of the lake's ordinary high water mark within the stream (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) or the creation of, or addition to, an in-water area (waterward of the OHWM) by depositing material into waters or onto shoreline, upland dry areas, or wetland areas.

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 also *Boat launch or ramp* and *Boat railway.*

Launching ramp - See also *Boat launch or ramp* and *Boat railway.*

Liberal construction - A legal concept instructing parties interpreting a statute to give an expansive meaning to terms and provisions within the statute. The goal of liberal construction is to give full effect in implementing a statute's requirements. See RCW 90.58.900.

Littoral - Living on, 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 facility that provides launching, storage, supplies, moorage, and other accessory services for six or more pleasure boats and/or commercial watercraft.

May - "May" means the action is acceptable, provided it conforms to the provisions of this chapter.

Mitigation or Mitigation Sequencing - The process of avoiding, reducing, or compensating for the environmental impact(s) of a proposal. See WAC 197-11-768 and WAC 173-26-020 (30). Mitigation or mitigation sequencing means the following sequence of steps listed in order of priority, with (a) of this subsection being top priority:

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 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.

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 that are 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.

Mooring buoy - A floating object anchored to the bottom of a water body that provides tie up capabilities for vessels.

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

Must - "Must" means a mandate; the action is required.

NEPA - National Environmental Policy Act - NEPA requires federal agencies to consider environmental factors when making decisions, especially for development proposals of a significant scale. As part of the NEPA process, EISs are prepared and public comment is solicited.

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

Natural riparian habitat corridor - The streamside environment designed and maintained primarily for fisheries and wildlife habitat, water quality improvements and secondarily for flood control works.

NFIP - National Flood Insurance Program.

NOAA - National Oceanic and Atmospheric Administration.

Nonconforming use or development - A shoreline use or structure which was lawfully constructed or established prior to the effective date of the applicable SMA/SMP provision, and which no longer conforms to the applicable shoreline provisions (WAC 173-14-055(1)).

Normal maintenance - Those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition (WAC 173-14-040(1b)). See also *Normal repair*.

Normal protective bulkhead - A bulkhead, common to single family residences, constructed at or near the ordinary high water mark to protect an existing single family residence, and which sole purpose is for protecting land from erosion, not for the purpose of creating new land (WAC 173-14-040(1c)).

Normal repair - To restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction except where repair involves total replacement which is not common practice or causes substantial adverse effects to the shoreline resource or environment (WAC 173-14-040(1b)). See also *Normal maintenance*.

Nuisance tree – A tree that is causing obvious physical damage to structures, including but not limited to sidewalk, curb, road, driveway, parking lot, building foundation, or roof, and the problems associated with the tree must be such that they cannot be corrected by any other reasonable practice.

OHWM, Ordinary High Water Mark - That mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department: *provided*, that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining fresh water shall be the line of mean high water. See RCW 90.58.030(2)(b) and WAC 173-22-030(6).

Off-site replacement - To replace wetlands or other shoreline environmental resources away from the site on which a resource has been impacted by a regulated activity.

Oil separator - Specialized catch basins that are designed to trap oil and other materials lighter than water in the basin while allowing the water to escape through the drainage system. Commonly employed in parking lots and streets.

On-site replacement - To replace wetlands or other shoreline environmental resources at or adjacent to the site on which a resource has been impacted by a regulated activity.

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

Permit (or Shoreline Permit) - Any substantial development, variance or conditional use permit,

or revision, or any combination thereof, authorized by the Act. Refer to WAC 173-27-030(13).

Pier - a fixed, pile-supported structure.

Practicable alternative - An alternative that is available and capable of being carried out after taking into consideration short-term and long-term cost, options of project scale and phasing, existing technology and logistics in light of overall project purposes.

Primary Structure - A structure housing the main or principal use of the lot on which the structure is situated, including a detached garage associated with the primary structure. This term shall not include accessory uses or structures.

Primary Use - The main or principal use of the lot.

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:

- Comparatively high fish or wildlife density;
- Comparatively high fish or wildlife species diversity;
- Fish spawning habitat;
- Important wildlife habitat;
- Important fish or wildlife seasonal range;
- Important fish or wildlife movement corridor;
- Rearing and foraging habitat;
- Important marine mammal haul-out;
- Refugia habitat;
- Limited availability;
- High vulnerability to habitat alteration;
- Unique or dependent species; or
- 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). A priority habitat may also be described by a successional stage (such as, old growth and mature forests). Alternatively, a priority habitat may consist of 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 nonpriority fish and wildlife.

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

(a) Criterion 1. 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 the department of fish and wildlife (POL-M-6001) for possible listing as endangered, threatened, or sensitive according to the process and criteria defined in WAC 232-12-297.

(b) Criterion 2. 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) Criterion 3. 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) Criterion 4. Species listed under the federal Endangered Species Act as either proposed, threatened, or endangered.

Professional biologist - A specialist with education and training in the area of natural sciences concerned with the plants and animal life of a region.

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.

Public access - Public access is 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. Refer to 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 (WAC 173-14-030(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. Refer to WAC 332-30-106.

Qualified tree professional – An individual with relevant education and training in arboriculture or urban forestry. The individual must be an arborist certified by the International Society of Arboriculture or a registered consulting arborist from the American Society of Consulting Arborists. A qualified tree professional must possess the ability to perform tree risk assessments and prescribe appropriate measures necessary for the preservation of trees during land development.

RCW - Revised Code of Washington.

RCW 90.58 - The Shoreline Management Act of 1971.

Recreational facilities - Facilities such as parks, trails, and pathways that provide a means for relaxation, play, or amusement. For the purposes of this Master Program, recreational facilities are divided into two categories:

1. Water-dependent (i.e. – boating facilities, fishing piers, swim rafts) and
2. Non-water-dependent (i.e. – sports fields, golf courses, and RV camping)

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

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

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

Retrieval Lines - A system by which a float or other floating object is retrieved to a pier, dock, or shoreland.

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.

SEPA - see *State Environmental Policy Act*

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

SMA - see *Shoreline Management Act*

SMP - see *Shoreline Master Program*

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

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

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

Shall - "Shall" means a mandate; the action must be done.

Shoreline Administrator - The City of Lake Forest Park Planning Director or his/her designee, charged with the responsibility of administering the shoreline master program.

Shoreline environment designations - The categories of shorelines established by local shoreline master programs in order to provide a uniform basis for applying policies and use regulations within distinctively different shoreline areas. See WAC 173-16-040(4).

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

Shoreline Management Act of 1971 - Chapter 90.58 RCW, as amended.

Shoreline Master Program (SMP) - The comprehensive use plan and related use regulations which are used by local governments to administer and enforce the permit system for shoreline management. Master programs 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 permit - A substantial development, conditional use, revision, or variance permit or any combination thereof (WAC 173-14-030(13)).

Shoreline Stabilization **-** Means for protecting shoreline upland areas and shoreline uses from the effects of shoreline wave action, flooding or erosion. Shoreline stabilization includes structural and non-structural methods, riprap, bulkheads, gabions, jetties, dikes and levees, flood control weirs, and bioengineered walls or embankments.

Shorelines - All of the water areas of the state, including reservoirs and their associated uplands, together with the lands underlying them, except those areas excluded under RCW 90.58.030(2)(d). See RCW 90.58.030 (2)(d) and WAC 173-18, 173-19 and 173-22.

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 on Ecology approval of master programs, rules, regulations, guidelines or designations under the SMA. See RCW 90.58.170; 90.58.180; and WAC 173-14-170; 173-14-174.

Shorelines of statewide significance - A select category of shorelines of the state, defined in RCW 90.58.030(2)(e), where special preservationist policies apply and where greater planning authority is granted by the SMA. 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 - "Should" means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Shoreline Management Act and this Master Program, 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 tree – Any healthy tree six inches or greater in diameter (dbh).

Single- family residence - A detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance (WAC 173-14-040(1g)).

Soft Structural Shoreline Stabilization **-** Shore erosion control and restoration practices that contribute to restoration, protection or enhancement of shoreline ecological functions. Soft shoreline stabilization typically includes a mix of gravels, cobbles, boulders, logs and native vegetation placed to provide shore stability in a non-linear, sloping arrangement.

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

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.

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

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

Streamway - A general term describing the bed and banks of a stream.

Structural Shoreline Stabilization - Means for protecting shoreline upland areas and shoreline uses from the effects of shoreline wave action, flooding or erosion that incorporate structural methods, including both hard structural shoreline stabilization methods and soft structural shoreline stabilization measures.

Structure - A permanent or temporary edifice or building, or any piece of work artificially built or composed of parts joined together in some definite manner, whether installed on, above or below the surface of the ground or water, except for vessels (WAC 173-14-03015)).

Substantial Development - Any development of which the total cost or fair market value exceeds five thousand dollars ($5,000), or any development which materially interferes with the normal public use of the water or shorelines of the state. A list of activities and developments that shall not be considered substantial development is provided in Chapter 3;

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

Tree removal – The direct or indirect removal of a tree(s) or vegetation through actions including, but not limited to: clearing, cutting, causing irreversible damage to roots or trunks; poisoning; destroying the structural integrity of trees or vegetation; filling, excavating, grading, or trenching in the dripline; or relocating an existing tree to a new planting location; or the removal through any of these processes of greater than 30 percent of the height, size or bulk of a significant tree.

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

Variance - A means to grant relief from the specific bulk, dimensional or performance standards specified in the applicable master program. Variance permits must be specifically approved, approved with conditions, or denied by Ecology (See WAC 173-14-150).

Viable tree – A significant tree that a qualified tree professional has determined to be in good health, with a low risk of failure due to structural defects, is relatively windfirm if isolated or exposed, and is a species that is suitable for its location.

WAC - Washington Administrative Code.

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

Water-oriented use- Refers to any combination of water-dependent, water-related, and/or water enjoyment uses and serves as an all encompassing definition for priority uses under the SMA. Non-water-oriented serves to describe those uses which have little or no relationship to the shoreline and are not considered priority uses under the SMA. Examples include professional offices, automobile sales or repair shops, mini-storage facilities, multifamily residential development, department stores and gas stations.

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.

Water quality - The physical characteristics of water within shoreline jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics. Where used in this chapter, the term "water quantity" refers only to development and uses regulated under this chapter and affecting water quantity, such as impermeable surfaces and storm water handling practices. Water quantity, for purposes of this chapter, does not mean the withdrawal of ground water or diversion of surface water pursuant to RCW 90.03.250 through RCW 90.03.340.

Watershed restoration plan - A plan developed or sponsored by the Department of Fish and Wildlife, the Department of Ecology, and/or the Department of Transportation acting within or pursuant to its authority, a city, a county or a conservation district that provides a general program and implementation measures or actions for the preservation , restoration, re-creation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to 43.21C RCW, the State Environmental Policy Act.

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

Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands

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

CHAPTER 3: ADMINISTRATION

3.1 Introduction

There is hereby established an administrative system designed to assign responsibilities for implementation of the Master Program 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 Master Program are treated in a fair and equitable manner.

3.2 Program Administrator

A. The **City's Planning Director** is hereby vested with:

1. Overall responsibility for administering the Shoreline Management Act and this Master Program;

2. Authority to approve, approve with conditions, or deny shoreline permit revisions in accordance with the policies and provisions of this Master Program; and

3. Authority to grant statements of exemption from shoreline substantial development permits in accordance with the policies and provisions of this Master Program.

B. The duties and responsibilities of the Shoreline Administrator shall include:

1. Preparing and using application forms deemed essential for the administration of this Master Program.

2. Advising interested citizens and applicants of the goals, policies, regulations, and procedures of this Master Program.

3. Making administrative decisions and interpretations of the policies and regulations of this Master Program and the Shoreline Management Act.

4. Collecting applicable fees, as established by the City.

5. Determining that all applications and necessary information and materials are provided.

6. Conducting field inspections, as necessary.

7. Reviewing, insofar as possible, all provided and related information deemed necessary for appropriate applications needs.

8. Determining if a shoreline substantial development permit, conditional use permit or variance permit 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 permits.

11. Submitting variance, conditional use and substantial development permit 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 as required for effective and equitable implementation of this program and the Act.

14. Investigating, developing, and proposing amendments to this Master Program as deemed necessary to more effectively and equitably achieve its goals and policies.

15. Seeking remedies for alleged violations of this program, the provisions of the Act and this Master Program, or of conditions of any approved shoreline permit issued by the City of Lake Forest Park.

16. Acting as the primary liaison between local and state agencies in the administration of the Shoreline Management Act and this Master Program.

17. Forwarding shoreline permits to the Department of Ecology for filing or action.

3.3 Shoreline Permits and Exemptions

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

B. A substantial shoreline development permit is required per the following guidelines:

1. A development, use, or activity shall not be undertaken within the jurisdiction of the SMA, Chapter 90.58 RCW, and this shoreline Master Program unless it is

consistent with the policy and procedures of the SMA, applicable state regulations and this shoreline Master Program.

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

C. The following guidelines are to be used in determining whether or not a development proposal is exempt from the substantial shoreline development permit.

1. Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemption from the substantial development permit process.

2. An exemption from the substantial development permit process is not an exemption from compliance with the Shoreline Management Act or this Shoreline Master Program, nor from any other regulatory requirements. To be authorized, all uses and developments must be consistent with the policies and provisions of this Shoreline Master Program and the Shoreline Management Act. A development or use that is listed as a conditional use pursuant to this Shoreline Master Program or is an unlisted use, must obtain a conditional use permit even though the development or use does not require a substantial development permit. When a development or use is proposed that does not comply with the bulk, dimensional and performance standards of this Shoreline Master Program, such development or use can only be authorized by approval of a variance.

3. The burden of proof that a development or use is exempt from the permit process is on the applicant.

4. If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire proposed development project.

5. The City's Shoreline Administrator may attach conditions to the approval of exempted developments and/or uses as necessary to assure consistency of the project with the Shoreline Management Act and this Shoreline Master Program.

6. The following list outlines twelve (12) exemptions that shall <u>not</u> be considered substantial developments for the purpose of this Master Program:

a. Any development of which the total cost or fair market value, whichever is higher, does not exceed five thousand ($5,000) dollars, if such development does not materially interfere with the normal public use of the water or "shorelines of statewide significance." The dollar threshold established in this

subsection must be adjusted for inflation by the Office of Financial Management every five years, beginning July 1, 2007, 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 Office of Financial Management must calculate the new dollar threshold and transmit it to the office of the code reviser for publication in the *Washington State Register* at least one month before the new dollar threshold is to take effect. For purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on "shorelines of statewide significance." The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials;

b. Normal maintenance or repair of existing structures or developments, including damage by accident, fire, or elements. "Normal maintenance" includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to the shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including, but not limited to, its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environment;

c. Construction of a normal protective bulkhead common to single family residences. A "normal protective bulkhead" includes those structural and nonstructural developments installed at or near, and parallel to the ordinary high water markfor the sole purpose of protecting an existing single family residence and appurtenant structures from loss or damage by erosion., A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land. When a vertical or near vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used as backfill. When an existing bulkhead is being repaired by construction of a vertical wall fronting the existing wall, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings. When a bulkhead has deteriorated such that an ordinary high water mark has been established by the presence and action of water landward of the bulkhead, then the replacement bulkhead must be located at or near the actual ordinary high water mark. Beach nourishment and bioengineered erosion control projects may be considered a normal

protective bulkhead when any structural elements are consistent with the above requirements and when the project has been approved by the Washington Department of Fish and Wildlife;

d. Emergency construction necessary to protect property from damage by the elements. An "emergency" is an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with the Act or this Master Program. Emergency construction does not include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the Shoreline Administrator to be the appropriate means to address the emergency situation, upon abatement of the emergency situation the new structure shall be removed or any permit which would have been required, absent an emergency, pursuant to the Act and this Master Program, obtained. All emergency construction shall be consistent with the policies of the Act and this Master Program. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency;

e. Construction by an owner, lessee, or contract purchaser of a single-family residence for their own use or for the use of their family, which residence does not exceed a height of thirty-five (35) feet above average grade level and meets all requirements of the City of Lake Forest Park having jurisdiction thereof, other than requirements imposed pursuant to the Act. "Single-family residence" means a detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance. An "appurtenance" is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the ordinary high water mark and the perimeter of a wetland. Normal appurtenances include a garage, deck, driveway, utilities, fences, installation of a septic tank and drainfield, and grading which does not exceed two hundred fifty cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark. Construction authorized under this exemption shall be located landward of the ordinary high water mark;

f. Construction of a dock, including a community dock, designed for pleasure craft only, for the private noncommercial use of the owner, lessee, or contract purchaser of single-family and multiple-family residences. A dock is a landing and moorage facility for watercraft and does not include recreational decks, storage facilities or other appurtenances. This exception applies if the fair market value of the dock does not exceed ten thousand dollars ($10,000), but if subsequent construction having a fair market value exceeding two thousand five hundred dollars ($2,500) occurs within five years of completion of the prior construction, the subsequent construction shall be considered a substantial development for the purpose of this chapter.

g. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with the normal public use of the surface waters;

h. Any project with certification from the Governor pursuant to Chapter 80.50 RCW.

i. Site exploration and investigation activities that are prerequisite to preparation of an application for development authorization under this chapter, if:

i. The activity does not interfere with the normal public use of the surface waters;

ii. The activity will have no significant adverse impact on the environment including but not limited to fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values;

iii. The activity does not involve the installation of any structure, and upon completion of the activity the vegetation and land configuration of the site are restored to conditions existing before the activity;

iv. A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to the local jurisdiction to ensure that the site is restored to preexisting conditions.

j. The process of removing or controlling aquatic noxious weeds, as defined in RCW 17.26.020, through the use of an herbicide or other treatment methods applicable to weed control that are recommended by a final environmental impact statement published by the Department of Agriculture or the Department of Ecology jointly with other state agencies under chapter 43.21C RCW;

k. Watershed restoration projects as defined in WAC 173-27-040. The Shoreline Administrator shall review the projects for consistency with the Shoreline Master Program in an expeditious manner and shall issue its decision along with any conditions within forty-five (45) days of receiving all materials necessary to review the request for exemption from the applicant. No fee may be charged for accepting and processing requests for exemption for watershed restoration projects.

i. Watershed restoration project" means a public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or a part of the plan and consists of one or more of the following activities:

1. A project that involves less than ten miles of stream reach, in which less than twenty-five (25) cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no

existing vegetation is removed except as minimally necessary to facilitate additional plantings;

2. A project for the restoration of an eroded or unstable stream bank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; or

3. A project primarily designed to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state, provided that any structure, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than two hundred square feet in floor area and is located above the ordinary high water mark of the stream.

ii. "Watershed restoration plan" means a plan, developed or sponsored by the Washington Department of Fish and Wildlife, the Department of Ecology, the Department of Natural Resources, the Department of Transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a city, a county, or a conservation district that provides a general program and implementation measures or actions for the preservation, restoration, re-creation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to chapter 43.21C RCW, the State Environmental Policy Act;

l. A public or private project that is designed to improve fish or wildlife habitat or fish passage, when all of the following apply:

i. The project has been approved in writing by the Washington Department of Fish and Wildlife;

ii. The project has received Hydraulic Project Approval by the Washington Department of Fish and Wildlife pursuant to chapter 77.55 RCW; and

iii. The Shoreline Administrator has determined that the project is substantially consistent with this Shoreline Master Program. The Shoreline Administrator shall make such determination in a timely manner and provide it by letter to the project proponent. Fish habitat enhancement projects that conform to the provisions of RCW 77.55.181 are determined to be consistent with this Master Program, as follows:

1. In order to receive the permit review and approval process created in this section, a fish habitat enhancement project must meet the following criteria:

I) A fish habitat enhancement project must be a project to accomplish one or more of the following tasks:

- Elimination of human-made fish passage barriers, including culvert repair and replacement;
- Restoration of an eroded or unstable streambank employing the principle of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; or
- Placement of woody debris or other instream structures that benefit naturally reproducing fish stocks.

The Department of Fish and Wildlife shall develop size or scale threshold tests to determine if projects accomplishing any of these tasks should be evaluated under the process created in this section or under other project review and approval processes. A project proposal shall not be reviewed under the process created in this section if the department determines that the scale of the project raises concerns regarding public health and safety; and

II) A fish habitat enhancement project must be approved in one of the following ways:

- By the Department of Fish and Wildlife pursuant to chapter 77.95 or 77.100 RCW;
- By the sponsor of a watershed restoration plan as provided in chapter 89.08 RCW;
- By the Department of Ecology as a Department of Fish and Wildlife-sponsored fish habitat enhancement or restoration project;
- Through the review and approval process for the Jobs for the Environment program;
- Through the review and approval process for conservation district-sponsored projects, where the project complies with design standards established by the conservation commission through interagency agreement with the United States Fish and Wildlife Service and the Natural Resource Conservation Service;

- Through a formal grant program established by the legislature or the Department of Fish and Wildlife for fish habitat enhancement or restoration; and

- Through other formal review and approval processes established by the legislature.

2. Fish habitat enhancement projects meeting the criteria of (l)(iii)(1) of this subsection are expected to result in beneficial impacts to the environment. Decisions pertaining to fish habitat enhancement projects meeting the criteria of (l)(iii)(1) of this subsection and being reviewed and approved according to the provisions of this section are not subject to the requirements of RCW 43.21C.030 (2)(c).

3. I) A hydraulic project approval permit is required for projects that meet the criteria of (l)(iii)(1) of this subsection and are being reviewed and approved under this section. An applicant shall use a Joint Aquatic Resource Permit Application form developed by the Office of Regulatory Assistance to apply for approval under this chapter. On the same day, the applicant shall provide copies of the completed application form to the Department of Fish and Wildlife and to the Shoreline Administrator. The Shoreline Administrator shall accept the application as notice of the proposed project. The Department of Fish and Wildlife shall provide a fifteen-day (15) comment period during which it will receive comments regarding environmental impacts. Within forty-five (45) days, the Department of Fish and Wildlife shall either issue a permit, with or without conditions, deny approval, or make a determination that the review and approval process created by this section is not appropriate for the proposed project. The Department of Fish and Wildlife shall base this determination on identification during the comment period of adverse impacts that cannot be mitigated by the conditioning of a permit. If the Department of Fish and Wildlife determines that the review and approval process created by this section is not appropriate for the proposed project, the Department of Fish and Wildlife shall notify the applicant and the appropriate local governments of its determination. The applicant may reapply for approval of the project under other review and approval processes.

   II) Any person aggrieved by the approval, denial, conditioning, or modification of a permit under this section may formally appeal the decision to the Hydraulic Appeals Board pursuant to the provisions of this chapter.

4. No local government may require permits or charge fees for fish habitat enhancement projects that meet the criteria of (l)(iii)(1) of this

subsection and that are reviewed and approved according to the provisions of this section.

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

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

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

3.4 Permit Application

Any person(s) who wishes to conduct substantial development within the geographical jurisdiction of this Master Program shall apply to the City of Lake Forest Park through the Administrator for a shoreline permit. A shoreline permit is considered the last local governmental approval prior to construction or issuance of a building permit. If a proposal involves other governmental approvals, as in a rezone, these other issues shall be resolved prior to final action on a shoreline permit application. Some shoreline projects may also require permits from state and federal agencies before they may begin construction or activity.

Table 3.1 Permit Process by Shoreline Permit or Action Type

TYPE OF SHORELINE PERMIT OR SHORELINE-RELATED ACTION	CLASSIFICATION OF DECISIONS	DECISION MAKER	DECISION TIMEFRAME	APPEAL AUTHORITY
Exemption	*Type III – Administrative Decision*	*Shoreline Administrator or his/her designee*	*Not to exceed 120 days, unless the City makes written findings that a specified amount of additional time is needed*	*Hearing Examiner, then State of Washington Shoreline Hearings Board*
Shoreline Substantial Development Permit (SDP)	*Type I – Quasi-Judicial Decision*	*Hearing Examiner*	*Not to exceed 120 days, unless the City makes written findings that a specified amount of additional time is needed*	*State of Washington Shoreline Hearings Board*
Shoreline Conditional Use Permit (CUP)	*Type I – Quasi-Judicial Decision*	*Hearing Examiner and Ecology*	*Not to exceed 120 days, unless the City makes written findings that a specified amount of additional time is needed*	*State of Washington Shoreline Hearings Board*
Shoreline Variance	*Type I – Quasi-Judicial Decision*	*Hearing Examiner and Ecology*	*Not to exceed 120 days, unless the City makes written findings that a specified amount of additional time is needed*	*State of Washington Shoreline Hearings Board*

The applicant must complete the necessary application forms provided by the Administrator for shoreline substantial development, conditional use and variance permits, in accordance with WAC 173-14-110.

Permit Process

A. A completed application and documents for all shoreline permits shall be submitted to the Administrator for processing and review. Any deficiencies in the application or

document shall be corrected by the applicant prior to further processing.

B. Application fees in an amount established by ordinance shall be paid to the City of Lake Forest Park at the time of the application.

C. Posting and Publishing

1. Within ten (10) days from receiving a complete application and associated information, the Administrator shall mail notice of the proposed project by certified mail to all real property owners of record within three hundred (300) feet of the boundaries of the property involved in the application, and shall require the applicant to post notice (minimum of 8" by 10" in size and in a waterproof sleeve) in a conspicuous manner on the property upon which the project is to be constructed.

2. The Administrator shall be responsible for delivering the legal notice containing the information required by WAC 173-14-070 to the newspaper to be published at least once a week on the same day of the week for two consecutive weeks in a newspaper of general circulation within the area in which the development is proposed. Advertising costs will be the responsibility of the applicant.

D. Application Review - Administrator Action:

1. The burden of proving that a proposed development is consistent with the approval criteria and Master Program policies and regulations rests with the applicant.

2. The Shoreline Administrator shall make recommendations in the case of variance, conditional use and substantial development permits and decisions in the case of exemptions, or requests for revisions to approved permits pursuant to the following section in this chapter on *Revisions to Permits*.

E. Hearing Examiner Review

1. The Lake Forest Park Hearing Examiner shall make the final decision at the local level for conditional use, variance and substantial development applications.

2. The Lake Forest Park Hearing Examiner shall review the recommendations prepared by the Lake Forest Park Shoreline Administrator and make the final decision to approve, approve with conditions, or deny the permit application. The Hearing Examiner may choose to take additional public testimony.

3. The decisions of the Hearing Examiner shall be the final decision of the City of Lake Forest Park on all applications, unless appealed, and the Hearing Examiner shall render a written decision including finding, conclusions, and a final order, and transmit copies of the decision within eight (8) days of the final decision to the following:

a. The applicant;

b. The Washington State Department of Ecology;

c. The Washington State Attorney General;

d. Interested parties; and

e. Appellants.

F. Public Hearings

For the purposes of scheduling a public hearing, the date of submittal of a complete application shall be considered the date of application. The minimum allowable time required from the date of application to the Lake Forest Park Hearing Examiner review shall be forty-five (45) days; a final decision on the application will be made by the Hearing Examiner following this period. Any interested person may submit his or her written views upon the application to the City within thirty (30) days of application or notify the City of his or her wish to receive a copy of the action taken upon the application. All persons who so submit their views shall be notified in a timely manner of the action taken upon the application.

G. Washington State Department of Ecology Review

1. After City approval of a conditional use or variance permit, the City shall submit the permit to the Department of Ecology for Ecology's approval, approval with conditions, or denial. Ecology shall render and transmit to the City and the applicant its final decision approving, approving with conditions, or disapproving the permit within thirty (30) days of the date of submittal by the City pursuant to WAC 173-27-110.

2. The Department of Ecology shall review the complete file submitted by the City on conditional use and variance permits and any other information submitted or available that is relevant to the application. The Department of Ecology shall base its determination to approve, approve with conditions or deny a conditional use permit or variance on consistency with the policy and provisions of the Shoreline Management Act and, except as provided in WAC 173-27-210, and the criteria in WAC 173-27-160 and 173-27-170.

3. The City shall provide timely notification of the Department of Ecology's final decision to those interested persons having requested notification from the City pursuant to WAC 173-27-130.

H. Performance Bonds

To guarantee that conditions imposed in conjunction with permit approval are completed, the City may require the applicant to post a performance bond in an amount satisfactory to the

City. Any such bond shall be from a reputable bonding company in a form acceptable to the City Attorney.

I. Commencement of Activity

If a permit is approved, the applicant or any other party authorized to conduct activities or uses by the decision shall not begin construction, development, or any authorized use or activity until after the thirty (30) day appeal period is over and any appeals concluded. Construction or use may occur during the time a court appeal is underway provided: (1) the permit was approved by the local government and the State of Washington Shorelines Hearing Board and (2) permission is granted for the construction, use or activity under RCW 90.58.140(5)(b) or its successor.

J. Duration of Permits

1. The time requirements of this section shall apply to all substantial development permits and to any development authorized pursuant to a variance or conditional use permit authorized by this chapter:

    a. Construction activities shall be commenced or, where no construction activities are involved, the use or activity shall be commenced within two (2) years of the effective date of the permit

    b. Authorization to conduct development activities shall terminate five (5) years after the effective date of the permit: *provided*, that the City may authorize a single extension before the end of the time limit, if a request for extension has been filed before the expiration date and with prior notice to parties of record and the Department of Ecology, for up to one (1) year based on reasonable factors.

    c. The running of a permit time period shall not include the time during which an activity was not actually pursued due to the pendency of reasonably related administrative appeals or legal action or due to the need to obtain any other government permits and approvals for the development that authorize the development to proceed, including all reasonably related administrative or legal actions on any such permits or approvals.

    d. When permit approval is based on conditions, such conditions shall be satisfied prior to occupancy or use of a structure or prior to commencement of a nonstructural activity: *provided*, that an alternative compliance limit may be specified in the permit.

    e. Revisions to permits under WAC 173-27-100 may be authorized after original permit authorization has expired under subsection (b) of this section: *provided*, that this procedure shall not be used to extend the

original permit time requirements or to authorize substantial development after the time limits of the original permit.

3.5 Revisions to Permits

A. A permit revision is required whenever the applicant proposes substantive changes to the design, terms or conditions of a project from that which is approved in the permit. Changes are substantive if they materially alter the project in a manner that relates to its conformance to the terms and conditions of the permit, the Master Program or the policies and provisions of chapter 90.58 RCW. Changes that are not substantive in effect do not require approval of a revision.

B. When an applicant seeks to revise a substantial development, conditional use, or variance permit, the Shoreline Administrator shall request from the applicant detailed plans and text describing the proposed changes.

C. If the Shoreline Administrator determines that the proposed changes are within the scope and intent of the original permit, and are consistent with this Master Program and the Act, the Shoreline Administrator may approve a revision.

D. "Within the scope and intent of the original permit" means the following:

1. No additional over water construction is involved except that pier, dock, or float construction may be increased by five hundred square feet or ten percent from the provisions of the original permit, whichever is less.

2. Ground area coverage and height may be increased a maximum of ten percent from the provisions of the original permit.

3. The revised permit does not authorize development to exceed height, lot coverage, setback, or any other requirements of this Master Program except as authorized under a variance granted as the original permit or a part thereof.

4. Additional or revised landscaping is consistent with any conditions attached to the original permit and with this Master Program.

5. The use authorized pursuant to the original permit is not changed.

6. No adverse environmental impact will be caused by the project revision.

E. Revisions to permits may be authorized after original permit authorization has expired under RCW 90.58.143. The purpose of such revisions shall be limited to authorization of changes which are consistent with this section and which would not require a permit for the development or change proposed under the terms of chapter 90.58 RCW and this Shoreline Master Program. If the proposed change constitutes substantial development then a new permit is required. Provided, this subsection shall not be used to extend the

time requirements or to authorize substantial development beyond the time limits of the original permit.

F. If the sum of the revision and any previously approved revisions under former WAC 173-14-064 or this section violate the provisions in subsection D of this section, the City shall require that the applicant apply for a new permit.

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

H. If the revision to the original permit involves a conditional use or variance, the Shoreline Administrator shall submit the revision to Ecology for Ecology's approval, approval with conditions, or denial, and shall indicate that the revision is being submitted under the requirements of this subsection. Ecology shall render and transmit to the Shoreline Administrator and the applicant its final decision within fifteen (15) days of the date of Ecology's receipt of the submittal from the Shoreline Administrator. The Shoreline Administrator shall notify parties of record of Ecology's final decision.

I. The revised permit is effective immediately upon final decision by the Shoreline Administrator or, when appropriate under subsection F of this section, upon final action by Ecology.

J. Appeals shall be in accordance with RCW 90.58.180 and shall be filed within twenty-one (21) days from the date of receipt of the Shoreline Administrator's action by Ecology or, when appropriate under subsection F of this section, the date Ecology's final decision is transmitted to the Shoreline Administrator and the applicant. Appeals shall be based only upon contentions of noncompliance with the provisions of subsection D of this section. Construction undertaken pursuant to that portion of a revised permit not authorized under the original permit is at the applicant's own risk until the expiration of the appeals deadline. If an appeal is successful in proving that a revision is not within the scope and intent of the original permit, the decision shall have no bearing on the original permit.

3.6 Local Appeals

Any decision made by the Administrator on an exemption, Master Program policy or regulation interpretation, permit revision, or other action within the responsibility of the Administrator, may be appealed by the applicant, private or public organization, or individual to the Hearing Examiner within ten (10) calendar days following the issuance of a written decision by the Administrator, or otherwise becomes effective. Such appeals shall be initiated by filing with the Administrator a notice of appeal setting forth the action being appealed and the principal points upon which the appeal is based, together with a filing fee as prescribed by ordinance.

3.7 Appeal to the State Shoreline Hearings Board

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

3.8 Variances and Conditional Use Permits

The Shoreline Management Act states that Master Programs shall contain provisions covering variances and conditional uses that are consistent with WAC 173-27. These provisions should be applied in a manner which, while protecting the environment, will assure that a person will be able to use his/her property in a fair and equitable manner.

A. Variances:

The purpose of a variance permit is strictly limited to granting relief to specific bulk dimensional, or performance standards set forth in the Master Program, and where there are extraordinary or unique circumstances relating to the property such that the strict implementation of the Master Program would impose unnecessary hardships on the applicant or thwart the SMA policies as stated in RCW 90.58.020.

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

1. Application: An application for a Shoreline variance shall be submitted on a form provided by the City accompanied by maps, completed environmental checklist, applicable fees, and any other information specified in this Master Program or requested by the Administrator. An applicant for a substantial development permit who wishes to request a variance shall submit the variance application and the substantial development permit application simultaneously.

2. Criteria for Granting Variances: Variance permits for development that will be located landward of the ordinary high water mark 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 Master Program 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 Master Program 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 uses planned for the area under the Comprehensive Plan and Master Program and 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.

3. Variance permits for development and/or uses that will be located waterward of the ordinary high water 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 Master Program precludes all reasonable use of the property.

b. That the proposal is consistent with the criteria established under subsection (2)(a) through (f) of this section.

c. That the public rights of navigation and use of the shorelines will not be adversely affected.

4. In the granting of all variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if variances were granted to other developments and/or uses in the area where similar circumstances exist, the total of the variances shall also remain consistent with the policies of RCW 90.58.020 and shall not cause substantial adverse effects to the shoreline environment.

5. Variances from the use regulations of the Master Program are prohibited.

B. Conditional Uses:

The purpose of a conditional use permit is to provide a system within the Master Program which allows flexibility in the application of use regulations in a manner consistent with the policies of RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by the City of Lake Forest Park or the Department of Ecology to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the Act

and the Master Program. Uses that are specifically prohibited by this Master Program may not be authorized with the approval of a conditional use permit.

1. Criteria for Granting Shoreline Conditional Use Permits. Uses which are classified or set forth as conditional uses in the Master Program may be authorized, provided the applicant demonstrate 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 Master Program;

    b. That the proposed use will not interfere with the normal public use of public shorelines;

    c. That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the Comprehensive Plan and this Master Program;

    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 conditional use permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if conditional use permits were granted for other developments in the area where similar circumstances exist, the 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 Master Program 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 Master Program.

4. Uses which are specifically prohibited by the Master Program may not be authorized.

3.9 Nonconforming Use and Development Standards

A. "Nonconforming use or development" means a shoreline use or development which was lawfully constructed or established prior to the effective date of the Act or this Master Program, or amendments thereto, but which does not conform to present regulations or standards of this Master Program. In such cases, the following standards shall apply:

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

2. A nonconforming structure which is destroyed by fire or other act of nature (or accident) may be rebuilt to the same or smaller configuration existing immediately prior to the time the structure was destroyed, provided the replacement structure does not warrant new shoreline armoring and that an application is made for the permits necessary to restore the development within six months of the date the damage occurred, all permits are obtained and the restoration is completed within two years of permit issuance, unless an extension for just cause is granted.

3. Uses and developments that were legally established and are nonconforming with regard to the use regulations of the Master Program may continue as legal nonconforming uses. Such uses shall not be enlarged or expanded, except that 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 upon approval of a conditional use permit.

4. A use which is listed as a conditional use, but which existed prior to adoption of the Master Program or any relevant amendment and for which a conditional use permit has not been obtained, shall be considered a nonconforming use. A use which is listed as a conditional use, but which existed prior to the applicability of the Master Program to the site and for which a conditional use permit has not been obtained, shall be considered a nonconforming use.

5. 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.

6. 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.

    c. 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.

i. A nonconforming structure which is moved any distance must be brought into conformance with the Master Program and the Act;

7. If a nonconforming use is discontinued for twelve (12) consecutive months or for twelve (12) months during any two (2)-year period, the nonconforming rights shall expire and any subsequent use shall be conforming; it shall not be necessary to show that the owner of the property intends to abandon such nonconforming use in order for the nonconforming rights to expire. A use authorized pursuant to subsection 5 of this section shall be considered a conforming use for purposes of this section;

8. An undeveloped lot, tract, parcel, site, or division of land located landward of the ordinary high water mark which was established prior to the effective date of the Act or the Master Program, but which does not conform to the present lot size standards, may be developed if permitted by other land use regulations of the local government and so long as such development conforms to all other requirements of the Master Program and the Act.

3.10 Enforcement and Penalties

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

A. Enforcement: All provisions of the Master Program shall be enforced by the Shoreline Administrator and/or his/her designated representatives. For such purposes, the Shoreline Administrator or his/her duly authorized representative shall have the power of a police officer.

B. Penalty: Any person found to have willfully engaged in activities on the City's shorelines in violation of the Shoreline Management Act of 1971 or in violation of the City's Master Program, rules or regulations adopted pursuant thereto, is guilty of a gross misdemeanor, and shall be subject to the penalty provisions of the Lake Forest Park Municipal Code (civil citation penalties and criminal penalties).

C. Violator's Liability: Any person subject to the regulatory program of the Master Program who violates any provision of the Master Program or permit issued pursuant thereto shall be liable for all damages to public or private property arising from such violation, including the cost of restoring the affected area to its condition prior to such violation. The Attorney General or Lake Forest Park attorney shall bring suit for damages under this section on behalf of the State or City governments. If liability has been established for the cost of restoring an area affected by a violation, the court shall make provision to assure that restoration will be accomplished within a reasonable time

at the expense of the violator. In addition to such relief, including money damages, the court in its discretion may award attorneys' fees and costs of the suit to the prevailing party.

3.11 Master Program Review

This Master Program 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 regulations. This review process shall be consistent with the requirements of WAC 173-26 or its successor and shall include a local citizen involvement effort and public hearing to obtain the views and comments of the public.

3.12 Amendments to the Master Program

Any of the provisions of this Master Program 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 LFPMC Chapter 16.26. Amendments or revisions to the Master Program, as provided by law, do not become effective until approved by the Department of Ecology.

3.13 Severability

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

3.14 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 most restrictive requirement shall be applied, except when constrained by federal or state law, or where specifically provided otherwise in this SMP.

CHAPTER 4: SHORELINE MANAGEMENT GOALS AND POLICIES

4.1 Introduction

This section contains goals and policies that form the foundation of the City of Lake Forest Park Shoreline Master Program and apply to all areas and all designated shoreline environments within the shoreline jurisdiction of the City of Lake Forest Park. The Shoreline Management Act requires cities to adopt goals, or "elements" to guide and support major shoreline management issues. The elements required by RCW 90.58.100(2), when appropriate are:

- Shoreline Use Element
- Economic Development Element
- Circulation Element
- Public Access Element
- Recreational Element
- Conservation Element
- Restoration Element
- Historic, Cultural, Scientific and Educational Element

4.2 Shoreline Use Element

Goal 4.2: Ensure that the land use patterns within shoreline areas are compatible with shoreline environment designations and will be sensitive to and not degrade habitat, ecological systems, and other shoreline resources.

Policy 4.2.1
New residential development should be designed to protect existing shoreline, water views, promote public safety, and avoid adverse impacts to shoreline habitats.

Policy 4.2.2
All activities, development and redevelopment within the City's shoreline jurisdiction should be designed to ensure public safety, enhance public access, and achieve no net loss of shoreline ecological functions.

4.3 Economic Development Element

Goal 4.3: The Shoreline Master Program for Lake Forest Park contains only limited provisions for economic development along the Lake Washington shoreline because the adopted Lake Forest Park Comprehensive Plan does not provide for any industrial development in this area, commercial uses are restricted in the shoreline

jurisdiction, and only very limited commercial uses that are accessory to a permitted recreational use or facility are allowed.

4.4 Circulation Element

Goal 4.4: Maintain safe, reasonable, and adequate vehicular, bicycle, and pedestrian circulation systems to shorelines and ensure that these routes will have the least possible adverse effect on unique or fragile shoreline features and existing ecological systems, while contributing to the functional and visual enhancement of the shoreline.

Policy 4.4.1
Provide and/or enhance physical and visual public access along shoreline public roads (i.e. street ends and viewpoints) where appropriate given topography, views and natural features.

Policy 4.4.2
Encourage the use of bicycles, shuttles and other alternative modes of transportation for general access to and from the waterfront. Improve and expand pedestrian connections to the shoreline.

4.5 Public Access Element

Goal 4.5: Increase and enhance public access to shoreline areas for the public to enjoy the amenities of the shoreline, consistent with the natural shoreline character, private rights, and public safety.

Policy 4.5.1
Preserve and enhance shoreline access through acquisition, enhancement of shoreline street ends, signage of public access points, and designation and design of specific shoreline access areas for wildlife viewing.

Policy 4.5.2
Encourage locally appropriate signage, lighting and landscaping for public access purposes where appropriate.

Policy 4.5.3
Access should be provided for a range of users including pedestrians, bicyclists, boaters and people with disabilities to the greatest extent feasible.

Policy 4.5.4
Development, uses and activities on or near the shoreline should not impair or detract from the public's visual or physical access to the water.

Policy 4.5.5
The City should implement the long-term plan for "Green Infrastructure" and other actions outlined in The Lake Forest Park Legacy, The Comprehensive Plan and in the 100-year Parks and Open Space Master Plan once the plan is finalized and adopted by the City.

4.6 Recreational Element

Goal 4.6: Encourage diverse, water-oriented recreational opportunities in those shoreline areas that can reasonably tolerate such uses - without destroying the integrity and character of the shoreline.

Policy 4.6.1
Coordinate with the City of Lake Forest Park Parks and Recreation Department to increase opportunities for diverse, water-oriented recreation.

Policy 4.6.2
The City should strive to seek a balance between passive and active recreational uses.

Policy 4.6.3
Prohibit recreational facilities and activities that adversely affect the integrity and character of the shoreline, or which threaten fragile shoreline ecosystems.

4.7 Conservation Element

Goal 4.7: Protect and preserve the unique and nonrenewable resources and amenities of the Lake Forest Park shoreline for the use and enjoyment of present and future generations.

Policy 4.7.1
Protect environmentally sensitive areas, including shoreline processes and ecological functions, through regulatory and non-regulatory means that may include acquisition of key properties, regulation of development within the shoreline jurisdiction, and incentives to encourage ecologically sound design.

Policy 4.7.2
Development should be located, designed, constructed, and operated so as not to degrade water quality as measured by state water quality standards.

Policy 4.7.3
Mitigate all foreseeable environmental impacts and achieve, at a minimum, no net loss of shoreline ecological functions.

4.8 Restoration Element

Goal 4.8: The City should strive to improve impaired shoreline ecological functions over time, when compared to the status upon adoption of the Master Program.

Policy 4.8.1
The City should implement the Restoration Plan attached as Appendix B.

Policy 4.8.2
Encourage projects that restore and enhance shoreline resources. Strategies may include but are not limited to a simplified permit process, reduced or waiver of permit fees, development incentives, public outreach, encouraging landowners to replant with native vegetation, and city participation in a pilot-project that promotes shoreline restoration.

Policy 4.8.3
Consider implementing tools to provide incentives for restoration such as: modifying the buffers that would apply to the restored areas or allowing a greater range of uses or flexible development standards (i.e. – setbacks, height limits, lot coverage) on properties providing restoration and/or affected by restoration buffers.

Policy 4.8.4
The City should monitor and analyze the cumulative impacts of development permitted in shoreline areas, including development exempt from a shoreline substantial development permit. Where impacts are occurring beyond that anticipated the City should revised the Master Program to address the cumulative impacts, and/or revised the conditions of approval of developments to address the new information.

4.9 Historical, Cultural, Scientific and Educational Element

Goal 4.9: Identify, protect, preserve, and restore important archaeological, historical, and cultural sites located in the shoreline jurisdiction of Lake Forest Park for their educational and scientific value, as well as for the recreational enjoyment of the general public.

Policy 4.9.1
Encourage educational projects and programs that foster a greater appreciation for the importance of shoreline management, environmental conservation, and restoration of ecological functions.

Policy 4.9.1
Ensure that new development is compatible with existing historic structures and cultural areas, and that it promotes the creation of our own legacy for the future of Lake Forest Park.

CHAPTER 5: SHORELINE ENVIRONMENT DESCRIPTION AND DESIGNATIONS

5.1 Introduction

The following section defines shoreline jurisdiction in the City of Lake Forest Park and defines and maps the environment designations of all the shorelines of the state in the City of Lake Forest Park. The intent of designating shoreline environments is to encourage development that will preserve the current condition or enhance the desired future character of the shoreline. To accomplish this, shoreline segments are given an environment designation based on existing use and development patterns, the biological and physical character of the shoreline, and the goals and aspirations of the local citizenry. Shoreline environment designations must be consistent with designation criteria provided in the Shoreline Management Act, implementing rules and policy direction for these same areas provided in the Lake Forest Park Comprehensive Plan.

Shoreline environment designations are categories that reflect the type of development that exists or should take place in a given area. 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.

The Lake Forest Park classification system is consistent with the environment designation system in WAC 173-26-211 and consists of three shoreline environments. In delineating environment designations, Lake Forest Park aims to assure that existing shoreline ecological functions are protected with the proposed use, intensity and standards of development.

The three (3) Lake Forest Park shoreline environment designations are:

1. Shoreline Residential
2. Urban Conservancy
3. Aquatic

These shoreline environments are illustrated for the City of Lake Forest Park in Figure 1, located at the end of this chapter, and described in the text below. Each shoreline description includes a definition and statement of purpose, followed by designation criteria, management policies, and development standards. Any undesignated shorelines are automatically assigned an Urban Conservancy environment designation.

5.2 Written Description of Shoreline Jurisdiction

Lake Washington: Beginning at a point where Lake Washington intersects N.E. 145th Street (the southern Lake Forest Park City limits) and extending northward along the Lake Washington shoreline to the point where the northern Lake Forest Park City limits intersect the City of Kenmore.

The jurisdiction of the Lake Forest Park Shoreline Master Program includes the water area of Lake Washington contained within the Lake Forest Park city limits and extends two hundred (200) feet landward from the Lake Washington shoreline ordinary high water mark as defined herein, and includes all associated wetlands and those associated wetlands which extend beyond 200 feet from the ordinary high water mark.

5.3 Shoreline Residential Environment

The Shoreline Residential environment is an area that presently supports moderate density single-family residential development, in areas where topography, transportation systems, and development patterns make it unlikely that more intensive uses would be appropriate. The Shoreline Residential environment is designed to provide for residential needs where the necessary facilities for development can be provided.

Purpose

The purpose of the Shoreline Residential environment designation is to accommodate residential uses, development and associated structures that are consistent with the Shoreline Management Act (SMA) and the protection and restoration of ecological functions. An additional purpose is to provide appropriate public access and recreational uses.

Designation Criteria

Areas designated as Shoreline Residential should meet one or both of the following criteria:

1. Areas presently developed or platted for residential uses, and

2. Areas designated in the Comprehensive Plan Future Land Use Map for single-family residential development.

Management Policies

General

Policy 5.3.1 Residential activities are preferred over other land and resource consumptive development or uses.

Policy 5.3.2 Limited non-residential uses, such as parks, community clubhouse, day cares, home occupation businesses, and churches may be allowed, provided they are consistent with the residential character.

Policy 5.3.3 Development should be permitted only in those shoreline areas that are environmentally capable of supporting the proposed use, and in a manner that protects and enhances the shoreline environment and its resources.

Policy 5.3.4 Residential and other developments should be located, sited, designed and maintained to protect, enhance and be compatible with the shoreline environment.

Policy 5.3.5 Visual and physical public access to shoreline resources are important to the community. Where possible, planning for the acquisition of land for permanent public access to the water should be encouraged and implemented.

Policy 5.3.6 Aesthetic considerations should be actively promoted by means such as appropriate development design, screening and architectural standards, view corridor preservation and maintenance of natural vegetative buffers.

Environmental Protection and Restoration

Policy 5.3.7 Development Regulations should require the preservation of shoreline ecological functions, taking into account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other comprehensive planning considerations.

Policy 5.3.8 Low impact development (LID) techniques, such as minimizing effective impervious surfaces, infiltration of run-off, use of green roofs and pervious pavers, and other techniques, shall be encouraged. The City shall encourage private property owners to use environmentally friendly landscaping practices and provide information and other assistance.

Development Regulations

A. New development should not be permitted to obstruct views from public vista points or views enjoyed by a substantial number of residences.

B. The following are prohibited in the Shoreline Residential environment:

1. Aquaculture.

2. Industrial uses.

3. Commercial uses as a primary use (commercial uses that are incidental to the primary residential use and are compatible with the residential character of the

neighborhood, such as home occupations, may be permitted).

Additional allowed, conditional and prohibited uses for the Shoreline Residential environment are listed in Chapter 7, Specific Shoreline Use Policies and Regulations, Table 1.

C. Height Limit: No new or expanded building or structure shall exceed a building height of thirty (30) feet, except the height limit shall not apply to television antennas, chimneys, flagpoles, public utilities, and similar appurtenances.

D. Setbacks

1. Unless otherwise specified herein, permanent structures shall be setback from ordinary high water mark as indicated in Chapter 7, Table 1 and the related Development Regulations for Residential Development. Setbacks are measured landward, on a horizontal plane perpendicular to the shoreline.

   a. Permanent and temporary structures shall be set back from the ordinary high water mark as indicated in Chapter 7, Table 1 and the related Development Regulations for Residential Development in Chapter 7. Setbacks are measured landward, on a horizontal plane, perpendicular to the shoreline.

   b. Development associated with public access and ecological restoration is not required to meet the minimum setback. However, where such development is approved within the minimum setback, the placement of structures, storage, and hard surfaces shall be limited to the minimum necessary for the feasible operation of the use.

E. Lot Width: The minimum required width of a lot in the Shoreline Residential environment shall be sixty (60) feet.

5.4 Urban Conservancy Environment

These areas include existing publicly owned open space and recreation properties, such as the Lyon Creek Waterfront Preserve and the Burke Gilman Trail, which are generally located near the shoreline and have potential for ecological restoration and/or public access to the shoreline.

Purpose

The purpose of the Urban Conservancy environment is to protect and restore ecological functions in urban and developed settings, while allowing a variety of water-oriented and low impact uses. This environment would apply to publicly owned areas in shoreline jurisdiction. Public lands may offer special conservation and/or restoration opportunities, such as the conservation and enhancement of shoreline vegetation.

Designation Criteria

The Urban Conservancy shoreline environment designation includes, but is not limited to, those areas that are designated as Recreation/Open Spaces on the Comprehensive Plan Future Land Use Map or are within existing and future public ownership but are not currently used as public right-of-way. Areas designated as Urban Conservancy should meet one or more of the following criteria.

1. They are suitable for a mix of water-related or water-enjoyment uses and other uses, such as parks and recreation facilities, that allow a substantial number of people to enjoy the shoreline;

2. They are natural areas that are part of the Burke Gilman Trail right-of-way or other areas that should not be more intensively developed for other uses, but may be used for trail improvement and expansion.

3. They are recently acquired publicly owned properties or passive open space areas like Lyon Creek Waterfront Preserve that should not be more intensively developed.

4. They retain important ecological functions, even though partially developed; or

5. They have potential for ecological restoration, development that is compatible with ecological restoration, or public access to the shoreline;

The Urban Conservancy designation is the shoreline area that encompasses the Lyon Creek Waterfront Preserve, Burke Gilman Trail right-of-way, and other publicly owned properties, and the Sheridan Beach Club and Civic Club within the Shoreline Management Area that are not currently used as public right-of-way.

Management Policies

General

Policy 5.4.1 In regulating uses in the Urban Conservancy shoreline environment, first priority should be given to public access and water-oriented uses that support ecological conservation and restoration.

Policy 5.4.2 Uses that are incompatible with conserving, protecting and restoring ecological conditions of the shoreline should be prohibited.

Policy 5.4.3 All uses and developments in the Urban Conservancy environment should enhance physical and visual public access to the shoreline.

Policy 5.4.4 The Burke Gilman Trail right-of-way should be used for active recreation use with emphasis on maintaining and potentially increasing visual public access to the shoreline.

Policy 5.4.5 The ecological functions of Lyon Creek Waterfront Preserve and other publicly owned lands should be preserved, enhanced, restored, and maintained.

Policy 5.4.6 Urban Conservancy areas should include, but are not limited to, interpretive trails, benches, and viewpoints, as appropriate.

Policy 5.4.7 The City shall encourage and assist privately owned recreational clubs who agree to provide general public access to the shoreline for special events, as appropriate and feasible.

Environmental Protection and Restoration

Policy 5.4.8 The City should set the example for redevelopment and restoration of public properties by requiring low impact development techniques to be utilized for City projects. The City should encourage low impact development for other public projects, i.e. – the Burke Gilman Trail enhancement.

Policy 5.4.9 New development and substantial redevelopment should protect and restore shoreline ecological functions with particular emphasis on protecting and enhancing salmon habitat.

Policy 5.4.10 During development or redevelopment activities, shoreline conservation and restoration shall be encouraged within the Urban Conservancy environment. The City should encourage restoration projects, such as conserving and enhancing shoreline forest and vegetation for publicly owned parcels that have potential for restoration, such as the Lyon Creek Waterfront Preserve.

Policy 5.4.11 Best management practices should be established or adopted for shoreline stabilization measures, vegetation conservation, water quality, and shoreline modifications within the Urban Conservancy designation to ensure that new development or redevelopment maintains and contributes to the restoration of shoreline ecological functions.

Policy 5.4.12 The City should encourage protection, conservation and restoration of the wildlife habitats located within the Burke Gilman Trail right-of-way.

Policy 5.4.13 The City may require the use of Low Impact Development Techniques in the Urban Conservancy environment where necessary to avoid or reduce the impact of new impervious surfaces. Examples of Low Impact Development include:

a. Graded swales in amended soils to stormwater retention and infiltration.
b. Permeable pavement for parking lots, driveways and alleyways.
c. Grass-grid parking lots.

d. Rooftop rainwater harvesting.
e. Collection and reuse of residential stormwater runoff.

Development Regulations

A. Land uses that are permitted in the Urban Conservancy shoreline environment include:
1. Water-oriented recreation
2. Scientific, historical, cultural and educational uses
3. Public access
4. Restoration activities

B. The following may be permitted as conditional uses in the Urban Conservancy environment:
1. Shoreline modifications
2. Transportation
3. Utilities (Primary and Accessory)
4. Ancillary Commercial Development

C. All new uses and developments, permitted or allowed as conditional, in the Urban Conservancy environment must be compatible with conserving, protecting and restoring ecological conditions of the shoreline.

D. The following are prohibited in the Urban Conservancy environment:
1. Agriculture
2. Aquaculture
3. Commercial uses (Primary)
4. Industrial uses
5. Non-water-oriented recreation
6. High-intensity recreation
7. Residential uses
8. Roads, utilities and parking areas that can be located outside of the shoreline area

E. New uses and developments must demonstrate consistency with the Urban Conservancy management policies.

F. Additional allowed, conditional and prohibited uses for the Urban Conservancy shoreline environment are listed in Chapter 7, Specific Shoreline Use Policies and Regulations, Table of Shoreline Uses and Regulations.

G. Height Limit: No new or expanded building or structure shall exceed a building height of thirty (30) feet, except for cupolas, water tanks, flagpoles, transmission lines and radio towers and other similar structures.

H. Setbacks

1. Permanent and temporary structures shall be set back from the ordinary high water mark as indicated in Chapter 7, Table of Shoreline Uses and Regulations and the related Development Regulations for Recreation in Chapter 7. Setbacks are measured landward, on a horizontal plane, perpendicular to the shoreline.

2. Developments associated with a water-dependent 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, storage, 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 without a shoreline variance.

Regulations and performance standards that apply to individual uses and developments are listed in Chapter 7 Table of Shoreline Uses and Regulations and Chapter 8 Table of Shoreline Modification Activities.

I. Lot Width**:** The minimum required width of a lot in the Urban Conservancy environment shall be sixty (60) feet.

5.5 Aquatic Environment

This area encompasses Lake Washington contained within the Lake Forest Park city limits, waterward of the ordinary high water mark.

Purpose

The purpose of the "Aquatic" environment is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high water mark.

Designation Criteria

An "Aquatic" environment designation will be assigned to shoreline areas waterward of the Lake Washington ordinary high water mark.

Management Policies

Policy 5.5.1 Allow new over-water structures only for water-dependent uses, public access, or ecological restoration.

Policy 5.5.2 The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.

Policy 5.5.3 In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple use of over-water facilities should be encouraged.

Policy 5.5.4 All developments and uses on navigable 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.

Policy 5.5.5 Uses that adversely impact the ecological functions of 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 WAC 173-26-201(2)(e) as necessary to assure no net loss of ecological functions.

Policy 5.5.6 Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.

Development Regulations

Regulations and performance standards that apply to individual uses and developments are listed in Chapter 7 Table of Shoreline Uses and Regulations and Chapter 8 Table of Shoreline Modification Activities.

5.6 Undesignated Shorelines

Any areas found to be undesignated shorelines in the future would be automatically assigned an Urban Conservancy environment designation per WAC 173-26-211(2)(e).

5.7 Shoreline Environment Designations Map

Figure 1: Lake Forest Park Shoreline Environments depicts the physical boundaries under the jurisdiction of this Master Program and graphically portrays the boundaries of the City's three (3) shoreline environment designations: Shoreline Residential, Urban Conservancy and Aquatic.

The Shoreline Administrator is responsible for keeping and maintaining Lake Forest Park's official copy of the Lake Forest Park Shoreline Environment map. This official copy shall be available for public inspection at all times during normal business hours. Unofficial copies shall be included as part of all distributed copies of this Shoreline Master Program.

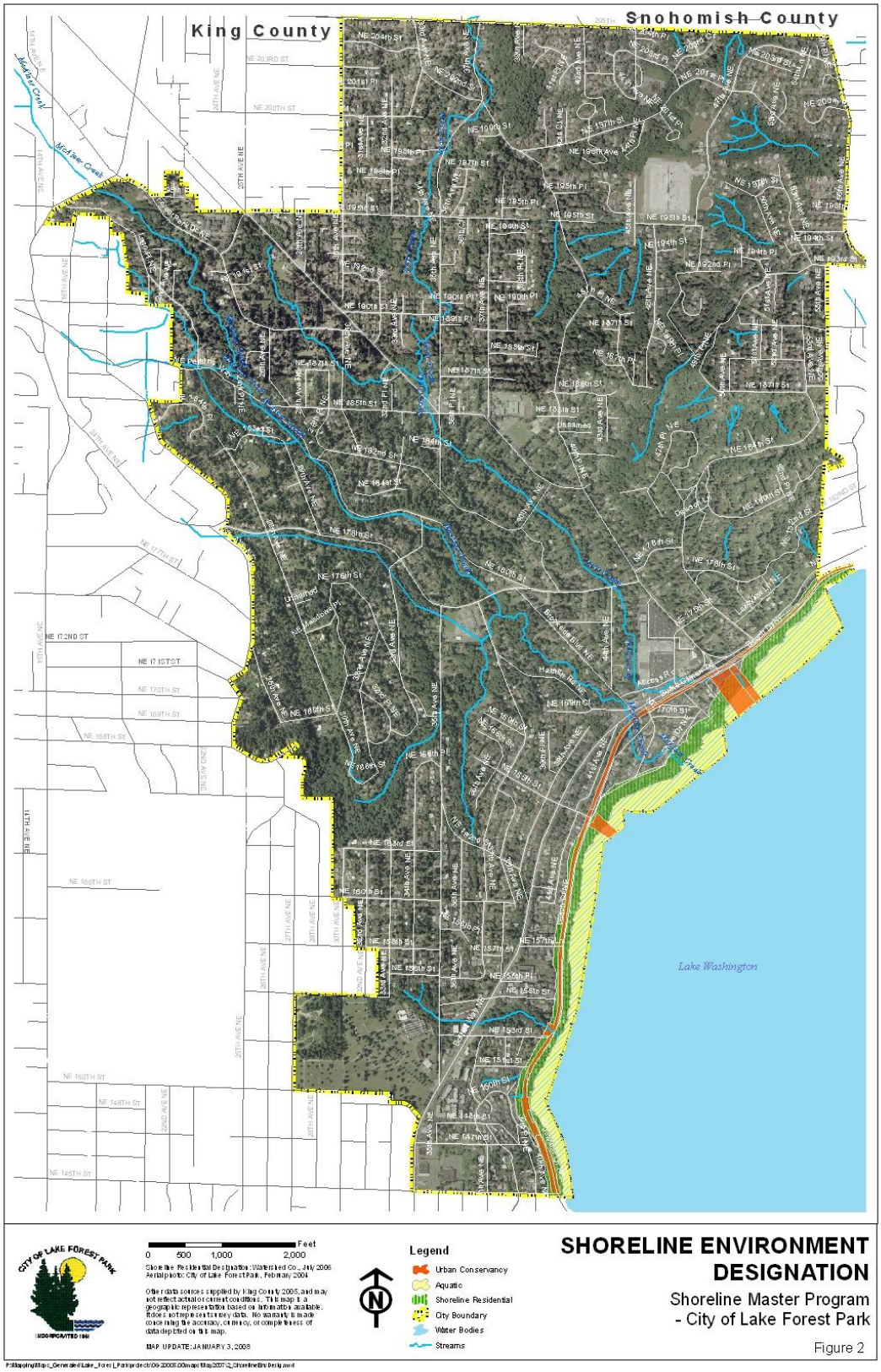

Figure 1: Map of Shoreline Environment Designations

CHAPTER 6: GENERAL REGULATIONS

6.1 Introduction

Based upon the goals established in this Master Program, the following general policies and regulations apply to all uses, developments, and activities in the shoreline area of Lake Forest Park.

This chapter is broken into different topic headings and is arranged alphabetically. Each topic begins with a description of its applicability, followed by general policy statements and general regulations. The intent of these provisions is to be inclusive, making them applicable to all environments, as well as particular shoreline uses and activities.

The regulations of this chapter are in addition to other adopted ordinances and rules. Where conflicts exist between regulations, those that provide more substantive protection to the shoreline area 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.

6.2 General Regulations

Environmentally sensitive areas within the shoreline management area jurisdiction are regulated by the City of Lake Forest Park Environmentally Sensitive Areas Regulations for the Shoreline Management Area, as contained in Appendix A. Although these regulations are nearly identical to the Environmentally Sensitive Areas Regulations codified in Chapter 16.16 and 16.18 of the Lake Forest Park Municipal Code (Ordinance No. 930), pursuant to the requirements of the Shoreline Management Act, these regulations are distinct. Please note that certain key sensitive area provisions, including the Reasonable Use Exception, do not apply in the shoreline jurisdiction. If there are conflicts between the regulations contained in the SMP, those that are the most protective of shoreline ecological functions will apply.

Minimum setbacks and height limits for specific shoreline developments, uses, and activities are described in Chapter 7, Specific Shoreline Use Policies and Regulations, Table of Shoreline Uses and Development Regulations.

Please see Chapter 3, Administration, for a full list of activities that are exempt from the requirement to obtain a shoreline substantial development permit.

A. All shoreline uses, and shoreline modification activities, including those that do not require a shoreline substantial development permit, must conform to the intent, policies, and regulations of this Master Program, including Shoreline Management Goals, Shoreline Environment Designation provisions (including the environment designation

map), General Regulations, Specific Shoreline Use Policies and Regulations, and Shoreline Modification Activity Regulations.

B. All shoreline development shall be designed in accordance with all applicable federal, state and local management codes and regulations, including those administered or required by the Army Corps of Engineers, the Federal Emergency Management Agency, the U.S. Department of Agriculture, the State Department of Fish and Wildlife, the State Department of Ecology, the State Department of Agriculture, the State Environmental Policy Act, the City's code pertaining to sensitive areas within the shoreline management jurisdiction (Appendix A), the City's zoning regulations, and other applicable local land use codes and regulations. Where there are conflicts between regulations, those which provide the most protection to shoreline ecological functions shall apply.

C. Shoreline modification activities must be in support of an allowable shoreline use which conforms to the provisions of this Master Program. Except as otherwise noted, all shoreline modification activities not associated with a legally existing or an approved shoreline use are prohibited.

D. Shoreline uses, modification activities, and conditions listed as "prohibited" shall not be eligible for consideration for a shoreline variance or shoreline conditional use permit.

E. Where provisions of this Master Program conflict, the more restrictive provisions shall apply unless specifically stated otherwise.

6.3 Archaeological and Historical Resources

Applicability

Archaeological and historic resources, because of their finite nature, are valuable links to the past and should be considered whenever a development is proposed along the state's shorelines. Where such resources are either recorded at the State Historic Preservation Office and/or with the City of Lake Forest Park, or have been inadvertently uncovered, the following policies and regulations apply.

Policies

Policy 6.3.1 Due to the limited and irreplaceable nature of the resource, public or private uses and activities should be prevented from destroying or damaging any site having historic, cultural, scientific or educational value as identified by the appropriate authorities.

Regulations

A. All shoreline permits shall contain provisions which require developers to immediately stop work and notify the City if any phenomena of possible archaeological interest is

uncovered during excavations. In such cases, the developer shall be required to provide for a site inspection and evaluation by a professional archaeologist to ensure that all possible valuable archaeological data is properly handled. The City shall subsequently notify the Muckleshoot Tribe and the State Office of Archaeology and Historic Preservation. Failure to comply with this requirement shall be considered a violation of the Shoreline Permit.

B. Significant archaeological and historic resources shall be permanently preserved for scientific study, education and public observation. When the City determines that a site has significant archeological, natural scientific or historical value, a Shoreline 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 City 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.

C. In the event that unforeseen factors constituting an emergency as defined in RCW 90.58.030 necessitate rapid action to retrieve or preserve artifacts or data identified above, the project may be exempted from the permit requirement of these regulations. The City shall notify the State Department of Ecology, the State Attorney General's Office and the State Historic Preservation Office of such a waiver in a timely manner.

D. Archaeological sites located both in and outside the shoreline jurisdiction are subject to RCW 2744 (Indian Graves and Records) and RCW 2753 (Archaeological Sites and Records) and shall comply with WAC 25-48 or its successor as well as the provisions of this master program.

E. 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.

F. Clear interpretation of historical and archaeological features and natural areas shall be provided when appropriate.

6.4 Environmental Impacts

Applicability

The Shoreline Management Act (Act) is concerned with the environmental impacts that both a use and activity may have on the fragile shorelines of the state. Problems of degrading the shoreline and its waters with contaminants such as petroleum products, chemicals, metals, nutrients, solid or human waste, or soil sediments from erosion are all issues that are addressed.

Policies

Policy 6.4.1 The adverse impacts of shoreline uses and activities on the shoreline environment should be avoided, if feasible, and then minimized during all phases of development (e.g., design, construction, management and use). Mitigation for impacts must be provided such that the use or activity overall will result in no net loss of shoreline ecological functions.

Policy 6.4.2 The City of Lake Forest Park should protect the ecological integrity of Lake Washington and the associated waterbodies, including McAleer and Lyon Creeks. Ecological integrity is a term that refers to a system's overall health and wholeness, including the presence of all appropriate elements (physical and biological) and the occurrence of all processes (e.g. erosion and deposition) at appropriate rates. Protecting the ecological integrity is the primary directive for water policy in the United States Clean Water Act.

Policy 6.4.3 The City of Lake Forest Park shall plan for the restoration of ecological functions where they have been impaired. Master Program provisions, including goals, policies, and regulations, are intended to achieve overall improvements in shoreline ecological functions over time, when compared to the status upon adoption of the Master Program. Restoration goals will be achieved by providing development incentives to private property owners, restoration information and assistance to all interested parties, through City projects and programs, and other means outlined in the Restoration Plan.

Policy 6.4.4 The City should consider the adoption of Low Impact Development (LID) standards, such as those contained in the *Low Impact Development Manual: Technical Guidance for Puget Sound*, to further reduce environmental impacts within the Shoreline Environment.

Regulations

A. Solid waste, liquid waste, and untreated effluent shall not be allowed to enter any bodies of water or to be discharged onto the land.

B. 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 leakproof condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.

C. All shoreline uses and activities shall utilize best management practices (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. 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 to continue to function as intended.

D. All shoreline developments and uses shall utilize effective erosion control methods during both construction and operation.

E. All shoreline uses and activities shall be located, designed, constructed and managed to avoid, if feasible, and then minimize adverse impacts to water quality and fish and wildlife resources, including spawning, nesting, rearing, feeding and habitat areas, and migratory routes.

F. All shoreline uses and activity shall be located, designed, constructed and managed in a manner that avoids, if feasible, and then minimizes adverse impacts to surrounding land and water uses and that is aesthetically compatible with the affected area.

G. All shoreline developments shall be located, constructed and operated so as not to be a hazard to public health and safety.

H. Land clearing, grading, filling and alteration of natural drainage features and land forms shall be limited to the minimum necessary for development. Surface drainage systems or substantial earth modifications involving greater than 500 cubic yards of material shall be designed by a professional engineer. These designs shall seek to prevent maintenance problems, avoid adverse impacts to adjacent properties or shoreline features, and result in no net loss of shoreline ecological functions.

I. All shoreline uses and activities shall be located and designed to prevent or minimize the need for shoreline protection structures (bulkheading, riprap, etc.) and stabilization, landfills, groins, jetties, or substantial site regrades.

J. Navigation channels shall be kept free of hazardous or obstructing uses and activities.

K. Identified significant short term, long term, or cumulative adverse environmental impacts lacking appropriate mitigation shall be sufficient reason for permit denial.

L. If specific standards, such as setbacks, pier dimensions and tree planting requirements, are provided in this Master Program, then the City shall not require additional mitigation sequencing analysis under these provisions. In the following circumstances, the applicant shall provide an analysis of measures taken to mitigate environmental impacts:

1. Where specific regulations for a proposed use or activity are not provided in this Master Program;

2. Where either a conditional use or variance application are proposed; and

3. Where the standards contained in this Master Program require an analysis of the feasibility of or need for an action or require analysis to determine whether the design has been minimized in size.

4. Maintenance activities shall be conducted in a manner that minimizes impacts to fish, wildlife, and their associated habitat and utilizes best management practices, unless specific standards in this Master Program are already provided for maintenance activities and thereby do not require additional mitigation sequencing analysis.

6.5 Environmentally Sensitive Areas

Applicability

Environmentally sensitive areas constitute the most environmentally fragile lands which support resources that are economically and culturally important to the state under the Shoreline Management Act. For example, they can be natural resources that provide fisheries habitat or areas that may threaten the health and safety of the public, such as floodways or unstable slopes. "Environmentally sensitive areas" include erosion hazard areas, landslide hazard areas, seismic hazard areas, steep-slope hazard areas, streams, wetlands, wellhead protection areas, wildlife habitat conservation areas, flood hazard areas and related buffers, as set forth in the City's Environmentally Sensitive Areas Regulations in Shoreline Jurisdiction (Appendix A).

Policies

Policy 6.5.1 Environmentally sensitive areas within the shoreline management area jurisdiction are regulated by the City of Lake Forest Park Environmentally Sensitive Areas Regulations for the Shoreline Management Area, as contained in Appendix A. Although these regulations are nearly identical to the Environmentally Sensitive Areas Regulations codified in Chapter 16.16 of the Lake Forest Park Municipal Code (Ordinance No. 930), pursuant to the requirements of the Shoreline Management Act, these regulations are distinct. The following sections have been removed from the regulations contained in Appendix A:

a. Sensitive areas tract designations.

b. Performance standards for subdivisions.

c. Exemptions from regulations under this chapter.

d. Authorized exemptions to work in sensitive areas.

e. Setback exception.

f. Reasonable use exceptions.

g. Public agency and utility exception.

If there are conflicts between the regulations contained in the SMP, those that are the most protective of shoreline ecological functions will apply.

Policy 6.5.2 Unique, rare and fragile natural and man-made features as well as scenic vistas from public property and wildlife habitats should be preserved and protected from unnecessary degradation or interference.

Policy 6.5.3 The City of Lake Forest Park should protect the ecological integrity of its shoreline areas within its jurisdiction.

Regulations

A. All shoreline uses and activities shall be located, designed, constructed and managed to protect and/or not adversely affect those natural features which are valuable, fragile or unique in the region, and to facilitate the appropriate intensity of human use of such features, including but not limited to:

1. Wetlands;

2. Fish and wildlife habitats, including streams, migratory routes, and spawning areas;

3. Natural or man-made scenic vistas or features;

4. Floodways; and

5. Geologically hazardous areas, including erosion, landslide, steep slope and seismic hazard areas.

B. All uses, developments, and activities on sites within the shoreline jurisdiction must comply with all applicable federal, state and local management codes and regulations, including those administered or required by the Army Corps of Engineers, the Federal Emergency Management Agency, the U.S. Department of Agriculture, the State Department of Fisheries and Wildlife, the State Department of Ecology, the State Department of Agriculture, the State Environmental Policy Act, the City's code pertaining to sensitive areas (Environmentally Sensitive Areas Ordinance, No. 930), the City's zoning regulations, and other applicable local land use codes and regulations.

6.6 Public Access

Applicability

Shoreline public access is 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 are a variety of types of potential public access, including picnic areas, pathways and trails, promenades, bridges, street ends, ingress and egress, parking and others.

Currently, developed physical public access to the Lake Forest Park shoreline is limited to Lyon Creek Waterfront Preserve and important visual access is provided by the Burke-Gilman Trail. The Lake Forest Park Civic Club and the Sheridan Beach Club also provide access to the shoreline for members and residents in specific neighborhoods. The City is committed to improving visual and physical public access to the Lake Washington shoreline over the long term.

Policies

Policy 6.6.1 Public access to Lake Forest Park's shoreline does not include the right to enter upon or cross private residential property, except where specifically provided by easements.

Policy 6.6.2 Preservation and enhancement of the public's visual access to Lake Washington should be encouraged. Enhancement of views should not be construed to mean excess removal of vegetation that partially impairs views.

Policy 6.6.3 Where appropriate, public access should be provided as close as possible to the water's edge without adversely affecting a sensitive shoreline environment and should be designed for universal accessibility.

Policy 6.6.4 The level of public access should be commensurate with the degree of uniqueness or fragility of the shoreline. For example, public access should generally be limited and stronger access controls should be incorporated in highly fragile shoreline environments.

Policy 6.6.5 Publicly owned shorelines should be limited to water-dependent or public recreation uses; otherwise, such shorelines should remain protected open space.

Policy 6.6.6 Public access afforded by shoreline street ends should be preserved, maintained and enhanced.

Policy 6.6.7 Public access should be designed to provide for public safety and to minimize potential impacts to private property and individual privacy.

Policy 6.6.8 There should be a physical separation or other means of clearly delineating public and private space in order to avoid unnecessary user conflict.

Policy 6.6.9 Public access facilities should be constructed of environmentally friendly materials and support healthy natural processes, whenever financially feasible and possible.

Policy 6.6.10 The City will pursue additional public access to the Lake Washington shoreline through ongoing efforts, such as the Legacy Project. The recent public acquisition of the Lyon Creek Waterfront Preserve property from a willing private party and conversion of this property into a passive park and shoreline restoration site is seen as a model for providing additional public access to the shoreline in the future.

Policy 6.6.11 The Burke-Gilman Trail is an important component of the City's public access infrastructure and strategy. The Trail corridor should provide a non-motorized connection between enhanced shoreline visual and physical access points and surrounding neighborhoods. Remnant natural areas and features along this corridor should be enhanced and restored.

Policy 6.6.12 City residents benefit from public access opportunities provided by quasi-public clubs. The City should work with the Lake Forest Park Civic Club and the Sheridan Beach Club to investigate if additional special event access can be provided to the general public.

Regulations

A. Public access shall be required for all shoreline development and uses that meet the criteria below, except for the development of an individual single-family residence not part of a development planned for more than four parcels.

B. Except as provided in Section C below, substantial shoreline developments or conditional uses shall provide public access where any of the following conditions are present:

1. Where a development or use will create a significant increase in demand for public access to the shoreline, the development or use shall provide public access to mitigate this impact.

2. Where a development or use will interfere with an existing public access way, the development or use shall provide public access to mitigate this impact. "Interference" with public access by a development may occur if development activities block public access or discourage use of existing on-site or nearby access.

3. Where land is subdivided into five or more parcels.

4. The shoreline permit request shall describe the impact, the required public access conditions, and how the conditions address the impact.

C. A shoreline development or use (other than an individual single-family residence not part of a development planned for more than four parcels) that does not provide public access may only be authorized provided it is demonstrated by the applicant and determined by the City that one or more of the following provisions apply:

1. Unavoidable health or safety hazards to the public exist which cannot be prevented by any practical means;

2. Inherent security requirements of the proposed development or use cannot be satisfied through the application of alternative design features or other solutions;

3. Unacceptable environmental harm such as damage to fish spawning areas will result from the public access which cannot be mitigated; or

4. Significant undue and unavoidable conflict between the proposed access and adjacent uses would occur and cannot be mitigated.

5. Provided further, that the applicant has first demonstrated and the City of Lake Forest Park has determined that all reasonable alternatives have been exhausted, including but not limited to:

   a. Regulating access by such means as limiting hours of use to daylight hours.

   b. Designing separation of uses and activities, with such means as fences, terracing, hedges, and landscaping.

   c. Providing access that is physically separated from the proposal, such as a nearby street end, an offsite viewpoint, or a trail system.

6. Whenever a requirement of C 1-6 cannot be met, the City shall, as a condition of granting a permit, require the applicant to make an in-lieu of payment in accordance with RCW 82.02.020.

D. 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.

E. Required public access easements shall be of a size and design appropriate to the site, size, and general nature of the proposed development.

F. The standard state-approved logo and other approved signs that indicate the public's right of access and hours of access shall be constructed, installed, and maintained by the applicant in conspicuous locations at public access sites.

G. Public access sites shall be connected directly to the nearest public street or trail.

H. Public access sites shall be made barrier-free for the physically disabled where feasible.

I. Public access easements and permit conditions shall be recorded on the deed where applicable or on the face of a plat or short plat as a condition running in perpetuity with the land. Said recording with the Auditor's office shall occur at the time of permit approval (RCW 58.17.110; relating to project approval or disapproval).

J. Future actions by the applicant or other parties shall not diminish the usefulness or value of the public access site.

K. Physical public access shall be designed to prevent significant impacts to sensitive natural systems.

L. Whenever financially feasible and practical, the City shall require the use of environmentally friendly materials and technology in such things as building materials, paved surfaces, porous pavement, etc., when developing public access to the shoreline.

6.7 Vegetation Management

Applicability

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

Policies

Policy 6.7.1 Native plant communities within the shoreline environment should be protected and maintained to minimize damage to the ecology and environment of the shoreline area.

Policy 6.7.2 The removal of non-hazardous mature trees should be discouraged. The City shall regulate tree removal and land clearing to protect the shoreline environment.

Policy 6.7.3 The City shall provide development incentives to encourage property owners to maintain an appropriate shoreline buffer of native vegetation.

Policy 6.7.4 Restoration of degraded shorelines due to natural or manmade causes should, wherever feasible, use soil bioengineering techniques to minimize the processes of erosion, sedimentation, and flooding.

Policy 6.7.5 Aquatic weed management should involve usage of native plant materials wherever possible in soil bioengineering applications and habitat restoration activities. Where active removal or destruction of aquatic vegetation is necessary, it should be done only to the extent necessary to allow water-dependent activities to continue. Removal or modification of aquatic vegetation should be conducted in a manner that minimizes adverse impacts to native plant communities and/or salmonid habitat, and should include appropriate handling or disposal of weed materials and attached sediments.

Policy 6.7.6 The City of Lake Forest Park should provide information to the public about environmentally appropriate vegetation management, salmon-friendly landscaping for shoreline properties, and alternatives to the use of pesticides and herbicides which impact water quality and aquatic stream habitat.

Policy 6.7.7 Property owners should use the following Best Management Practices (BMPs) when maintaining residential landscapes:

a. Avoid use of herbicides, fertilizers, insecticides, and fungicides along banks of streams, drainage channels, and shores of Lake Washington, as well as in the water.

b. Limit the amount of lawn and garden watering so that there is no 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.

Regulations

A. General

1. All unique and fragile shorelines shall be protected from degradation caused by the modifications of the land surface within the shoreline area and/or the adjacent uplands.

2. Restoration of any shoreline or streambank 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 that which most recently occurred on-site may be used.

3. Stabilization of exposed erosion-prone surfaces within the shoreline environment shall, wherever feasible, utilize soil bioengineering techniques.

B. Aquatic Vegetation Removal

1. Aquatic vegetation control shall only occur when native plant communities and associated habitats are threatened or where an existing water dependent use is restricted

by the presence of weeds. Aquatic vegetation control shall occur in compliance with all other applicable laws and standards, including Washington Department of Fish and Wildlife requirements.

2. The control of aquatic vegetation by hand pulling or placement of aquascreens, if proposed to maintain existing water depth for navigation, shall be considered normal maintenance and repair and therefore exempt from the requirement to obtain a shoreline substantial development permit. Control of aquatic vegetation by mechanical methods is exempt from the requirement to obtain a shoreline 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.

3. The control of aquatic vegetation by derooting, rotovating or other methods which disturb the bottom sediment or benthos shall be considered development for which a shoreline substantial development permit is required.

4. The application of herbicides or pesticides in lakes, rivers, streams, wetlands, or ditches requires a permit from the Washington Department of 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.

C. Tree Management and Vegetation in Shoreline Setback

1. Tree Retention. The following provisions shall apply to significant trees located within the shoreline setback, in addition to the provisions contained in Chapters 16.14 and 16.16. Provisions contained in Chapter 16.14 that are not addressed in this section continue to apply.

   To maintain the ecological functions that trees provide to the shoreline environment, significant trees shall be retained or, if removed, the loss of shoreline ecological functions shall be mitigated for, subject to the following standards:

   a. No Development Activity.

      For tree removal in the shoreline setback when no development activity is proposed or in progress, the following tree replacement standards and requirements shall apply:

      1) Healthy, diseased or nuisance trees that are removed or fallen trees in the shoreline setback shall be replaced as follows:

Removed Tree Type	**Replacement Requirement**
1 conifer tree less than 24 inches in diameter as measured at breast height	For removal of conifer tree up to 12 inches in diameter, replace with 1 native conifer tree at least 6 ft. in height measured from existing grade.

	For removal of a conifer tree greater than 12 inches in diameter but less than 24 inches in diameter, same replacement requirements as for conifer tree 12 inches in diameter or less, but also a riparian vegetation area at least 80 square feet at the time of planting. Riparian area shall contain at least 60% shrubs and be a minimum of 3 ft. wide in all dimensions at the time of planting.
1 deciduous tree less than 24 inches in diameter as measured at breast height	For removal of a deciduous tree up to 12 inches in diameter replace with 1 deciduous tree at least 2 inches in caliper measured 6 inches above existing grade or 1 native conifer tree at least 6 feet in height measured from existing grade. For removal of a deciduous tree greater than 12 inches in diameter but less than 24 inches in diameter, same replacement requirements as for deciduous tree 12 inches in diameter or less, but also a riparian vegetation area of at least 80 square feet at the time of planting. Riparian area shall contain at least 60% shrubs and be a minimum of 3 feet wide in all dimensions at the time of planting.
1 conifer or deciduous tree 24 inches in diameter or greater as measured at breast height	Only trees meeting the criteria found in Chapter 16.14 for a nuisance or hazard tree may be removed. A report, prepared by a qualified tree professional, must be submitted showing how the tree meets the criteria. The Shoreline Administrator shall make the final determination if the tree meets the criteria and may be removed. If the City approves removal of the tree, tree replacement shall be: For removal of 1 conifer tree, replace with 2 native confer trees at least 6 ft. in height at the time of planting. For removal of 1 deciduous tree, replace with 2 trees of either type. Native conifer tree shall be at least 6 ft. in height and deciduous tree shall be at least 2 inches in caliper measured 6 inches above existing grade at the time of planting.
A significant tree that has fallen as a result of natural causes, such as a fire, flood, earthquake or storm	Replace with 1 tree. Native conifer tree shall be at least 6 ft. in height and deciduous tree shall be at least 2 inches in caliper measured 6 inches above existing grade at the time of planting.

2) A tree removal request shall be submitted in writing to the City prior to any tree removal within the shoreline setback. The request shall include the location, number, type and size of tree(s) being removed and the proposed replacement tree(s) and riparian vegetation planting plan meeting the standards required in 6.7.C.1.a above. The City shall inspect the tree replacement once installation is complete.

3) An alternative replacement option shall be approved if an applicant can demonstrate that:

   a) It is not feasible to plant all of the required mitigation trees in the shoreline setback of the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted, or

   b) The required tree replacement will obstruct existing views to the lake, at the time of planting or upon future growth that cannot otherwise be mitigated through tree placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether the tree replacement will obstruct existing views to the lake.

   The alternate replacement option must be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. This may include, but shall not be limited to, a riparian restoration plan consisting of at least 60% shrubs and some groundcovers that shall equal at a minimum 80 square feet for each tree to be replanted. The applicant shall submit a planting plan to be reviewed by the Shoreline Administrator, who may approve, approve with conditions, or deny the request.

   If the alternative plan is consistent with the standards provided in this subsection, the Shoreline Administrator shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

4) In circumstances where the proposed tree removal includes a tree that was required to be planted as a replacement tree under the provisions of this subsection or as part of the required vegetation in the shoreline setback established in 6.7.C.3 below, the required tree replacement shall be addressed under the provision below that requires only a 1:1 replacement.

5) For required replacement trees, a planting plan showing the location, size and species of the new trees is required to be submitted and approved to by the Shoreline Administrator. All replacement trees in the shoreline setback must be native or shoreline appropriate species approved by the Shoreline Administrator.

b. Development Activity.

For tree removal in the shoreline setback when development activity is proposed or

in progress.

1) Submittal Requirements in the Shoreline Setback.

   a) A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of existing structures, driveways, access ways and easements and the proposed improvements.

   b) An arborist report stating the size (DBH), species, and assessment of health of all significant trees located within the shoreline setback. This requirement may be waived by the Shoreline Administrator if it is determined that proposed development activity will not potentially impact significant trees within the shoreline setback.

2) Tree Retention Standards in the Shoreline Setback. Within the shoreline setback, existing significant trees shall be retained, provided that the trees are determined to be healthy and windfirm by a qualified tree professional, and provided the trees can be safely retained consistent with the proposed development activity. The Shoreline Administrator is authorized to require site plan alterations to retain significant trees in the shoreline setback. Such alterations include minor adjustments to the location of building footprints, adjustments to the location of driveways and access ways, or adjustment to the location of walkways, easements or utilities. The applicant shall be encouraged to retain viable trees in other areas on-site.

3) Replanting Requirements in the Shoreline Setback.

   a) If the Shoreline Administrator approves removal of a significant tree in the shoreline setback area, then the tree replacement requirements of 6.7.C.1.a above shall be met. See alternative mitigation option in 6.7.C.1.b.3).c) below that may be proposed.

   b) For required replacement trees, a planting plan showing location, size and species of the new trees is required. All replacement trees in the shoreline setback must be native or shoreline appropriate species approved by the Shoreline Administrator.

   c) An alternative mitigation option may be approved if an applicant can demonstrates that:

      i. It is not feasible to plant all of the required mitigation trees on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted, or

      ii. The required tree replacement will obstruct existing views to the lake, at the time of planting or upon future growth that cannot otherwise be mitigated through tree placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether the tree replacement will obstruct existing views to the lake.

   The alternate mitigation must be equal or superior to the provisions of this

subsection in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. This may include, but shall not be limited to, a riparian restoration plan consisting of at least 60% shrubs, perennials and groundcovers that shall equal at minimum 80 square feet for each tree to be replanted. The applicants shall submit a planting plan to be reviewed by the Shoreline Administrator, who may approve, approve with conditions, or deny the request.

If the alternative plan is consistent with the standards provided in this subsection, the Shoreline Administrator shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

2. Tree Pruning. Non-destructive thinning of lateral branches to enhance views or trimming, shaping, thinning or pruning of a tree necessary to its health and growth is allowed, consistent with the following standards:

   a. In no circumstance shall removal of more than one-fourth (1/4) of the original crown be permitted;

   b. Pruning shall not include topping, stripping of branches or creation of an imbalanced canopy;

   c. Pruning shall retain branches that overhang the water to the maximum extent feasible.

3. Required Vegetation in Shoreline Setback. Riparian vegetation contributes to shoreline ecological functions in a number of different ways, including maintaining temperature, removing excessive nutrients and toxic compounds, attenuating wave energy, removing and stabilizing sediment and providing woody debris and other organic matter. In order to minimize potential impacts to shoreline ecological functions from development activities, the following shoreline vegetation standards are required:

   a. Minimum Vegetation Standard Compliance.

      1) Location.

         a) Water-dependent Uses or Activities. The applicant shall plant native vegetation, as necessary, in at least 75 percent of the nearshore riparian area located along or near the water's edge, except for the following areas, where the vegetation standards shall not apply: those portions of water-dependent development that require improvements adjacent to the water's edge, such as boat ramps for boat launches, swimming beaches or other similar activities shall plant native vegetation on portions of the nearshore riparian area located along the water's edge that are not otherwise being used for the water-dependent activity.

         b) All Other Uses. The applicant shall plant native vegetation, as necessary, in at least 75 percent of the nearshore riparian area located along or near the water's edge.

c) In the instance where there is an intervening property between the shoreline and an upland property and the portion of the intervening property abutting the upland property has an average parcel depth of less than 25 feet, shoreline vegetation along the waterward property line area of the upland property shall be provided within the shoreline setback pursuant to this section, unless:

i. The required shoreline vegetation already exists on the intervening lot;

ii. The intervening property owner agrees to installing the shoreline vegetation on their property; or

iii. A proposal for alternative compliance is approved under the provisions established in 6.7.C.3.f.

2) Planting Requirements.

a) The vegetated portion of the nearshore riparian area shall average 15 feet in depth from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 15-foot wide area.

b) Installation of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least 3 trees per 100 linear feet of shoreline must be included in the plan, with portions of a tree rounded up to the next required tree. At least 60% of the landscape bed shall consist of shrubs.

c) Plant materials must be native and selected from a local list of native plants, or other native or shoreline appropriate species approved by the Shoreline Administrator.

b. Use of Existing Vegetation. The City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this subsection, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation. The City may require the applicant to plant trees, shrubs, and groundcover according to the requirements of this subsection to supplement the existing vegetation in order to provide a buffer at least as effective as the required vegetated area.

c. Landscape Plan Required. The applicant shall submit a landscape plan that depicts the quantity, location, species, and size of plant materials proposed to comply with the requirements of this subsection. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.

d. Vegetation Placement. When required either by this subsection or as a mitigation measure, such as for a new pier or dock or structural shoreline stabilization measure, vegetation selection and placement shall comply with the following standards:

1) Vegetation shall be selected and positioned on the property so as not to obscure the public view within designated view corridors from the public right-of-way to the lake at the time of planting or upon future growth.

2) Vegetation may be selected and positioned to maintain private views to the water by clustering vegetation in a selected area, provided that the minimum landscape standard is met, unless alternative compliance is approved.

e. Alternative Compliance. Vegetation required by this subsection shall be installed unless the applicant demonstrates one of the following:

1) The vegetation will not provide shoreline ecological function due to existing conditions, such as the presence of extensive shoreline stabilization measures that extend landward from the OHWM; or

2) It is not feasible to plant all of the required vegetation on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, or minimum spacing requirements for the vegetation to be planted; or

3) The vegetation will substantially interfere with the use and enjoyment of the portion of the property located between the primary structure and OHWM, such as the existing structure is located in very close proximity to the OHWM; the area in between the primary structure and the OHWM is encumbered by a sanitary sewer, public pedestrian access easement, public access walkway or other constraining factors; or

4) The required vegetation placement will obstruct existing views to the lake, at the time of planting or upon future growth, which cannot otherwise be mitigated through placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether the vegetation placement will obstruct existing views to the lake.

The alternate measures must be equal or superior to the provisions of this subsection in accomplishing the purpose and intent of maintaining and improving shoreline ecological functions and processes.

Requests to use alternative measures shall be reviewed by the Shoreline Administrator who may approve, approve with conditions, or deny the request. Cost of producing and implementing the alternative plan, and the fee to review the plan by City staff or the City's consultant shall be borne by the applicant.

If the alternative plan is consistent with the standards provided in this subsection, the Shoreline Administrator shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

4. Other Standards.

a. For other general requirements, see Chapter 16.14, Tree Protection and Replacement.

b. The applicant is encouraged to make significant trees removed under these provisions available for City restoration projects, as needed.

5. Responsibility for Regular Maintenance.

a. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of vegetation required under this section. Plants that die must be replaced in kind with similar plants, or other native or shoreline appropriate species approved by the Shoreline Administrator.

b. All required vegetation must be maintained throughout the life of the development. Prior to issuance of a certificate of occupancy or final inspection, the proponent shall provide a final as-built landscape plan and a recorded agreement, in a form approved by the City, to maintain and replace all vegetation that is required by the City.

6.8 Water Quality

Applicability

Water quality is affected in numerous ways by human occupation and development of shoreline areas. Typically the increase in impermeable surfaces as a result of development increases stormwater runoff volumes, causing higher peak stormwater discharges at higher velocities that cause scouring and erosion of stream banks. 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. The degradation of water quality adversely impacts wildlife habitat and public health.

Maintaining high water quality standards and restoring degraded systems has been mandated in RCW 90.58. Water quality is impacted by a variety of uses and modifications and clearly needs broad policies and regulations to protect the shorelines and the associated waters of the state.

Policies

Policy 6.8.1 All shoreline uses and activities should be located, designed, constructed and maintained to minimize adverse impacts to water quality and fish and wildlife resources including spawning, nesting, rearing, and feeding areas and migratory routes.

Policy 6.8.2 The City should require reasonable setbacks, buffers and stormwater treatment and detention facilities to achieve the objective of no net loss of shoreline ecological functions and maintenance of good water quality.

Policy 6.8.3 The City shall provide development incentives to private property owners to improve the water quality functions of shoreline buffers.

Policy 6.8.4 All measures for controlling erosion, reducing stream flow rates, or controlling floodwaters through the use of stream control works should be located, designed, constructed and maintained so existing water quality is protected or enhanced.

Policy 6.8.5 All measures for the treatment of runoff to maintain and/or enhance water quality should be conducted on-site at the source of contamination.

Policy 6.8.6 Dredging and filling activities should be conducted in a manner that protects the City's water quality. For detailed information on requirements and policies related to dredging, see the Shoreline Modification Activity Regulations section entitled Dredging.

Policy 6.8.7 Lake Forest Park should provide general information to the public about the use of land and human activities which impact water quality. This could be accomplished by encouraging educational curricula that provides students with first hand exposure to the issues and solutions, and through community activities, such as Adopt-A-Stream programs.

Policy 6.8.8 The following BMPs regarding water quality management should be supported:

a. Hazardous materials should always be disposed of properly if they cannot be reused or recycled. Household products identified by such labels as poisonous, corrosive, caustic, flammable, volatile, explosive, or dangerous, and their associated containers, should never be dumped outdoors at a residence.

b. Ground cloths or drip pans should be used beneath any outdoor work involving hazardous materials such as paints, wood preservatives, finishes, stains, and rust removers. Collected drips and spills should be recycled or disposed of properly.

c. The runoff from automobile washing should drain to vegetated areas, such as lawns. If soaps or detergents are used, products without phosphates should be selected. Use a high pressure hose with trigger to minimize water usage.

d. Limit the amount of lawn and garden watering so that surface water runoff containing pesticides, herbicides and fertilizers does not leave the property. Application of these chemicals should be avoided if precipitation is expected.

e. Boat maintenance and repair activities that can be moved on-shore should be moved accordingly. This action reduces some of the potential for direct pollution on Lake Washington.

f. Boat blasting and spray-painting activities should be sheltered by hanging windblock tarps to prevent dust and overspray from escaping. The Puget Sound Air Pollution Control Agency imposes limitations on this type of work, and therefore should be contacted.

g. Bilge and ballast water that has an oily sheen on the surface should be collected for proper disposal rather than dumped on land or over water. Several companies are available for bilge pumpout services. The problem can possibly be avoided if oil-absorbent pads are used to capture the oil in the bilge water before pumping. If pads are used, they must be recycled or properly disposed.

h. Paint and solvent mixing, fuel mixing, and similar handling of liquids should be performed on shore, or such that no spillage can occur directly in surface water bodies.

i. Feeding Canada geese and other waterfowl along the shoreline should be discouraged to prevent them from gathering in large numbers and potentially contaminating the water from bird droppings.

Regulations

A. All shoreline development, both during and after construction, shall minimize impacts related to surface runoff through control, treatment and release of surface water runoff such that there is no net loss of receiving water quality in the shoreline environment. Control measures include but are not limited to dikes, runoff intercepting ditches, catch basins, settling wet ponds, sedimentation ponds, oil/water separators, filtration systems, grassy swales, planted buffers, and fugitive dust controls.

C. Shoreline development and uses shall adhere to all required setbacks, buffers and standards for stormwater storage basins.

D. All shoreline development shall comply with the applicable requirements of the most recent edition of the King County Surface Water Design Manual and all applicable City stormwater regulations. The City may also rely on source control standards and other BMPs contained in the most recent version of the *Department of Ecology Stormwater Management Manual for Western Washington* and *The Low Impact Development Manual: Technical Guidance for Puget Sound*.

CHAPTER 7: SPECIFIC SHORELINE USE POLICIES AND REGULATIONS

7.1 Introduction

As required by the Shoreline Management Act, this Master Program 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, which provide basic criteria for evaluating shoreline permit applications, are used to implement the broader goals, policies and intent of the Shoreline Management Act and this Program.

Table 7.1 Shoreline Uses and Development Regulations

SHORELINE REGULATIONS	URBAN CONSERVANCY	SHORELINE RESIDENTIAL	AQUATIC
Height Limit[1]	30 ft.	30 ft	NA
Shoreline Setback[2]	50 ft (standard) may be reduced to 30 ft. (minimum) with enhancement	40 ft (standard) to 20 ft. (minimum) for lots < 100 ft. in depth 50 ft. (standard) to 20 ft. (minimum) for lots > or = to 100 ft. in depth.	NA
SHORELINE USE			
Agriculture	Prohibited	Prohibited	Prohibited
Aquaculture	Prohibited	Prohibited	Prohibited
Boating Facilities	Prohibited	Prohibited	Prohibited
Commercial Development As a Primary Use As an Accessory Use	 Prohibited CUP Required	 Prohibited Prohibited	 Prohibited Prohibited
Industrial Development	Prohibited	Prohibited	Prohibited

[1] The maximum height limit applies to all structures.

[2] The maximum setback applies unless the applicant implements voluntary enhancements as described in the Residential Development Subsection a(1)(b) below. The setback may be reduced by the Shoreline Administrator up to the minimum setback based on the criteria therein.

SHORELINE REGULATIONS	URBAN CONSERVANCY	SHORELINE RESIDENTIAL	AQUATIC
Forest Practices	Prohibited	Prohibited	Prohibited
Mining	Prohibited	Prohibited	Prohibited
Parking			
As a Primary Use	Prohibited	Prohibited	Prohibited
As an Accessory Use	Permitted	Permitted	Prohibited
Recreational Facilities			
Water-dependent	Permitted	Permitted	Permitted
Water-related	Permitted	Permitted	Permitted
Non-Water-oriented			
As a Primary Use	Prohibited	Prohibited	Prohibited
As an Accessory Use	CUP Required	CUP Required	Prohibited
Multi-use Trails	CUP Required	CUP Required	Prohibited
Minor Trails	CUP Required	Permitted	Prohibited
Residential Development			
Single Family	Prohibited	Permitted	Prohibited
Multifamily	Prohibited	Prohibited	Prohibited
Scientific, Historical, Cultural, or Educational Uses	Permitted	Permitted	Permitted
Signage	Permitted	Permitted	Permitted
Transportation			
New – Related to Permitted Shoreline Activities	CUP Required	CUP Required	CUP Required
Expansion of Existing	CUP Required	CUP Required	CUP Required
Multi-use Trails	CUP Required	CUP Required	NA
Utilities (Primary)			
Solid Waste Disposal or Transfer Sites (excluding storage of recyclable materials)	Prohibited	Prohibited	Prohibited
Other	CUP Required	CUP Required	CUP Required
Utilities (Accessory)			
Local Public Water, Electric, Natural Gas Distribution, Public Sewer Collection, Cable and Telephone Service, and Appurtenances	Permitted	Permitted	Permitted

7.2 Agriculture

Applicability

Agriculture refers to livestock, crop, vegetation and soil management. These activities are not applicable to the City of Lake Forest Park. There are no known agricultural activities of significance within shoreline jurisdiction. If such activities are established in the future, regulations will be established by amendment to this program.

Regulations

A. Agriculture is a prohibited use activity within shoreline jurisdiction.

7.3 Aquaculture

Applicability

Aquaculture is the farming or culturing of food fish or other aquatic plants and animals in lakes, streams and other natural or artificial water bodies. These activities are not applicable to Lake Forest Park. There are no known aquaculture activities existing or anticipated within shoreline jurisdiction. If such operations are established in the future, regulations will be established by amendment to this program.

Regulations

A. Aquaculture is a prohibited use activity within shoreline jurisdiction.

7.4 Boating Facilities

Applicability

Boating facilities are structures for permanent boat moorage serving more than four single-family residences. These facilities are not applicable to Lake Forest Park. There are no known boating facilities existing or anticipated within shoreline jurisdiction. If such operations are established in the future, regulations will be established by amendment to this program.

Regulations

A. Boating Facilities are a prohibited use activity within shoreline jurisdiction.

7.5 Commercial Development

Applicability

Commercial development means those uses that are involved in wholesale, retail, service and business trade. Economic development, in the form of commercial activities as a primary use, is not supported by the Shoreline Management Goals established for this Master Program. The adopted Lake Forest Park Comprehensive Plan does not provide for any commercial uses along the shoreline in the future. If such operations are established in the future, regulations will be established by amendment to this program. However, there are some limited existing commercial uses that are accessory to existing recreational uses. For example, some of the recreational clubs allow for rentals and leasing of the building facilities for special events, such as private parties or receptions and banquets. In order to accommodate these activities, this

Master Program will allow for limited accessory uses to be permitted within shoreline jurisdiction provided that establishment of a new accessory commercial use or expansion of such a use will require a conditional use permit.

Regulations

A. Commercial development as a primary use is a prohibited use activity within shoreline jurisdiction. Commercial development as an accessory use is prohibited within the Shoreline Residential and Aquatic environments.

B. Commercial development in the Urban Conservancy environment as an accessory use to a permitted recreational use or facility is allowed within shoreline jurisdiction. However, commercial uses accessory to a permitted recreational use or facility that is not water-dependent shall not be allowed over water. Examples of limited accessory commercial uses to permitted recreational uses and/or facilities are as follows:
   1. Concession stands, and
   2. Private parties or receptions and banquets.

C. Bed and breakfast establishments are not a permitted use within shoreline jurisdiction.

D. Outside commercial vendors may not establish business facilities in shoreline jurisdiction. This prohibition does not preclude a vendor from being hired to provide services in connection with a permitted use.

7.6 Forest Practices

Applicability

Forest practices are those activities not covered by the Forest Practices Act involving conversion to non-forest use. Due to the lack of timber harvest potential within the City's shoreline jurisdiction, these activities are not applicable to Lake Forest Park. There are no known forest practices existing or anticipated within shoreline jurisdiction. If such operations are established in the future, regulations will be established by amendment to this program.

Regulations

A. Forest Practices are a prohibited use activity within shoreline jurisdiction.

7.7 Industrial Development

Applicability

Industrial developments are facilities for processing, manufacturing and storage of finished or semifinished goods and food stuffs. Economic development, in the form of industrial activities, is not supported by the Shoreline Management Goals established for this Master Program. There are no industrial activities existing or planned within shoreline jurisdiction. The adopted Lake Forest Park Comprehensive Plan does not provide for any industrial uses along the shoreline in the future. If such operations are established in the future, regulations will be established by amendment to this program.

Regulations

A. Industrial development is a prohibited use activity within shoreline jurisdiction.

7.8 Mining

Applicability

Mining is the removal of naturally occurring materials from the earth for beneficial uses. There are no mining activities existing or anticipated within shoreline jurisdiction. If such uses are established in the future, regulations will be established by amendment to this program.

Regulations

A. Mining is a prohibited use activity within shoreline jurisdiction.

7.9 Parking

Applicability

Parking is the temporary storage of automobiles or other 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.

Policies

Policy 7.9.1 Parking in shoreline areas should be minimized.

Policy 7.9.2 Parking facilities in shoreline areas should be located and designed to minimize adverse impacts including those related to stormwater runoff, water quality, visual qualities, public access, and vegetation and habitat maintenance.

Policy 7.9.3 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.

Regulations

A. Parking in shoreline areas must directly serve a permitted shoreline use.

B. Parking facilities shall provide adequate provisions to control surface water runoff to prevent it from contaminating water bodies.

C. 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.

D. 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 with vegetation in such a manner that plantings provide effective screening within three years of project completion.

E. New and reconstructed parking areas within the Urban Conservancy Shoreline Environment shall utilize Low Impact Development (LID) techniques as appropriate and as described in the most recent edition of the *Low Impact Development Manual: Technical Guidance for Puget Sound*.

7.10 Recreation

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 quasi-public noncommercial shoreline recreational facilities (excluding private residences) in Lake Forest Park.

Policies

Policy 7.10.1 Recreational uses in shoreline jurisdiction should be limited to water-dependent and water-related uses. Non-water-related recreational facilities as a primary facility should be located outside of the shoreline area. Non-water-related recreational facilities as an accessory facility are considered a conditional use within the Shoreline Residential and Urban Conservancy environments, and are prohibited in the Aquatic environment.

Policy 7.10.2 The coordination of local, state and federal recreation planning should be encouraged. Shoreline recreational developments should be consistent with the City's adopted park, recreation and open space plans.

Policy 7.10.3 Recreational developments should be designed to preserve, enhance or create scenic views and vistas.

Policy 7.10.4 The use of shoreline street ends and publicly owned lands for public access and development of recreational opportunities should be encouraged. The City should identify existing encroachments on City property and work with private property owners to resolve such encroachments.

Policy 7.10.5 The City encourages land acquisitions for open space that preserve environmentally sensitive areas, provide wildlife habitat, and offer opportunities for education and interpretation within shoreline jurisdiction.

Policy 7.10.6 Shoreline areas with a potential for providing recreation or public access opportunities should be identified for this use and acquired by lease or purchase, or through partnerships with nonprofit and service organizations, and incorporated into the public park and open space system.

Policy 7.10.7 Lake Forest Park supports linking existing and future shoreline parks, recreation areas and public access points with a nonmotorized trail system.

Policy 7.10.8 Recreational activities should be designed to avoid conflict with private property rights, and to minimize and mitigate objectionable impacts on adjoining property. For example, visual public access should be encouraged through efforts such as the City's Lake Forest Park Legacy to create a series of connected opportunities for public access that does not impinge on private property rights (specifically, but not limited to, visual public access through the Burke Gilman Trail to the shoreline between existing houses).

Policy 7.10.9 Public access should not contribute to the net loss of ecological functions of Lake Forest Park's environmentally sensitive areas, such as wetlands and wildlife habitats.

Regulations

A. All structures associated with a recreational use, other than accessory or water-dependent structures, such as docks and boardwalks, that provide access to the water for that use, shall maintain a standard setback of fifty (50) feet from the OHWM. This setback may be reduced down to 30 feet pursuant to the regulations for Residential Development in A(1)(b). However, existing structures may be replaced in their current location and configuration to the extent allowed by state and federal agencies with jurisdiction. Any further setback reduction shall require approval of a shoreline variance application.

B. 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.

C. Water-dependent or water-related activities such as swimming, boating, and fishing, and activities that benefit from lakefront scenery such as picnicking, hiking and bicycling shall be emphasized in planning public and private (excluding residential) noncommercial recreation sites in the shoreline corridor. Recreational activities that are not water-dependent or water-related are:

1. Prohibited in the shoreline area if a primary use;

2. A use requiring a Shoreline Conditional Use permit within the Shoreline Residential and Urban Conservancy environments if an accessory use; and

3. Prohibited in the Aquatic environment if an accessory use.

D. All recreational developments shall make adequate provisions for:

1. Motorized, nonmotorized and pedestrian access;

2. The prevention of trespass onto adjacent properties, including but not limited to landscaping and fencing;

3. Protection and restoration of environmentally sensitive areas and shoreline processes and functions;

4. Signs indicating the publics' right of access to shoreline areas, installed and maintained in conspicuous locations at the point of access and the entrance; and

5. Buffering of such development from adjacent private property or natural area.

E. In approving shoreline recreational developments, the City shall ensure that the development will maintain, enhance or restore desirable shoreline features.

F. Swimming areas shall be separated from boat launch areas.

G. The development of underwater sites for sport diving shall not:

1. Take place at depths of greater than eighty (80) feet;

2. Constitute a navigational hazard;

3. Be located in areas where the normal waterborne traffic would constitute a hazard to those people who may use such a site.

H. 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.

I. Public boat launching facilities may be developed, provided the traffic generated by such a facility can be safely and conveniently handled by the streets serving the proposed facility.

J. Fragile and unique shoreline areas with valuable ecological functions, such as wetlands and wildlife habitats, shall be used only for non-intensive recreation activities that do not involve the construction of structures.

K. 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.

L. Proposals for new or expanded recreational development shall include provisions for public access to the shoreline.

M. A new or expanded shoreline recreational development or use that does not provide public access may be authorized provided it is demonstrated by the applicant and determined by the City that one or more of the following provisions apply.

1. Unavoidable health or safety hazards to the public exist which cannot be prevented by any practical means;

2. Inherent security requirements of the proposed development or use cannot be satisfied through the application of alternative design features or other solutions;

3. The cost of providing the access, easement, or an alternative amenity is unreasonably disproportionate to the total long-term cost of the proposed development.

4. Unacceptable environmental harm such as damage to fish spawning areas will result from the public access which cannot be mitigated; or

5. Significant undue and unavoidable conflict between the proposed access and adjacent uses would occur and cannot be mitigated.

6. Provided further, that the applicant has first demonstrated and the City of Lake Forest Park has determined that all reasonable alternatives have been exhausted, including but not limited to:

a. Regulating access by such means as limiting hours of use to daylight hours.

b. Designing separation of uses and activities, with such means as fences, terracing, hedges, and landscaping.

c. Providing access that is physically separated from the proposal, such as a nearby street end, an offsite viewpoint, or a trail system.

7. Whenever a requirement of M 1-6 cannot be met, the City shall, as a condition of granting a permit, require the applicant to make an in-lieu of payment in accordance with RCW 82.02.020.

N. 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, the natural vegetation shall not be excessively removed either by clearing or by topping.

O. Public access sites shall be connected directly to the nearest public street or other public access.

P. Public access sites shall be made barrier free for the physically disabled where feasible.

Q. 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.

R. Physical public access shall be designed to prevent significant impacts to sensitive natural systems and shall prevent the net loss of ecological functions.

S. 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. Porous pavements shall be used unless the applicant demonstrates to the satisfaction of the Shoreline Administrator that such materials would restrict accessibility, pose a safety hazard or are not sufficient durable.

7.11 Residential Development

Applicability

Residential development means one or more buildings, structures, lots, parcels, or portions thereof which are designed for and used or intended to be used to provide a place of abode for human beings, including single family residences and other detached 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, fences and saunas.

Single-family residential development is prohibited in the Aquatic and Urban Conservancy environments. Multifamily residential development is prohibited in shoreline jurisdiction.

Permit Exemptions

A substantial development permit is not required for construction within the Shoreline Residential environment by an owner, lessee or contract purchaser of a single-family residence for his own use or the use of his family. However, such construction and all normal appurtenant structures must otherwise conform to this Master Program. An "appurtenance" means a structure that is necessarily connected to the use and enjoyment of a single family residence and includes a garage, deck, driveway, utilities, fences and grading which does not exceed two hundred fifty (250) cubic yards (see WAC 173-27-040 (1g)).

Policies

Policy 7.11.1 Residential development should be permitted only where there are adequate provisions for utilities, circulation and access.

Policy 7.11.2 Recognizing the single purpose, irreversible and space consumptive nature of shoreline residential development, 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.

Policy 7.11.3 The City shall provide development incentives, including reduced shoreline setbacks, to encourage the protection, enhancement and restoration of high functioning buffers and natural or semi-natural shorelines.

Policy 7.11.4 Residential development should be designed to preserve shoreline aesthetic characteristics, views, and minimize physical impacts to shoreline ecological functions.

Policy 7.11.5 Residential development should be designed so as to preserve existing shoreline vegetation, control erosion and protect water quality using best management practices and where possible, utilizing low impact development technologies.

Policy 7.11.6 The City encourages 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.

Policy 7.11.7 The City shall encourage the use of alternative paving products, such as pervious pavers, as a mechanism for reducing impervious surfaces and surface water runoff.

Policy 7.11.8 Development shall, at a minimum, achieve a no net loss of ecological functions necessary to sustain shoreline natural resources, even for exempt development.

Regulations

A. Single-family development is permitted in the Shoreline Residential environment, subject to the general regulations of this Shoreline Master Program, provided single-family development is permitted in the underlying zone classification.

B. Multifamily residential development is prohibited.

C. Structures or other development accessory to residential uses are permitted in shoreline jurisdiction, subject to the provisions of the City's zoning code.

D. View and vistas are currently regulated by residential height restrictions and setbacks, as established by the City's zoning code as well as by existing covenants.

E. Residential 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.

Bulk Regulations for Development

F. In addition to the underlying requirements for residential development, the following standards shall apply:

1. Single Family Residence Setbacks

a. A fifty (50)-foot standard setback shall be established from the ordinary high water mark of Lake Washington for all lots with a minimum depth greater than or equal to one hundred (100) feet. A forty (40)-foot standard setback shall be established from the ordinary high water mark of Lake Washington for all lots with a minimum depth less than one hundred (100) feet.

2. Impervious Surface Area

a. Total impervious surface area within the shoreline setback area is limited to not more than 200 square feet and shall intrude no more than 10 feet into the shoreline setback. Pathways providing access to the shoreline are allowed but shall utilize pervious materials. Impervious surface areas include roofs of accessory structures, decks, patios, solid walkways and driveways.

b. Surfaces within the shoreline setback area shall be encouraged to utilize pervious materials, where feasible. These include patios, walkways and driveways.

3. The Shoreline setback may be reduced down to a minimum of twenty-five (25) feet where the buildable depth (the minimum distance between the ordinary high water mark and any front-yard setback, easement, right of way, or other such constraint, located at the opposite (landward) end of the parcel) is greater than 100 feet. The shoreline setback may be reduced down to a minimum of twenty (20) feet in all other circumstances. Setback reductions are only allowed when impacts are mitigated using a combination of the mitigation options provided in the table below to achieve an equal or greater protection of lake ecological functions.

   a. At least one Water Related Action must be undertaken in order to achieve the full setback reduction allowed.

      i) For lots less than one hundred (100) feet in depth, a maximum of 10 feet in cumulative setback reduction may be achieved under Upland Related Actions; or

      ii) for lots greater than or equal to one hundred (100) feet in depth, a maximum of 15 feet in cumulative setback reduction may be achieved under Upland Related Actions.

   b. All property owners who obtain approval for a reduction in the setback must record the final approved setback and corresponding conditions in a Notice on Title, and provide a copy of the Notice on Title to the Shoreline Administrator.

   c. All property owners who obtain approval for a reduction in the setback must prepare, and agree to adhere to, a shoreline vegetation management plan prepared by a qualified professional and approved by the Shoreline Administrator that includes appropriate limitations on the use of fertilizer, herbicides and pesticides as needed to protect lake water quality. This plan shall be added to a Notice on Title, and a copy of the Notice on Title provided to the Shoreline Administrator;

   d. Restoration of native vegetation as discussed below shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. Preparation of a revegetation plan shall be completed by a qualified professional and include a monitoring and maintenance program that shall, at a minimum, include the following:

      i) The goals and objectives for the mitigation plan;

      ii) The criteria for assessing the mitigation;

iii) A monitoring plan that includes annual progress reports submitted to the Shoreline Administrator and that lasts for a period sufficient to establish that performance standards have been met as determined by the Shoreline Administrator, but no less than five years; and

iv) A contingency plan.

e. Whenever the Shoreline Administrator determines that monitoring has established a significant adverse deviation from predicted impacts, or that mitigation or maintenance measures have failed, the applicant or the property owner shall be required to institute correction action, which shall also be subject to further monitoring as provided in this section.

f. The Shoreline Administrator may require a performance bond(s) 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 years. The Shoreline Administrator shall establish the conditions of the bond or other security according to the nature of the proposed mitigation, maintenance or monitoring and the likelihood and expense of correcting mitigation or maintenance failures.

g. All costs associated with the mitigation/monitoring and planning therefore, including city expenses, shall be the responsibility of the applicant.

h. Shoreline vegetation shall be required to meet standards listed in Chapter 6.7.C.3.

Table 7.2 Shoreline Setback Reduction Alternatives

Reduction Mechanism		Reduction Allowance for Lots < 100 feet in depth	Reduction Allowance for Lots ≥ 100 feet in depth
Water Related Actions			
1	Removal of an existing bulkhead covering at least 75 percent of the lake frontage which is located at, below, or within 5 feet landward of the lake's ordinary high water mark (OHWM) and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, and beach/substrate composition;	15 feet	20 feet
2	Removal of an existing bulkhead covering at least 25	10 feet	15 feet

Reduction Mechanism		Reduction Allowance for Lots < 100 feet in depth	Reduction Allowance for Lots ≥ 100 feet in depth
	percent of the lake frontage which is located at, below, or within 5 feet landward of the lake's OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, beach/substrate composition, and vegetation;		
3	Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish;	10 feet	10 feet
4	Restoration of native vegetation, as necessary in at least 75 percent of the remaining Lake Washington setback area. Up to 25 percent of the lake frontage may be used for improved shoreline access, provided in no case shall access be restricted to less than 15 feet of frontage and access areas are located to avoid areas of greater sensitivity and habitat value. (Note: this incentive cannot be used by any properties that currently have native vegetation in 75% of the remaining setback area. The reduction would only be granted if ecological functions would be improved relative to the existing condition.)	10 feet	15 feet
Upland Related Actions			
5	Installation of biofiltration/infiltration mechanisms such as bioswales, created and/or enhanced wetlands, or ponds that exceed standard stormwater requirements.	10 feet	10 feet
6	Installation of a "green" roof in accordance with the standards of the LEED Green Building Rating System.	10 feet	10 feet
7	Installation of pervious material for driveway or road construction.	5 feet	5 feet
8	Limiting total impervious surface in the reduced setback area to less than 5 percent.	5 feet	5 feet
9	Of the total lot area outside of the reduced setback (not including area of primary residence), preserve or restore at least 20 percent as native vegetation and no more than 20 percent as lawn.	5 feet	5 feet

i. Any further setback reduction beyond that allotted in this Section shall require approval of a shoreline variance application.

4. Nonconformances

Increases in structure footprint outside of the shoreline setback shall be allowed,

even if all or a portion of the previously approved footprint is within the shoreline setback.

G. Accessory structures greater than one hundred fifty (150) square feet that are not water-dependent or water-related are prohibited within the residential setback from the OHWM. Accessory structures shall not exceed a maximum height of twelve (12) feet.

7.12 Signs

Applicability

A sign is defined as a device of any material or medium, including structural component parts, which is used or intended to be used to attract attention to the subject matter for advertising, identification or informative purposes. The following provisions apply to any commercial or advertising sign directing attention to a business, professional service, community, site, facility, or entertainment, conducted or sold either on or off premises.

Policies

Policy 7.12.1 Signs should be designed and placed so that they are compatible with the aesthetic quality of the existing shoreline and adjacent land and water uses.

Policy 7.12.2 Signs should not block or otherwise interfere with visual access to the water or shorelines.

Policy 7.12.3 Outdoor advertising and billboards are not an appropriate use of the shoreline area within shoreline jurisdiction.

Regulations

A. Signs shall comply with the City's sign regulations.

B. Sign plans and designs shall be submitted for review and approval at the time of shoreline permit approval.

C. All signs shall be located and designed to minimize interference with vistas, viewpoints and visual access to the shoreline.

D. Overwater signs or signs on floats or pilings shall be related to water-dependent uses only.

E. Temporary or obsolete signs shall be removed within ten (10) days of elections or termination of any other functions. Examples of temporary signs include: real estate signs, directions to events, political advertisements, event or holiday signs, construction signs.

F. Signs that do not meet the policies and regulations of this program shall be removed or required to conform within two years of the adoption of this master program.

Allowable Signs

G. The following types of signs may be allowed in all shoreline environments:

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

2. Public information signs directly relating to a shoreline use or activity.

3. Off-premise, freestanding signs for community identification, information, or directional purposes.

4. National, site and institutional flags or temporary decorations customary for special holidays and similar events of a public nature.

Prohibited Signs

H. The following signs are prohibited:

1. Off-premises detached outdoor advertising signs.

2. Spinners, streamers, pennants, flashing lights, and other animated signs used for commercial purposes.

3. Signs placed on trees or other natural features.

4. Commercial signs for products, services, or facilities located off-site.

7.13 Transportation Facilities

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, bikeways, trails, heliports, and other related facilities. In Lake Forest Park, these uses account for a minimal percentage of the shoreline land inventory. However, the impact of these facilities on shorelines can be substantial.

Policies

Policy 7.13.1 New road and bridge construction in shoreline jurisdiction should be minimized, and allowed only when related to and necessary for the support of permitted shoreline activities.

Policy 7.13.2 Expansion of existing roadways should be allowed by conditional use if such facilities are found to be in the public interest.

Policy 7.13.3 Joint use of transportation corridors within shoreline jurisdiction for roads, utilities and motorized and nonmotorized forms of transportation should be encouraged.

Policy 7.13.4 In determining the use of the City's share of any future mitigation monies from large public infrastructure projects (e.g. major transportation facility construction, expansion or replacement) consideration shall be given towards the use of a significant portion of such monies for shoreline restoration and public access projects and priorities identified in the City's SMP and Restoration Plan.

Regulations

A. New road and bridge construction in shoreline jurisdiction shall be minimized and allowed only when related to and necessary for the support of permitted shoreline activities.

B. Transportation 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.

C. Expansion of existing roadways shall be allowed only when the proponent obtains a conditional use permit and demonstrates that:

1. No alternative route is feasible; and

2. The roadway is constructed and maintained to cause the least possible adverse impact on the land and water environment.

3. The roadway is found to be in the public interest.

D. 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.

E. Developers of roads must be able to demonstrate that efforts have been made to coordinate with existing land use plans including the Shoreline Master Program and the City's Comprehensive Plan.

F. 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.

G. Road designs must provide safe pedestrian and nonmotorized vehicular crossings where public access to shorelines and the Burke-Gilman Trail is intended.

H. Any road expansion affecting streams and waterways shall be designed to allow fish passage and minimum impact to habitat.

I. 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.

J. The City shall give preference to mechanical means for roadside brush control on roads in shoreline jurisdiction rather than the use of herbicides.

K. Float plane and heliport facilities and services shall conform to all applicable City codes and Federal Aviation Administration standards and requirements for fuel, oil spills, safety and firefighting equipment, noise, and vehicle and pedestrian and swimmer separation. No new heliport facilities shall be allowed.

7.14 Utilities (Primary)

Applicability

Utilities are services and facilities that produce, transmit, store, process or dispose of electric power, gas, water, sewage, and communications. The provisions of this section apply to primary use and activities such as solid waste handling and disposal, power generating or transfer facilities, gas distribution lines and storage facilities, and high-tension utility lines.

Policies

Policy 7.14.1 Primary utilities should utilize existing transportation and utility sites, rights-of-way and corridors whenever possible, rather than creating new corridors. Joint use of rights-of-way and corridors should be encouraged.

Policy 7.14.2 Primary utilities should avoid locating in environmentally sensitive areas unless no feasible alternatives exist.

Policy 7.14.3 New primary utility facilities should be located so that extensive shoreline protection is not required, and water flow and motorized and nonmotorized circulation or navigation are not restricted.

Policy 7.14.4 Wherever primary utility facilities and corridors must be placed in a shoreline area, they should be located so as to protect scenic views. Whenever possible,

such facilities should be placed underground or designed to minimize impacts on the aesthetic qualities of the shoreline area.

Policy 7.14.5 Utility facilities and rights-of-way should be designed to preserve the natural landscape and to minimize conflicts with present and planned land uses.

Policy 7.14.6 Solid waste disposal activities and facilities should be prohibited in shoreline areas. "Solid waste facilities" are not to be construed as storage of recyclable materials, which is addressed in the Lake Forest Park Municipal Code.

Policy 7.14.7 The City should participate in watershed management planning programs and implement measures to maintain, enhance and restore Lake Forest Park's shoreline areas, including measures to control and reduce nonpoint pollution and sedimentation.

Policy 7.14.8 The City should continue to work collaboratively with King County to reduce stormwater inflow and infiltration and other factors the contribute to sewer overflows into Lake Washington.

Policy 5.14.9 In determining the use of the City's share of any future mitigation monies from significant utility projects (e.g. major facility construction, expansion or replacement), consideration shall be given towards the use of a significant portion of such monies for shoreline restoration and public access projects and priorities identified in the City's SMP and Restoration Plan.

Regulations

A. Primary utilities shall be located landward of the ordinary high water mark unless such location is not feasible or would result in potentially greater environmental impacts.

B. Primary utility facilities shall avoid disturbance of unique and fragile areas, as well as wildlife spawning, nesting and rearing 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.

C. Utility development shall, through coordination with local government agencies, provide for compatible, multiple use 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.

D. 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.

E. Solid waste disposal sites and facilities are prohibited in the shoreline environment. "Solid waste facilities" are not to be construed as storage of recyclable materials, which is addressed in the Lake Forest Park Municipal Code.

F. 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.

G. Primary utility development shall provide screening of facilities from water bodies and adjacent properties in a manner that is compatible with the surrounding environment. Type of screening required shall be determined by the City on a case-by-case basis.

H. 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.

I. The City shall hold public meetings prior to the issuance of an SDP for a major primary utility project in accordance with the administrative procedures outlined in this Master Program to allow for the greatest amount of public input to help guide utility-related decisions.

7.15 Utilities (Accessory)

Applicability

Utilities have been split into accessory and primary with accessory meaning utilities that affect small-scale distribution services connected directly to the uses along the shoreline. For example, power, telephone, cable, water and sewer lines, including stormwater systems, 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 impacting the quality of the shoreline and its waters.

Policies

Policy 7.15.1 Utilities are necessary to serve shoreline uses and should be properly installed to protect the shoreline and water from contamination and degradation.

Policy 7.15.2 Utility facilities and right-of-ways should be located outside of the shoreline area to the maximum extent possible. When utility lines require a shoreline location, they should be placed underground.

Policy 7.15.3 Utility facilities should be designed and located in a manner which preserves the natural landscape and shoreline ecology, and minimize conflicts with present and planned land uses.

Regulations

A. Utility developments shall, through coordination with government agencies, provide for compatible, multiple use 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.

B. In shoreline areas, utility transmission lines, pipelines, and cables shall be placed underground unless demonstrated to be infeasible. Further, such lines shall utilize existing rights-of-way, corridors and/or bridge crossings whenever possible. Proposals for new corridors in shoreline areas involving water crossings must fully substantiate the infeasibility of existing routes.

C. 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.

D. Clearing for the installation or maintenance of utilities shall be kept to a minimum and, upon project completion, any disturbed area shall be restored as nearly as possible to pre-project conditions, including replanting with native species, or other species as approved by the City, and maintenance care. If the previous condition is identified as being undesirable, then landscaping and other improvements shall be undertaken.

E. The location and construction of outfalls shall comply with all appropriate federal, state, county and city regulations.

F. The City of Lake Forest Park shall maintain, enhance and restore the natural drainage systems to protect water quality, reduce flooding, reduce public costs and prevent associated environmental degradation for a no net loss of shoreline ecological functions.

G. The City shall establish maintenance procedures to assure continued proper functioning of surface water management and drainage systems.

H. New utility lines including electricity, communications, and fuel lines shall be located underground. Existing above ground lines shall be moved underground when properties are redeveloped or in conjunction with major system upgrades or replacements.

I. 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.

J. Proposals for new utility corridors shall fully substantiate the infeasibility of existing routes.

K. Utility development shall, through coordination with local government agencies, provide for compatible, multiple use of sites and rights-of-way.

CHAPTER 8: SHORELINE MODIFICATION ACTIVITY REGULATIONS

8.1 Introduction

Shoreline modification activities are those actions that modify the physical configuration or qualities of the shoreline area. Shoreline modification activities are, by definition, undertaken in support of or in preparation for a permitted shoreline use. A single use may require several different shoreline modification activities.

Shoreline modification activity 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 Shoreline Management Act. 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: Clearing and Grading, Shoreline Stabilization, Dredging and Fill, and Overwater Structures.

Table 8.1 Shoreline Modification Activities

(Note: See the actual standards contained within this chapter for a full explanation of activities and required conditions for permitted activities.)

	Shoreline Environment		
Shoreline Modification Activity	**Shoreline Residential**	**Urban Conservancy**	**Aquatic**
CLEARING AND GRADING	Permitted	Conditional Use Permit	See adjacent upland environment
SHORELINE STABILIZATION			
Beach Restoration and Enhancement	Permitted	Permitted	
Soil Bioengineering	Permitted	Permitted	
Breakwaters	Prohibited	Prohibited	
Bulkheads	Permitted	Conditional Use Permit	
Groins	Conditional Use Permit	Conditional Use Permit	
Jetties	Prohibited	Prohibited	
DREDGING & FILL			
Dredging	Conditional Use Permit	Conditional Use Permit	
Fill	Conditional Use Permit	Conditional Use Permit	

Shoreline Modification Activity	Shoreline Environment		
	Shoreline Residential	Urban Conservancy	Aquatic
OVERWATER STRUCTURES			
Accessory to Residential Structures:			
Recreational Float	Permitted	Prohibited	
Boathouse	Prohibited	Prohibited	
Pier, Float, Joint Use Structure, Buoy, Moorage Pile	Permitted	Prohibited	
Floating Dock	Prohibited	Prohibited	
Moorage Cover	Permitted	Prohibited	
Boatlift, Boatlift Canopy	Permitted	Prohibited	
Launching Ramp	Prohibited	Prohibited	
Launching Rails	Permitted	Prohibited	
Not Accessory to Residential Structures:			
Recreational Float	Conditional Use Permit	Conditional Use Permit	
Boathouse	Prohibited	Prohibited	
Joint Use Pier, Float, Buoy, Moorage Pile	Permitted	Permitted	
Non-Joint Use Pier, Float, Buoy, Moorage Pile	Conditional Use Permit	Conditional Use Permit	
Floating Dock	Prohibited	Prohibited	
Moorage Cover	Conditional Use Permit	Prohibited	
Boatlift, Boatlift Canopy	Conditional Use Permit	Conditional Use Permit	
Launching Ramp	Prohibited	Conditional Use Permit	
Launching Rails	Conditional Use Permit	Prohibited	
Excavated Moorage Slips	Conditional Use Permit	Conditional Use Permit	

See adjacent upland environment

8.2 Clearing and Grading

Applicability

Clearing and grading is the activity associated with developing property for a particular use including commercial, industrial, recreational, and residential. Specifically, "clearing" means the destruction or removal of vegetative ground cover and/or trees including, but not limited to, root material removal and/or topsoil removal. "Grading" means the physical manipulation of the earth's surface and/or surface drainage pattern without significantly adding or removing on-site materials. However, grading can also involve both the export of materials off-site or the import of materials from an off-site source. Both of these activities may cause erosion, siltation, increase runoff and flood volumes, reduce flood storage capacity, and damage habitat.

Although it may not technically be considered "development," clearing as an activity will be regulated in order to achieve the design goals and objectives of the SMA, particularly along Shorelines of Statewide Significance where preservation of natural shoreline characteristics is a very high priority. Grading is considered a development activity for the purposes of this SMP and should be managed accordingly.

Policies

Policy 8.2.1 All clearing and grading activities should be designed and conducted to minimize impacts to wildlife habitat; to minimize sedimentation of creeks, streams, ponds, lakes, wetlands and other water bodies; and to minimize degradation of water quality.

Policy 8.2.2 Clearing and grading activities in shoreline areas should be limited to the minimum necessary to accommodate shoreline development. Such activities should be discouraged in designated (structural) setback areas and allowed in other shoreline locations only when associated with a permitted shoreline development.

Policy 8.2.3 Adverse environmental and shoreline impacts of clearing and grading should be avoided wherever possible 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.

Policy 8.2.4 Cleared and disturbed sites remaining after completion of construction should be promptly replanted with native vegetation or with other species as approved by the City.

Policy 8.2.5 All clearing and grading activities should be designed with the objective of maintaining natural diversity in vegetation species, age, and cover density.

Policy 8.2.6 For proposed land clearing, landfill, or grading activities over fifty (50) cubic yards in quantity, or a cut of three (3) feet or more, or a fill of two (2) feet or more, a clearing and grading plan addressing species removal, replanting, irrigation, erosion and sedimentation control and other methods of riparian corridor protection should be required.

Regulations

A. All clearing and grading activities must adhere to the requirements of the City's code pertaining to land, clearing and grading (Lake Forest Park Municipal Code, Chapter 16.08).

B. Clearing and grading activities may only be allowed when associated with a permitted shoreline development.

C. Land clearing, grading, filling and alteration of natural drainage features and landforms shall be limited to the minimum necessary for development. 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 time, the vegetation is at least ninety (90) percent reestablished.

D. More specific and stringent clearing and grading performance standards, including relevant requirements from the City of Lake Forest Park Environmentally Sensitive Areas Regulations for the Shoreline Management Area, as contained in Appendix A, may be required as a condition of permit issuance to ensure the proposal will result in no net loss of shoreline ecological functions.

E. Normal nondestructive pruning and trimming of vegetation for maintenance purposes shall not be subject to these clearing and grading regulations. In addition, clearing by hand-held equipment of invasive nonnative shoreline vegetation or plants listed on the State Noxious Weed List is permitted in shoreline locations.

F. Any significant placement of materials from off-site (other than surcharge or preload), or the substantial creation or raising of dry upland shall be considered fill and shall also comply with the fill provisions in *Chapter 8: Shoreline Modification Activity Regulations.*

G. Alteration of the natural landscape shall only be allowed in association with a permitted shoreline use or development with limited exceptions as set forth below:

1. 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 best management practices and the City of Lake Forest Park's engineering design standards and native vegetation is promptly reestablished in the disturbed area.

2. Modification of vegetation in association with a legal, non-conforming use or development provided that said modification is conducted in a manner consistent with this Master Program and results in no net loss to ecological functions or critical fish and wildlife habitats.

3. Maintenance or restoration of view sheds situated on public lands provided that said activity is conducted in a manner consistent with this Master Program and results in no net loss to ecological functions or critical fish and wildlife habitat areas.

H. In all cases where clearing is followed by revegetation, native plants shall be preferred. Extensive lawns are discouraged due to their limited erosion control value, limited water retention capacity, and associated chemical and fertilizer applications.

I. Do not permit clearing and grading within areas classified by the City's Environmentally Sensitive Areas Regulations as environmentally sensitive areas or their buffers unless no other feasible alternative exists and then only when the proposal complies with all of the requirements of the City of Lake Forest Park Environmentally

Sensitive Areas Regulations for the Shoreline Management Area, as contained in Appendix A.

8.3 Shoreline Stabilization

Applicability

Shoreline stabilization includes actions taken to address erosion impacts to property caused by natural processes, such as current, flood, wake or wave action. These actions include all structural and nonstructural methods. "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 biotechnical vegetation measures or beach enhancement. Nonstructural methods include building setbacks, relocation of the structure to be protected, ground water management, planning and regulatory measures to avoid the need for structural stabilization. Generally, the harder the construction measure, the greater the impact on shoreline processes, including sediment transport, geomorphology, and biological functions. The means taken to reduce damage caused by erosion, accretion, and flooding must recognize the positive aspects of each of these processes in order to retain 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.

Specific structural methods included in this use activity are beach restoration and enhancement; soil bioengineering; bulkheads; and groins. Many of these techniques are currently being used in Lake Forest Park, or are techniques that could be used to address local shoreline issues.

General policies and regulations addressing shoreline stabilization methods applicable to the City are presented in the following sections. Additional discussion of the individual stabilization methods and policies and regulations specific to them are provided following the general policies and regulations section.

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 recreation purposes, various grades of clean sand or pea gravel are often used to create a beach above the ordinary high water mark. Restoration or re-creation of a shore feature may require a rock and gravel matrix and/or creation of other materials appropriate for the intended use. For purposes of restoring or enhancing salmonid habitat, small gravel sizes are preferred below the ordinary high water mark.

Soil Bioengineering

Soil bioengineering is the term given to the practice of using natural vegetative materials to stabilize shorelines and prevent erosion. This may include use of bundles of stems, root systems, or other living plant material; fabric or other soil stabilization techniques; 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 areas such as the Lake Washington shoreline in Lake Forest Park, 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 natural character of the shoreline. 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. The primary purpose they serve 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.

NOTE: EXEMPTIONS ARE DESCRIBED IN FULL IN CHAPTER 3 –ADMINISTRATION

General Policies

Policy 8.3.1 Hard structural solutions to reduce shoreline damage from erosion should be allowed only after it is demonstrated that nonstructural or soft structural solutions would not provide sufficient protection to existing primary structures or essential components of a primary use, such as driveways or utilities. This does not apply to accessory structures, such as boat houses or sheds. Nonstructural and soft structural solutions include (but are not limited to) soil

bioengineering, beach enhancement, alternative site designs, drainage improvements and increased building setbacks (for proposed structures).

Policy 8.3.2 Proposals for shoreline stabilization activities should address the impact of these activities on Lake Washington and the larger aquatic environment. This planning should consider off-site erosion, accretion, or flood damage that might occur as a result of shoreline stabilization structures or activities.

Policy 8.3.3 Shoreline stabilization on the Lake Washington shoreline should not be used to create new or newly usable land.

Policy 8.3.4 Shoreline stabilization structures should allow passage of ground and surface waters into Lake Washington.

Policy 8.3.5 The burden of proof for the need for shoreline stabilization to protect existing primary structures or components of a primary use rests on the applicant(s).

Policy 8.3.6 Shoreline stabilization structures should be located, designed and constructed to minimize adverse impact on the property of others.

Policy 8.3.7 All new shoreline development should be located and designed to prevent or minimize the need for shoreline modification activities.

Policy 8.3.8 Areas of significance in the spawning, nesting, rearing, or residency of aquatic and terrestrial biota should be given special consideration in the review of shoreline stabilization actions.

Policy 8.3.9 Breakwater construction should be prohibited in the shoreline jurisdiction of Lake Forest Park.

Policy 8.3.10 Jetties should be prohibited in the shoreline jurisdiction of Lake Forest Park. Groins should generally be discouraged unless part of an overall system approach.

Policy 8.3.11 Give special attention to the effect these shoreline modification structures will have on aesthetic qualities of the shoreline, public access and use of the water.

Policy 8.3.12 Consider the effect that proposed shoreline modification structures have on ecosystem-wide processes (e.g., sediment movement) and functions (e.g., habitat). Make provisions to avoid and minimize impacts where feasible.

Policy 8.3.13 Mitigation for shoreline stabilization must be provided to achieve no net loss of ecological functions necessary to sustain shoreline natural resources.

Regulations

A. General

1. 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.

2. Shoreline stabilization shall be permitted only when it has been demonstrated that shoreline stabilization is necessary for the protection of legally established structures and public improvements. The Shoreline Administrator shall require a report prepared by a qualified professional that demonstrates that there are no other feasible options to the proposed shoreline stabilization that have less impact on the shoreline environment. Criteria for these reports shall be established by administrative rule.

3. Shoreline stabilization shall not be used to create new lands.

4. Shoreline stabilization shall not significantly interfere with normal surface and/or subsurface drainage into the water body.

5. Shoreline stabilization shall be designed so as not to constitute a hazard to navigation and to not substantially interfere with visual access to the water.

6. Shoreline stabilization shall be designed so as not to create a need for shoreline stabilization elsewhere.

7. Professional design (as approved by the City) of all shoreline stabilization or modification structures is required.

8. 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.

9. All shoreline modification activities shall be in support of a permitted shoreline use that is in conformance with the provisions of this Master Program unless it can be demonstrated that such activities are necessary and in the public interest.

10. All shoreline modification activities within the City must comply with all other regulations as stipulated by State and Federal agencies, local Tribes, or others that have jurisdiction.

B. Beach Restoration and Enhancement

1. Beach enhancement 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.

2. Natural Beach Restoration/Enhancement

   a. Design Standards. Natural beach restoration/enhancement shall **not**:

1) Extend waterward more than the minimum amount necessary to achieve the desired stabilization;

2) Disturb significant amounts of valuable shallow water fish/wildlife habitat without appropriate mitigation of the impacts.

b. Natural Beach Restoration Construction Standards.

1) 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.

2) The restored beach shall approximate, and may slightly exceed, the natural beach width, height, bulk or profile (but not as much as to obviously create additional dry land).

3. Beach enhancement is prohibited within fish and/or wildlife spawning, nesting, or breeding habitat that would be adversely affected by it and also where littoral drift of the enhancement materials would adversely affect adjacent spawning grounds or other areas of biological significance.

C. 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. 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 (100) percent reestablished to achieve no net loss of ecological functions of the shoreline area. Areas that fail to adequately reestablish vegetation shall be replanted with approved plant materials until such time as the plantings are viable. Additional performance standards may be established by the Shoreline Administrator in administrative rules.

3. Bank stabilization in the form of a vegetated buffer zone shall be maintained (e.g., weeding, watering, dead plant replacement) 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 buffer 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.

5. More specific and stringent performance standards, including relevant requirements from the City of Lake Forest Park Environmentally Sensitive Areas Regulations for the Shoreline Management Area, as contained in Appendix A, may be required as a

condition of permit issuance to ensure the proposal will result in no net loss of shoreline ecological functions.

D. Breakwaters

1. Breakwaters are not a permitted shoreline modification activity in Lake Forest Park. If, in the future, the need for breakwaters arises, the City will address provisions for breakwaters in an amendment to the SMP.

E. Bulkheads

1. New or Enlarged Structural Shoreline Stabilization –

a. For the purposes of this section, enlargement of an existing structural stabilization shall include additions to or increases in size (such as height, width, length, or depth). Primary structure includes appurtenances listed under WAC 173-14-040, but not tool sheds, greenhouses, swimming pools, spas and other *accessory structures* as defined in Chapter 2.

b. When allowed:

The City may only approve a new or enlarged hard or soft structural stabilization measure in the following circumstances:

1) To protect an existing primary structure, including a detached dwelling unit, in either of the following circumstances:

a) The existing primary structure is located ten (10) feet or less from the OHWM. For the purposes of the provision, the distance shall be measured to the most waterward location of the primary structure, or

b) The existing primary structure is located more than ten (10) feet from the OHWM.

In order to be approved, the applicant must demonstrate the following:

i. For new or enlarged hard structural stabilization, conclusive evidence, documented by a geotechnical analysis that the primary structure is in danger from shoreline erosion caused by waves. The analysis must show that there is a significant possibility that an existing structure will be damaged within three (3) years as a result of shoreline erosion in the absence of hard structural stabilization measures, or where waiting until the need is immediate results in the loss of opportunity to use measures that would avoid impacts on ecological functions. Where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three (3) years, the report may still be used to justify more immediate authorization to protect against erosion using soft structural stabilization measures.

ii. For new soft structural stabilization measures, demonstrate need for structural stabilization to protect the new primary structure.

iii. For hard and soft stabilization measures, any on-site drainage issues have

been directed away from the shoreline edge prior to considering structural stabilization.

iv. For hard and soft shoreline stabilization measures, nonstructural measures, such as planting vegetation, or installing on-site drainage improvements are shown not to be feasible or sufficient to protect the primary structure.

2) To protect a new primary structure, including a detached dwelling unit, when all of the conditions below apply:

a) For new non water-dependant uses, placing the new primary structure farther upland from the OHWM is not feasible or not sufficient to prevent damage to the primary structure;

b) Upland conditions, such as drainage problems and the loss of vegetation, are not causing the erosion;

c) Nonstructural measures, planting vegetation, or installing on-site drainage improvements are shown not to be feasible or sufficient to prevent damage to the primary structure; and

d) The need to protect the new primary structures from potential damage is due to erosion from wave action. For hard structural stabilization measures, a geotechnical report must be submitted demonstrating need. For soft structural stabilization measures, an assessment by a qualified professional must be submitted demonstrating need.

3) To protect projects for the restoration of ecological functions or for hazardous substance remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

2. Submittal Requirements for New or Enlarged Hard and Soft Structural Stabilization Measures -

In addition to the requirements described in 8.3.E.1 above, the following shall be submitted to the City for proposed new or enlarged structural stabilization measures when an existing primary structure is more than 10 feet from the OHWM or when proposed concurrently with a new primary structure:

a. A geotechnical report prepared by a qualified professional with an engineering degree. The report shall include the following:

1) An assessment of the necessity for structural stabilization by estimating time frames and rates of erosion and documenting the urgency associated with the specific situation.

2) An assessment of the cause of erosion, including on-site drainage issues, looking at processes occurring both waterward and landward of the OHWM.

3) An assessment of the feasibility of using nonstructural or soft shoreline stabilization measures in lieu of hard structural shoreline stabilization measures.

4) For both hard and soft structural shoreline stabilization measures, design recommendations for minimizing the sizing of shoreline stabilization materials, including gravel and cobble beach substrates necessary to dissipate wave energy, eliminate scour, and provide long-term shoreline stability.

b. See additional submittal requirements below in subsections 7, 8 and 9 for general submittal requirements, maintenance agreement and general design standards.

3. Replacement or Major Repair of Hard Structural Shoreline Stabilization -

a. For the purposes of this section, major repair or replacement of a hard shoreline stabilization measure shall include the following activities:

1) A repair needed to a portion of an existing stabilization structure that has collapsed, eroded away or otherwise demonstrated a loss of structural integrity, or in which the repair work involves modification of the toe rock or footings, and the repair is 50 percent or greater than the linear length of the shoreline stabilization measure; or

2) A repair to more than 75 percent of the linear length of the existing hard structural shoreline stabilization measure in which the repair work involves replacement of top or middle course rocks or other similar repair activities.

b. When allowed -

The City may only approve a major repair or replacement of an existing hard structural stabilization measure with a hard structural shoreline stabilization measure to protect existing primary structures or principal uses, including detached dwelling units, in either of the following circumstances:

1) The primary structure is located 10 feet or less from the OHWM. For the purposes of the provision, the distance shall be measured to the most waterward location of the primary structure; or

2) For a primary structure located more than 10 feet from the OHWM or a use, conclusive evidence is provided to the City that the primary structure or use is in danger from shoreline erosion caused by waves as required in 8.3.E.4 below.

4. Submittal Requirements for Major Repairs or Replacements of Hard Stabilization Measures -

The following shall be submitted to the City for proposed replacement of structural stabilization measures when the primary structure is located more than 10 feet landward of the OHWM or for a use with no primary structure:

a. Written narrative that provides a demonstration of need shall be submitted. A qualified professional (e.g., shoreline designer or other consultant familiar with lakeshore processes and shore stabilization), but not necessarily a licensed geotechnical engineer, shall prepare a written narrative. The written narrative shall consist of the following:

1) An assessment of the necessity for hard or soft structural stabilization, considering site-specific conditions such as water depth, orientation of the shoreline, wave fetch, and location of the nearest structure.

2) An assessment of erosion potential resulting from the action of waves or other

natural processes operating at or waterward of the OHWM in the absence of the hard or soft structural shoreline stabilization.

3) An assessment of the feasibility of using soft structural stabilization measures in lieu of hard structural shoreline stabilization measures. Soft stabilization may include the use of gravels, cobbles, boulders, and logs, as well as vegetation.

b. Design recommendations for minimizing impacts and ensuring that the replacement or repaired stabilization measure is designed, located, sized, and constructed to assure no net loss of ecological functions.

c. See additional submittal requirements below in subsections 7, 8 and 9 for general submittal requirements, maintenance agreement and general design standards.

5. Minor Repairs of Hard Shoreline Stabilization –

Minor repairs of hard shoreline stabilization include those maintenance and repair activities not otherwise addressed in the subsection above. The City shall allow minor repair activities to existing hard structural shoreline stabilization measures.

6. Repair or Replacement of Soft Shoreline Stabilization and Submittal Requirements –

a. The City shall allow repair or replacement of soft shoreline stabilization.

b. The applicant shall submit to the City design recommendations for minimizing impacts and ensuring that the replacement or repaired stabilization measure is designed, located, sized, and constructed to assure no net loss of ecological functions.

c. See additional submittal requirements below in subsections 7, 8 and 9 for general submittal requirements, maintenance agreement and general design standards.

7. General Submittal Requirements for New, Enlarged, Replacement and Major Repair Measures --

Detailed construction plans shall be submitted to the City, including the following:

a. Plan and cross-section views of the existing and proposed shoreline configuration, showing accurate existing and proposed topography and OHWM.

b. Detailed construction sequence and specifications for all materials, including gravels, cobbles, boulders, logs, and vegetation. The sizing and placement of all materials shall be selected to accomplish the following objectives:

1) Protect the property and structures from erosion and other damage over the long term, and accommodate the normal amount of alteration from wind- and boat-driven waves;

2) Allow safe passage and migration of fish and wildlife; and

3) Minimize or eliminate juvenile salmon predator habitat.

c. For hard structural stabilization measures when shoreline vegetation is required as part of mitigation, a detailed 5-year vegetation maintenance and monitoring program to include the following:

1) Goals and objectives of the shoreline stabilization plan;

2) Success criteria by which the implemented plan will be assessed;

3) A 5-year maintenance and monitoring plan, consisting of one (1) site visit per year by a qualified professional, with annual progress reports submitted to the Shoreline Administrator and all other agencies with jurisdiction;

4) A contingency plan in case of failure; and

5) Proof of a written contract with a qualified professional who will perform the monitoring.

d. Fee for a consultant selected by the City to review the shoreline stabilization plan, the monitoring and maintenance program, the narrative justification of demonstrated need, and drawings. In addition, the Shoreline Adminstrator may require a fee for a consultant to review the geotechnical report and recommendations.

8. General Design Standards - The following design standards shall be incorporated into the stabilization design:

a. Soft structural shoreline stabilization measures shall be used to the maximum extent feasible, limiting hard structural shoreline stabilization measures to the portion or portions of the site where necessary to connect to existing hard shoreline stabilization measures on adjacent properties. The length of hard structural shoreline stabilization connections to adjacent properties shall be minimized to the maximum extent feasible, and extend into the subject property from adjacent properties no more than needed.

b. For enlarged, major repair or replacement of hard structural shoreline stabilization measures, excavation and fill activities associated with the structural stabilization shall be landward of the existing OHWM, except when not feasible due to existing site constraints or to mitigate impacts of hard structural stabilization by increasing shallow water habitat with gravel, rocks and logs.

c. For short-term construction activities, hard and soft structural stabilization measures must minimize and mitigate any adverse impacts to ecological functions by compliance with appropriate timing restrictions, use of best management practices to prevent water quality impacts related to upland or in-water work, and stabilization of exposed soils following construction.

d. For long-term impacts, new, enlarged or major repair or replacement of hard structural shoreline stabilization shall incorporate the following measures into the design wherever feasible.

1) Limiting the size of hard structural shoreline stabilization measures to the minimum necessary, including height, depth, and mass.

2) Shifting hard stabilization structures landward and/or sloping the structure landward to provide some dissipation of wave energy and increase the quality or quantity of nearshore shallow-water habitat.

e. For new and enlarged hard shoreline stabilization, the following additional measures shall be incorporated into the design:

1) To increase shallow-water habitat, install gravel/cobble beach fill waterward of the OHWM, grading slope to a maximum of 1 vertical (v): 4 horizontal (h). The material shall be sized and placed to remain stable and accommodate alteration from wind- and boat-driven waves.

2) Plant native riparian vegetation as follows:

   a) At least 75 percent of the nearshore riparian area located along the edge of the OHWM shall be planted.

   b) The vegetated portion of the nearshore riparian area shall average ten (10) feet in depth from the OHWM, but may be a minimum of 5 feet wide to allow for variation in landscape bed shape and plant placement provided that the total square footage of the area planted equals ten (10) feet along the water's edge.

   c) Restoration of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least 3 trees per 100 linear feet of shoreline and 60% shrubs must be included in the plan.

   d) Plant materials must be native or other native or shoreline appropriate species approved by the Shoreline Administrator.

   e) An alternative planting plan or mitigation measure in lieu of meeting this section shall be allowed if approved by other state and federal agencies. In addition, the City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this section, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation.

   f) Standards for vegetation placement are provided in Section 6.7.

f. Hard and soft shoreline stabilization measures shall be designed to not significantly interfere with normal surface and/or subsurface drainage into Lake Washington, constitute a hazard to navigation or extend waterward more than the minimum amount necessary to achieve effective stabilization.

g. Hard and soft stabilization measures are allowed to have gravel, logs and rocks waterward of the OHWM, as approved by the City and federal and state agencies, to provide enhancement of shoreline ecological functions through creation of nearshore shallow-water habitat.

h. Stairs or other water access measures may be incorporated into the shoreline stabilization, but shall not extend waterward of the shoreline stabilization measure.

i. The shoreline stabilization measures shall be designed to ensure that the measures do not restrict public access or make access unsafe to the shoreline. Access measures shall not extend farther waterward than the face of the shoreline stabilization structure.

j. See 8.3.E.10 and 11 below concerning additional design standards for hard structural stabilization and 8.3.E.12 for soft structural stabilization.

9. Specific Design Standards for New or Enlarged Hard Structural Stabilization –

   In addition to the general design standards in 8.3.E.9 above, the following design standards shall be incorporated:

   a. Where hard stabilization measures are not located on adjacent properties, the construction of a hard stabilization measure on the site shall tie in with the existing contours of the adjoining properties, as feasible, such that the proposed stabilization will not cause erosion of the adjoining properties.

   b. Where hard stabilization measures are located on adjacent properties, the proposed hard stabilization measure may tie in flush with existing hard stabilization measures on adjoining properties, but by no more than as reasonably required. The new hard stabilization measure shall not extend waterward of the OHWM, except as necessary to make the connection to the adjoining hard stabilization measures. No net intrusion into the lake and no net creation of upland shall occur with the connection to adjacent stabilization measures.

   c. Fill behind hard shoreline stabilization measures shall be limited to an average of one (1) cubic yard per running foot of bulkhead. Any filling in excess of this amount shall be considered a regulated activity subject to the regulations in this Chapter pertaining to fill activities and the requirement for obtaining a shoreline substantial development permit.

10. Specific Design Standards for Replacement of Hard Structural Stabilization –

    Replacement hard structural stabilization measures shall not encroach waterward of the OHWM or waterward of the existing shoreline stabilization measure unless the primary structure was constructed prior to January 1, 1992 (RCW 90.58.100.6 and WAC 173.26.241 and WAC 173.26.231.3.j), and there is overriding safety or environmental concerns if the stabilization measure is moved landward of the OHWM. In such cases, the replacement structure shall abut the existing shoreline stabilization structure. All other replacement structures shall be located at or landward of the existing shoreline stabilization structure.

11. Specific Design Standards for Soft Structural Stabilization –

    In addition to the general design standards in 8.3.E.9, the following design standards shall be incorporated:

    a. Provide sufficient protection of adjacent properties by tying in with the existing contours of the adjoining properties to prevent erosion at the property line. Proposals that include necessary use of hard structural stabilization measures only at the property lines to tie in with adjacent properties shall be permitted as soft structural shoreline stabilization measures. The length of hard structural stabilization connections to adjacent properties shall be the minimum needed and extend into the subject property from adjacent properties as reasonably required.

    b. Size and arrange any gravels, cobbles, logs, and boulders so that the improvement remains stable in the long-term and dissipate wave energy, without presenting extended linear faces to oncoming waves.

12. Expansion of SMA Jurisdiction from Shift in OHWM -

    If a shoreline stabilization measure from any action required by this Section or intended to

improve ecological functions results in shifting the OHWM landward of the pre-modification location that expands the shorelines jurisdiction onto any property other than the subject property, then:

a. The City shall notify the affected property owner in writing, and

b. The City may propose to grant relief for the affected property owners from applicable shoreline regulations resulting in expansion of the shorelines jurisdiction.

F. Groins

1. Groins shall only be permitted as a conditional use for erosion control, fisheries or habitat enhancement, and public beach management as an integral component of a professionally designed community resource or public beach management plan.

2. All groins must be in support of an allowable shoreline use that is in conformance with the provisions of this Master Program unless it can be demonstrated that such activities are necessary and in the public interest for the maintenance of shoreline environmental resources.

3. The design of groins shall comply with all other regulations as stipulated by State and Federal agencies, local Tribes, or others that have jurisdiction.

8.4 Dredging and Fill

Applicability

Although these activities may occur separately from one another, they are often all parts of the same shoreline modification process and are, therefore, considered together in the following policies and regulations.

Dredging and Dredge Material Disposal

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 in the following ways: (1) temporary reduction of water clarity from suspended sediments, (2) loss of aquatic plants and animals by direct removal or from the sedimentation of

suspended materials, (3) alteration of the nutrient and oxygen levels of the water column, and (4) suspension of toxic materials from the sediments into the water column.

One shoreline activity that involves dredging is the development of excavated moorage slips. These slips are boat-mooring locations where the lake bottom has been excavated into a channel to allow the boat to dock in otherwise too-shallow water. As a result of the dredging necessary, development of excavated moorage slips will disturb bottom sediments and aquatic life.

Fill

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 that manner that raises the elevation or creates dry land.

Fill is usually considered in locations where the water is shallow and where rooted vegetation often occurs. In their natural condition, these same areas provide valuable habitat for fish and wildlife feeding, breeding, and shelter. Biologically, the shallow vegetation 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.

The policies contained herein are intended to focus on the aspects of natural systems affected by dredging and the disposal of dredge material, man-made fill, cuts, excavations and site grading actions, while at the same time recognizing the community's needs.

Fill occurring on dry land landward of the OHWM which does not exceed a cost of five thousand seven hundred eighteen (5,718) dollars or 250 cubic yards of material (per WAC 173-27-040), does not require a shoreline substantial development permit, as noted elsewhere in this Master Program. This development, however, must comply with all other applicable policies and regulations as defined in this Master Program.

Policies

<u>Dredging</u>

Policy 8.4.1 Dredging in Lake Washington should be restricted to the minimum necessary to support existing water-dependent, water-oriented or water related use and only when other solutions would result in greater environmental impacts. New development should not be proposed in areas which would require maintenance dredging.

Policy 8.4.2 Dredging waterward of the ordinary high water mark for the primary purpose of obtaining fill or construction material is prohibited.

Policy 8.4.3 In all cases, dredging operations should be planned and conducted to protect and maintain existing aquatic habitat and other shoreline uses, properties, and values.

Policy 8.4.4 Dredging operations should be designed and scheduled to avoid impacts to fish, including impacts to fish migration, rearing, feeding and spawning.

Policy 8.4.5 Dredging and dredge material disposal should be located and conducted in a manner that minimizes damage to existing ecological values and natural resources of the area to be dredged and of the disposal site. Proposals that include dredging shall provide mitigation to achieve no net loss of shoreline ecological functions.

Policy 8.4.6 Dredge material disposal in water bodies should be prohibited, except for habitat improvement projects.

Policy 8.4.7 The City of Lake Forest Park supports the implementation of a regional, interjurisdictional study of the cause and effects of increasing siltation and sedimentation in the northern end of Lake Washington. This study should include an examination of the pros and cons of potential solutions to this problem, including dredging.

Policy 8.4.8 Dredging and dredge material disposal should be prohibited in wetlands, except for the purposes of enhancing valuable wetland functions. A design prepared by a qualified wetland scientist is required prior to allowing dredging and/or disposal of dredge spoils into a wetland.

Policy 8.4.9 Dredging should utilize techniques (such as hydraulic dredging instead of agitation dredging) that cause minimal dispersal and broadcast of bottom material.

Policy 8.4.10 The City of Lake Forest Park may impose limitations on dredging activities, such as limited operating hours, time periods, and requirements for buffer strips at the site.

Policy 8.4.11 If suitable alternatives for land disposal are not available or are infeasible, water disposal sites shall be identified consistent with the following criteria:

a. Disposal will not interfere with geohydraulic processes;

b. The dredge spoil has been analyzed by qualified personnel and found to be nonpolluting;

c. Aquatic life will not be adversely affected; and

d. The site and method of disposal meets all requirements of applicable regulatory agencies.

<u>Fill</u>

Policy 8.4.12 Fills waterward of the OHWM should be allowed only when necessary to facilitate water-dependent and/or public access uses which are consistent with this Master Program.

Policy 8.4.13 Shoreline fills should be designed and located so that there will be no significant damage to existing ecological systems or natural resources, and no alteration of local currents, surface and subsurface drainage, or flood waters which would result in hazard to adjacent life, property, or natural resource systems.

Policy 8.4.14 Where permitted, fill coverage should be the minimum necessary to provide for the proposed use. Fills should be permitted only when tied to a specific development proposal that is permitted by the master program.

Policy 8.4.15 In evaluating fill projects, factors such as current and potential public use of the shoreline and water surface area, navigation, 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 Shoreline Management Act and this Master Program.

Policy 8.4.16 The perimeter of fills 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.

Policy 8.4.17 Replenishing sand on public and private community beaches should be allowed, subject to the assurance of no net loss of ecological functions in the process.

Policy 8.4.18 Sanitary landfills should not be located in shoreline jurisdiction.

Regulations

Dredging

A. Dredging is only permitted as a conditional use activity in Lake Forest Park where the applicant can demonstrate that the proposal, including any necessary mitigation, will result in no net loss of shoreline ecological functions. New development shall not be sited in areas which may require future maintenance dredging.

B. Excavated moorage slips for all residential uses are prohibited in the City of Lake Forest Park.

C. Maintenance dredging of existing excavated moorage slips for public and private noncommercial shoreline recreational uses may be permitted as a conditional use activity in the City of Lake Forest Park. However, deepening of existing moorage areas beyond maintenance dredging levels is prohibited.

D. Dredging waterward of the ordinary high water mark may be permitted only:

1. For navigation or navigational access;

2. In conjunction with a water-dependent use of water bodies or adjacent shorelands;

3. As part of an approved habitat improvement project;

4. If it improves water quality; and

5. When applicable permits of other local, state and federal agencies have been obtained.

E. When dredging is permitted, the extent of dredging shall be the minimum necessary to accommodate the proposed use.

F. Dredging for the primary purpose of obtaining fill or construction material is prohibited.

G. 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.

H. Dredging material which will not subsequently cause violation of State Water Quality Standards may be used in permitted landfill projects.

I. Excavations on beaches 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.

J. Dredging shall be timed so that it does not interfere with aquatic life.

K. Individual disposal operations shall comply with Department of Natural Resources leasing practices, the Department of Ecology Water Quality Certification process, and the permit requirements of the State Department of Fish and Wildlife and the U.S. Army Corps of Engineers.

L. Depositing dredge materials in water areas may be allowed only by conditional use permit for one (1) or more of the following reasons:

1. For wildlife habitat improvement;

2. To correct problems of material distribution adversely affecting fish;

3. For permitted beach enhancement;

4. When the alternative of depositing material on land is demonstrated to be more detrimental to shoreline resources than depositing it in water areas; or

5. In approved open-water disposal sites as identified by appropriate agencies.

M. Disposal of dredge material shall be done only in approved sites.

N. Dredging and dredge material disposal is prohibited in wetlands, except for the purposes of enhancing valuable wetland functions. A design prepared by a qualified wetland scientist is required prior to allowing dredging and/or disposal of dredge spoils into a wetland.

O. Dredging shall utilize techniques (such as hydraulic dredging instead of agitation dredging) that cause minimal dispersal and broadcast of bottom material.

P. The City of Lake Forest Park may impose limitations on dredging activities, such as limited operating hours, time periods, and requirements for buffer strips at the site.

Q. If suitable alternatives for land disposal are not available or are infeasible, water disposal sites shall be identified consistent with the following criteria:

1. Disposal will not interfere with geohydraulic processes;

2. The dredge spoil has been analyzed by qualified personnel and found to be nonpolluting;

3. Aquatic life will not be adversely affected; and

4. The site and method of disposal meets all requirements of applicable regulatory agencies.

Fill

R. Fills waterward of the OHWM shall be permitted as a conditional use only:

1. In conjunction with a water-dependent or public use permitted by this Master Program;

2. In conjunction with a bridge for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist;

3. For fisheries, aquaculture, or wildlife enhancement projects; and

4. As part of an approved beach restoration project.

S. Fills shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area.

T. All perimeters of fills shall be provided with vegetation, retaining walls, or other satisfactory mechanisms for erosion prevention and sediment capture.

U. Fill proposals must demonstrate, at a minimum, that they will result in no net loss of shoreline ecological functions.

V. Fill shall be permitted only where it is demonstrated that the proposed action will not:

1. Result in significant damage to water quality, fish, aquatic habitat, and/or wildlife habitat; or

2. Adversely alter natural drainage and circulation patterns, currents, or stream flows, or significantly reduce flood water holding capabilities.

W. No refuse disposal sites, solid waste disposal sites, or sanitary fills shall be permitted along the Lake Washington shoreline in Lake Forest Park.

X. Any placement or removal of materials landward of the OHWM shall comply with the provisions in the *Clearing and Grading* section of this chapter.

8.5 Overwater Structures: Piers, Docks, Floats and Buoys

Applicability

Piers and docks are structures which abut the shoreline and are used as a landing or moorage place for commercial transport, recreational watercraft, or other recreational purposes. 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. Piers and docks which serve more than four single-family residences, but are not used for permanent boat moorage, shall not be considered boating facilities and shall be regulated according to the provisions of this section.

Recreational floats are also addressed in this section. These floats are independent, anchored, off-shore platforms used for water-dependent recreational activities such as swimming and diving.

Various mooring systems are discussed, including moorage piles. Moorage piles are single piles located offshore to which a boat can be tethered. Launching ramps and lift stations used to place and remove boats from the water are also discussed.

Buoys are floating devices anchored to the lake bottom used for navigational purposes or moorage.

Boatlifts (including jetski lifts and platform lifts) are structures that elevate a boat above the water's surface. A boatlift canopy is elevated above and usually supported by the boatlift.

Currently, all of these overwater structures are present along the shoreline in Lake Forest Park.

All of these types of facilities have positive and negative environmental aspects. Floating docks generally have less of a visual impact than those 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 will disturb bottom sediments and aquatic life. Docks and piers alike create impediments to boat traffic. Pier construction requires regulation to protect navigation rights, to protect shoreline aesthetics, and to maintain the useable water surface and aquatic lands for life forms characteristic and important to those areas. The majority of the private residences along the Lake Forest Park shoreline currently have piers.

Exemptions

Piers for private, noncommercial pleasure craft, common to a single-family residence, and costing less than ten thousand ($10,000) dollars are exempt from the requirement for a shoreline substantial development permit pursuant to RCW 90.58.030(3)(e)(vii) and WAC 173-27-040(h). The ten thousand dollar ($10,000) threshold will be adjusted for inflation by the State Office of Financial Management every five years, beginning July 1, 2007, based upon changes in the consumer price index during that time period. The City will review all development proposals for piers to determine if:

1. The proposal is or is not exempt from the requirement for a substantial development permit;

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 Act, RCW 90.58.10(12), and this Master Program.

Policies

Policy 8.5.1 Pier construction should be consistent with current state and federal requirements for Lake Washington. Generally, these require fixed-pile construction, using metal or untreated pilings, narrow widths, and elevated and grated decking to minimize shading.

Policy 8.5.2 Piers should be discouraged where conflicts with recreational boaters and other recreational water activities would be created by pier construction.

Policy 8.5.3 The further proliferation of single-purpose piers should be discouraged. Preference should be given to the shared use of piers in shoreline areas.

Policy 8.5.4 Substantial additions or alterations to overwater structures, including, but not limited to, substantial developments, should be in conformance with the policies and regulations set forth in this Master Program.

Policy 8.5.5 New floating docks should not be allowed. Preference should be given to fixed-pile piers elevated above the OHWM; such piers may terminate in a floating section provided that the landward edge of the float is over water with a depth of ten (10) feet or more and are at least 30 feet from the OHWM. Recreation 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.

Policy 8.5.6 Overwater structures, including piers, boatlifts and moorage covers, should only be authorized after consideration of:

a. The effect such structures have on wildlife and aquatic life, water quality, scenic and aesthetic values, environmental sensitive resources, submerged lands, and submerged vegetation.

b. The effect such structures have on navigation, water circulation, recreational and commercial boating, sediment movement and littoral drift and shoreline access.

Policy 8.5.7 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.

Policy 8.5.8 Use of non-reflective materials in construction should be encouraged.

Policy 8.5.9 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.

Policy 8.5.10 The use of buoys for moorage should be considered preferable to the construction of piers, docks, or excavated moorage slips for this purpose. This Master Program encourages the use of buoys by allowing them to be sited under a Shoreline Exemption instead of a Substantial Development Permit, provided they do not exceed the $10,000 cost threshold, or as adjusted, and by allowing them to extend up to 150 feet from the Ordinary High Water Mark as a permitted use. Moorage buoys have, in most cases, much less of an impact on the aquatic environment as compared to piers and docks. Such buoys should be placed as close to shore as possible in order to minimize hazards to navigation.

Policy 8.5.11 Lighting facilities should be limited to the minimum extent necessary to locate the pier or dock at night.

Regulations

A. General Regulations for Private and Public Structures

1. All new, reconstructed, repaired, or modified overwater structures must comply with all other regulations as stipulated by State and Federal agencies, local Tribes, or others that have jurisdiction.

2. New floating docks shall not be permitted. Piers that terminate in a floating section are allowed provided that the landward edge of the float is over water with a depth of ten (10) feet or more and are at least 30 feet from the OHWM. All float tubs shall be fully encapsulated.

3. Proposed overwater structures which are not an accessory use to residential development and are not joint-use structures must obtain a conditional use permit. A conditional use permit may be granted if:

   a. The overwater structure does not create any potential adverse impacts to navigation or public safety;

   b. The overwater structure does not cause environmental impacts that cannot be sufficiently mitigated; and

   c. The overwater structure complies with all other conditional use criteria in WAC 173-27-160 as outlined in Chapter 3 of this Master Program.

4. Except for recreation floats, proposed overwater structures which are not accessory to a residential use and are granted a conditional use permit must comply with the regulations of this section for overwater structures which are accessory to single-family residential development.

5. Proposed overwater structures which do not comply with the dimensional standards contained in this chapter may only be approved if they obtain a variance.

6. No portion of the deck of a pier shall, during the course of the normal fluctuations of the elevation of the water body, protrude more than five (5) feet above the OHWM.

7. No residential dwelling unit may be constructed on a pier.

8. Grated decking is required on all new or replaced moorage facility surfaces.

9. All pier and dock dimensions shall be minimized to the maximum extent feasible. The proposed length must be the minimum necessary to support the intended use.

10. No skirting is permitted on any structure.

11. All piers, docks, floats, and similar structures shall float at all times on the surface of the water or shall be of fixed-pile construction. Floating structures shall at no time rest on the lake substrate.

12. All over-water structures and other water-use developments shall be constructed and maintained in a safe and sound condition. Abandoned or unsafe structures shall be removed or repaired promptly by the owner.

13. Lighting associated with overwater structures shall be beamed, hooded or directed to avoid causing glare on adjacent properties or waterbodies. Illumination levels shall be the minimum necessary for safety.

14. Piles, floats and other water-use structures that are in direct contact with water or over water shall not be treated or coated with herbicides, fungicides, paint, or pentachlorophenol. Use of wood members treated with arsenate compounds or creosote is prohibited.

15. Temporary moorages shall be permitted for vessels used in the construction of shoreline facilities. The design and construction of temporary moorages shall be such that upon termination of the project, the aquatic habitat in the affected area can be returned to its original (pre-construction) condition within one (1) year at no cost to the environment or the public.

16. Boathouses or other walled covered moorage are not permitted.

17. If a pier, ramp, or dock is provided with a safety railing, such railing shall not exceed 36 inches in height and shall be an open framework that does not unreasonably interfere with shoreline views of adjoining properties.

18. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night. Exterior finish shall be generally non-reflective.

19. No more than one moorage type is allowed per single-family residential lot, except that in cases when an existing moorage structure must be extended to a length consistent with this SMP to achieve adequate moorage depth, one (1) mooring buoy may be allowed as an alternative to structure extension.

B. New Piers

1. New piers may be permitted as an accessory to residential development provided:

   a. The applicant has demonstrated to the satisfaction of the Shoreline Administrator that a shared or joint-use pier is not feasible.

   b. No more than one (1) pier for each single-family residence is permitted.

c. On lots with less than fifty (50) feet of waterfront, joint-use piers shall be required, except when both lots abutting 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 fifty (50) feet of waterfront be permitted an individual pier.

2. A new, joint-use pier may be permitted on a community recreation lot shared by a number of waterfront and/or upland lots provided the applicant has demonstrated a need for moorage.

3. Development Standards

a. Only piers and ramps are permitted in the first 30 feet of the OHWM. All floats, fingers and ells must be at least 30 feet waterward of the OHWM.

b. All new decking must be fully grated.

c. Length.

i. The maximum waterward intrusion of any portion of any pier shall be one hundred twenty (120) feet. In cases where more than 80 feet are desired, the applicant shall demonstrate to the satisfaction of the Shoreline Administrator that there are unique circumstances that require additional length, such as situations where the excess pier length is necessary to achieve a minimum depth of 10 feet. The proposed length must be the minimum necessary to support the intended use.

ii. The maximum length of ells and fingers is 26 feet. The maximum length of a float is 20 feet.

d. Width.

i. The maximum width of a pier walkway is four (4) feet with ells and floats up to six (6) feet wide. Any additional fingers must be two (2) feet wide.

ii. The maximum width of a ramp connecting a pier to a float is 3 feet.

e. Size. Surface coverage, including all floats, ramps and ells, shall be limited to the following:

i. Four hundred eighty (480) square feet for a single property owner;

ii. Seven hundred (700) square feet for a joint-use structure utilized by two residential property owners;

iii. One thousand (1,000) square feet for a joint-use structure utilized by three or more residential property owners.

f. Spacing. Except for joint-use structures, piers shall be spaced a minimum of 20 feet apart from adjacent piers or 10 feet from the side yard, whichever is greater.

g. Piles. Piles shall be the minimum size allowed by site-specific engineering or design considerations, and shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds. Piles shall be spaced a minimum of 18 feet apart except when shown not to be feasible for site-specific engineering or design considerations.

h. Mitigation. All proposals involving new piers or docks are subject to the following mitigation requirements:

i. Any existing in-water and overwater structures shall be removed if they are associated with either a moorage structure or other recreational use that is located within 30 feet of the OHWM.

ii. Emergent vegetation shall be planted waterward of the OHWM, unless the City determines that it is not appropriate or feasible.

iii. Native riparian vegetation shall be planted in at least 75 percent of the nearshore riparian area located along the water's edge. The vegetated portion of the nearshore riparian area shall average ten (10) feet in depth from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Joint-use piers required under the provisions of this Chapter shall require a vegetative riparian zone along all properties sharing the pier. Other joint-use piers shall be required to provide the same mitigation as required for one property, which can be split evenly between the subject properties.

iv. Mitigation plantings shall be subject to the following requirements:

a) Restoration of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline and 60% shrubs must be included in the plan. Plant materials must be native. Plant density and spacing shall be appropriate for the site and commensurate with spacing recommended for each individual species proposed. An alternative planting plan or mitigation measure in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies.

In addition, the City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this section, including vegetation previously installed as

part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation.

v) In addition to a native planting plan, a 5-year vegetation maintenance and monitoring plan shall be submitted to the City for approval. The monitoring plan shall include the following performance standards:

a) Preparation of as-built drawings after installation of the mitigation plantings;

b) Annual monitoring reports for 5 years that include written and photographic documentation on tree and shrub mortality, subject to the following success criteria:

i. One-hundred (100) percent survival of all planted native trees and shrubs during the first two (2) years after planting; and

ii. One hundred (100) percent survival of trees and eighty (80) percent survival of remaining native plants in years three (3) through five (5).

Copies of reports that are submitted to state or federal agencies in compliance with permit approvals may be submitted in lieu of a separate report to the City, provided that the reports address a 5-year maintenance and monitoring plan.

i. The City shall approve the following modifications to a new pier proposal that deviates from the dimensional standards above, subject to both U.S Army Corps of Engineers and Washington Department of Fish and Wildlife approval to an alternate project design. The applicant shall provide documentation at the time of building permit submittal that the U.S. Army Corps of Engineers, and the Washington Department of Fish and Wildlife have approved the alternative proposal design. In addition, the following requirements and all other applicable provisions in this Chapter shall be met.

Administrative Approval for Alternative Design of New Private Pier or Dock	**Requirements**
State and Federal Agency Approval	U.S. Army Corps of Engineers, and the Washington Department of Fish and Wildlife have approved proposal
Maximum Area	No larger than authorized through state and federal approval

Maximum Width	4 ft. for portion of pier or dock located within 30 ft. of the OHWM; otherwise, 6 ft. for walkways Otherwise, the pier and all components shall meet the dimensional criteria listed above.
Minimum Water Depth	No shallower than authorized through state and federal approval

C. Replacement of Existing Private Pier or Dock

1. A replacement of an existing pier or dock shall meet the following requirements:

Replacement of Existing Private Pier or Dock	**Requirements**
Proposals involving replacement of the entire private pier or dock, or 75 percent or more of the pier-support piles	Must meet the dimensional, decking, and design standards for new piers as described in B.3 above, except the City may administratively approve an alternative design described in subsection 2, below.
Mitigation	Existing skirting shall be removed and may not be replaced. Existing in-water and overwater structures located within 30 feet of the OHWM, except for existing or authorized shoreline stabilization measures, shall be removed.

b. Alternative Design - The City shall approve the following modifications to a pier replacement proposal that deviates from the dimensional standards B.3 above, subject to both U.S Army Corps of Engineer and Washington Department of Fish and Wildlife approval to an alternate project design. In addition, the following requirements and all other applicable provisions in this Chapter shall be met.

Administrative Approval for Alternative Design of Replacement Private Pier or Dock	**Requirements**
State and Federal Agency Approval	U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved proposal
Maximum Area	No larger than existing pier
Maximum Length	26 ft. for fingers and float decking attached to a pier

	Otherwise, the pier and all components shall meet the standards noted in B.3 above
Maximum Width	4 ft. for portion of pier or dock located within 30 ft. of the OHWM; otherwise, 6 ft. for walkways 8 ft. for ells and float decking attached to a pier For piers with no ells or fingers, the most waterward 26 ft. section of the walkway may be 8 ft. wide Otherwise, the pier and all components shall meet the standards noted in B.3 above
Minimum Water Depth	No shallower than authorized through state and federal approval

With submittal of a building permit, the applicant shall provide documentation that the U.S. Army Corps of Engineers, and the Washington Department of Fish and Wildlife have approved the alternative proposal design.

D. Pier and Dock Additions

1. Additions to existing piers or docks may be permitted under the following circumstances:
   a. When additional length is required to reach 10 feet of water depth;
   b. When a single-use pier is converted to a joint-use pier; or
   c. When the addition of an ell or finger will increase safety and usability.

2. Enlarged portions must comply with the new pier or dock standards for length and width, height, water depth, location, and pilings and for materials as described in B.3 above.

3. Must convert an area of decking within 30 ft. of the OHWM to grated decking equivalent in size to the additional surface coverage.

4. Mitigation:
   a. The applicant must remove any in-water structures rendered obsolete by the addition;
   b. Planting must comply with mitigation requirements for new piers.

E. Repair of Existing Residential Pier or Docks

1. Repair proposals which replace 75 percent or greater of the existing pier-support piles are considered replacement piers and must comply with requirements for Replacement Piers.

2. Repair proposals which replace between 25 and 75 percent of the existing pier-support piles must achieve the minimum 18-foot spacing to the extent allowed by site-specific engineering or design considerations and shall install deck

grating on all areas of replaced decking.

3. All proposed replacement piles shall be the minimum size allowed by site-specific engineering or design considerations, and shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds.

4. Pile repair shall not utilize pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds.

5. Repair proposals which replace 50 percent or more of the decking must use grating as specified above.

6. Other repairs to existing legally established moorage facilities where the nature of the repair is not described in the above subsections shall be considered minor repairs and are permitted, consistent with all other applicable codes and regulations. If the cumulative repair proposed over a three-year period exceeds thresholds established for reconstructed or repaired piers listed above, the current repair proposal shall be reviewed under those provisions.

F. Boatlifts, Canopies, and Covered Moorage

1. Boatlifts and boatlift canopies may be permitted as an accessory to residential development, or as a conditional use in the Shoreline Residential and Urban Conservancy Environments when not accessory to residential structures, provided that:

   a. All lifts are placed as far waterward as feasible and safe,

   b. Boatlift canopies are elevated above the boatlift to the maximum extent practicable and are made of light-permeable fabric, and

   c. Any platform lifts are fully grated.

2. A moorage cover over a boat slip or boat lift may be permitted in the Shoreline Residential Environment when accessory to a residential structure or as a conditional use when not accessory to a residential structure , provided that:

   a. The cover must be constructed of light-permeable materials,

   b. The cover must be elevated above the water's surface to the maximum extent practicable, and

   c. The applicant demonstrates to the satisfaction of the Shoreline Administrator that the moorage cover is the minimum size necessary to serve the intended use of protecting the watercraft from the elements.

3. All lifts, canopies and covers must comply with all other regulations as stipulated by State and Federal agencies, local Tribes, or others that have jurisdiction.

4. Boat houses are not permitted.

G. Boat Launches

1. Launching rails may be permitted as an accessory to residential development, in lieu of a moorage pier, provided 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 ten (10) feet below the OHWM.

   a. Launching rails shall be anchored to the ground with the use of tie-type construction.

   b. No more than one (1) launching rail per single-family residence or duplex is permitted.

2. Launching ramps may be permitted as a conditional use for recreational uses in the Urban Conservancy Shoreline Environment provided 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 ten (10) feet below the OHWM.

H. Recreational Floats/Swim Platforms

1. Recreational floats may be permitted, provided:

   a. Area. 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 (100) square feet when associated with a public or private recreation land use.

   b. Distance waterward from the OHWM. Recreational floats must be in water with depths of 10 feet or more at the landward end of the float and may be located up to a maximum waterward distance of one hundred fifty (150) feet, or where the water depth is thirteen (13) feet below the OHWM, whichever is reached first.

   c. Recreational floats shall be designed and intended for swim use or other non-motorized use.

d. Recreational floats shall be fully grated.

e. Retrieval lines shall not float at or near the surface of the water.

f. 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.

g. All float tubs shall be fully encapsulated.

I. Moorage Piles

1. Moorage piles may be permitted as an accessory to residential development, provided:

a. All stand-alone moorage piles shall be placed so as to not constitute a hazard to navigation.

b. No more than two (2) moorage piles per single-family residence are permitted.

c. Moorage piles may be constructed to a maximum eight (8) feet in height above the OHWM.

d. The maximum waterward intrusion of any pile shall be the point where water depth reaches 10 feet as measured from the ordinary high water elevation. In no case may a pile be placed closer than 30 feet or farther than 80 feet from the ordinary high water mark.

e. All piles shall be located within twenty (20) feet of a pier or dock.

J. Mooring Buoys

1. Mooring buoys may be permitted provided:

a. A vessel moored to a new mooring buoy must have, at a minimum, a vessel swing that in all lake conditions will not encroach into a side yard setback or come within 10 feet of adjacent piers. The side yard setback shall be measured from in-water property lines where present. Where in-water property lines are not present, the side yard setback shall be measured by extension of the upland side property lines

b. No more than one (1) mooring buoy is permitted per single-family residence, but no more than two (2) mooring buoys per lot.

c. Mooring buoys shall be placed in water depths of 9 feet or greater based on ordinary high water, but no further than 120 feet waterward of the

OHWM, unless the U.S. Army Corps of Engineers, and the Washington Department of Fish and Wildlife have approved an alternate proposal.

APPENDIX A: ENVIRONMENTALLY SENSITIVE AREAS REGULATIONS IN SHORELINE JURISDICTION

Sections:

10 Purpose.

The provisions of these regulations implement the goals and policies of Washington State Growth Management Act, Washington State Shoreline Management Act, the Lake Forest Park Municipal Code, the Washington State Environmental Policy Act, and the Comprehensive Plan for the City of Lake Forest Park to protect the public health and safety and to protect the natural environment, in particular Lake Washington, but also all sensitive areas within shoreline jurisdiction, including their structures, functions and values.

These regulations are intended to:

A. Protect sensitive areas.

B. Protect unique, fragile and irreplaceable elements of the environment.

C. Protect public and private property from damage due to landslide, seismic hazard, flooding, sedimentation, or erosion;

D. Minimize stormwater runoff.

E. Prevent losses from turbidity and pollution of wetlands and fish-bearing waters such as lakes and streams which are used in the life cycles of anadromous salmon, steelhead, or other species of fish and to maintain wildlife habitat;

F. Achieve a goal of no net loss of wetland function, value, and acreage within each drainage basin.

G. Maintain stream, habitat and riparian corridor functions.

H. Provide the Shoreline Administrator and others with decision making authority with supplemental information for use concerning public or private development or work that affects sensitive areas, including decisions to approve or deny an application or to impose conditions thereon, and for use by the City with respect to determinations under the State Environmental Policy Act, Chapter 43.21C RCW, the Washington Administrative Code provisions, the Shoreline Management Act and this Shoreline Master Program, and city ordinances adopted in conjunction therewith;

20 Sensitive Areas Protected.

Unless expressly authorized herein, any alteration of or work in or development of a sensitive area is prohibited.

30 Applicability.

A. The provisions of these regulations shall apply to development proposals for sites in the city's shoreline jurisdiction on which are located sensitive areas or sensitive area buffers or that are contiguous to sensitive areas or sensitive area buffers.

B. Whenever the Shoreline Administrator determines that a development proposal is in a location regulated by these sensitive areas regulations and protected under section 20, all work shall be performed and all construction completed in compliance with sensitive area review under a shoreline permit issued by the city according to the requirements of these regulations and this Master Program. When the sensitive areas review is affiliated with a shoreline exemption, the exemption and sensitive areas decision shall be Type III decisions and processed according to Chapter 3 of this Shoreline Master Program. When the sensitive areas review is affiliated with a substantial development permit, shoreline conditional use permit, or shoreline variance, the permits and sensitive areas decision shall be Type I decisions and processed

according to Chapter 3 of this Shoreline Master Program.

C. The decision of the city to issue a shoreline permit conditioned by the requirements of these regulations does not relieve the applicant from complying with all other applicable city ordinances and plans. In case of a conflict among ordinances or between these regulations and adopted City plans, the more stringent shall apply.

40 Definitions.

Words and phrases used in these regulations shall have the meaning set forth in this section. Undefined words and phrases that are defined in Chapter 18 LFPMC shall have the meaning ascribed therein unless the context clearly requires otherwise or another code provision is referenced. For purposes of interpretation, the present tense includes the future, the singular form includes the plural, and the plural form includes the singular. "Shall" is mandatory and not discretionary. The words "person" or "applicant" shall include an individual(s), a corporation, partnership or other legal entity. Whenever a specific document or regulation is referenced herein, the reference shall refer to the most recent edition of such document or regulation, unless the context clearly indicates otherwise.

A. "Alteration" means any human activity that results or might result in any impact upon a sensitive area; provided that alteration does not include walking, fishing, or any other passive recreation or other similar activities.

B. "Best management practices"**:** Regularly accepted principles and practices or systems of practices and management measures that are recommended by qualified professional as most likely to:

1. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;
2. Minimize adverse impacts to surface water and ground water flow, circulation patterns, and to the chemical, physical, and biological characteristics of streams and wetlands;
3. Protect trees and vegetation designated to be retained during and following site construction;
4. Protect wildlife habitat; and
5. Protect and enhance sensitive areas and their function and values.

C. "Buffer" means an area contiguous to a sensitive area that is established to protect the sensitive area.

D. "Development proposal" means any proposed activity relating to the use and/or development of land requiring a permit or approval from the city.

E. "Enhancement" means an action which increases the functions and values of a stream, wetland or other sensitive area.

F. "Erosion hazard area" means an area with soil characteristics that, according to the USDA

Soil Conservation Service Soil Classification System, may experience severe to very severe erosion hazard, including slopes greater than 15% with erodible soils that are exposed. Any activity which exposes erodible soils to rainfall or running water will create erosion hazard conditions on slopes greater than 15 percent. Soils which are particularly susceptible to erosion include fill constructed of virtually all soil types, loose sandy native soils such as Vashon recessional outwash (Qvr), Esperance sand (Qe), Vashon Till (weathered Qvt), and the dense fine-grained clay (Qcl). Improper fill methods, especially near flowing water, can produce an erosion hazard in areas not identified as hazard areas.

G. "Landslide" means any episodic downslope movement of a mass including, but not limited to, soil, rock or snow.

H. Landslide Hazard Area.

1. "Landslide hazard area" means a slope that is potentially subject to landslides. All landslide hazard areas are classified as:

a. Class I: a slope that is less than 15 percent and is considered relatively stable;

b. Class II: a slope that is greater than 15 percent and is underlain by permeable soils that are relatively stable in their natural state but may become unstable if slope configurations or draining conditions are modified;

c. Class III: a slope that is greater than 15 percent and is underlain by impermeable soils, and may be characterized by springs or seeping groundwater during the wet season.

2. "Landslide hazard areas" includes Class II and Class III if any of the following are present:

3. a. Any area that has shown movement during the Holocene epoch (from 10,000 years ago to present) or which is underlain by significant waste debris of that epoch; or

b. An area potentially unstable as a result of rapid stream incision, stream bank erosion or undercutting; or

c. Any area located on an alluvial fan or delta potentially subject to inundation by debris flows; or

d. Any area with a slope of 40 percent or greater and with a vertical relief of 10 or more feet except any area composed of consolidated rock.

I. "Light equipment" means non-motorized hand-held tools and construction equipment, such as handsaws, wheelbarrows, and post-hole diggers.

J. "Mitigation," means any of the following actions or combination of actions:

1. Avoiding impacts to environmentally sensitive areas by avoiding actions or parts of actions; or

2. Minimizing impacts by limiting the degree of an action and its implementation by affirmative acts designed to avoid or reduce impacts; or

3. Restoration measures that reduce or eliminate over time the adverse impacts to sensitive area by preservation and maintenance operations; or

3. Compensation for an impact by means of replacement or enhancement of a-sensitive area or providing for substitute resources; or

4. Monitoring the impact and initiating appropriate corrective measures.

K. "Monitoring" means the evaluation of the impacts of development proposals on biologic, hydrologic and geologic systems through the collection and analysis of data over a designated period of time and producing periodic reports for the purpose of understanding and documenting changes in natural ecosystems, functions and features.

L. "Pervious Material" means any material that permits full or partial absorption of stormwater into previously unimproved land.

M. "Priority habitats" means a seasonal range or habitat element with which a priority species has a primary association and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.

N. "Priority species" means those species that are listed in the Washington Department of Wildlife Priority and Habitat Species (PHS) list for Forested and Urban Areas.

O. "Qualified Professional" means a person with experience and training in the pertinent scientific discipline, and who is a qualified scientific expert with expertise appropriate for the relevant sensitive area subject according to WAC 365-195-905(4). A qualified professional must also have obtained a Bachelor of Science or Bachelor of Arts or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology, or related field, with at least three years experience in the related profession, such as botany, wetlands, fisheries, wildlife, soils, ecology, and similar areas of specialization, provided that a qualified professional for:

1. habitat must have a degree from an accredited college or university in biology and professional experience related to the subject species.
2. wetlands must be a certified Professional Wetland Scientist or have, at a minimum: (1) a Bachelor's degree in hydrology, soil science, biology botany, ecology, or related field; and (2) at least two years of full-time work experience as a wetlands professional, including experience in delineating wetlands using the state or federal manuals, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans.
3. a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.
4. wellhead protection areas must be a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments.

P. "Recommended development practices" means guidelines for development in or near sensitive areas as may be utilized by the Shoreline Administrator from time to time.

Q. "Restorations" or "restoration" means the actions or action taken to return a sensitive area to a state in which the stability, functions and values approach the natural state as closely as possible.

R. "Salmonid" means a member of the fish family salmonidae, which include chinook, coho, chum, sockeye, and pink salmon; rainbow, steelhead, and cutthroat trout; brown trout; bull trout, brook and dolly varden, char, kokanee, and white fish.

S. "Seismic hazard areas" means areas underlain by low-strength fill and floodplain deposits with soil and groundwater conditions that are more susceptible to seismic hazards than other areas.

T. "Sensitive areas" means erosion hazard areas, landslide hazard areas, seismic hazard areas, steep-slope hazard areas, streams, wetlands, wellhead protection areas, wildlife habitat conservation areas and flood hazard areas. "Sensitive areas" also means and includes any buffers established by these regulations, or any buffer or setback established by state law or other city ordinance that serve to protect sensitive areas. "Sensitive areas" also means and includes sensitive areas that are located on neighboring lots.

U. "Setback" means the area delineated on a development proposal site permit that separates building structures from sensitive area buffers present on the development site or on neighboring lots, unless otherwise specified in these regulations or this Master Program.

V. "Slope" means an inclined ground surface, the inclination of which is expressed as a ratio (percent) of vertical distance to the horizontal distance, using the formula:

Vertical distance__ x 100 = percent (%) slope
Horizontal distance

A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.

W. "Steep slope hazard areas" means areas not composed of consolidated rock with slope gradients of 40 percent or greater, within a vertical elevation change of at least 10 feet.

1. "Toe of a slope" is a distinct topographic break in slope that separates slopes inclined at less than 40 percent from slopes equal to or in excess of 40 percent. Where no distinct break exists, the toe of a steep slope is the lowermost limit of the area where the ground surface drops 10 feet or more vertically within the horizontal distance of 25 feet.

2 "Top of a slope" is a distinct, topographic break in slope that separates slopes inclined at less than 40 percent from slopes equal to or in excess of 40 percent. Where no distinct break in slope exists, the top of the slope shall be the uppermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet.

X. "Streams" means surface water carried in defined channels or beds, intermittently or perennially, excluding irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial streams, unless used by salmonids or to convey surface water naturally occurring prior to the alteration of the land. A defined channel or bed shall constitute an area which demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds, and defined channel swales. A channel or bed need not contain water year-round, but should show evidence of annual intermittent flow to meet the requirements of this definition. The upstream reach of a stream shall end at the most upstream segment of open water channel flow provided that segments that have been culverted shall continue to be considered streams for the purpose of these regulations. Streams shall be designated as Type 1, Type 2, and Type 3 according to the following criteria.

1. Type 1: Streams that are used at least seasonally by fish for spawning, rearing or migration. Stream that are fish passable from Lake Washington are presumed to be Type 1. Fish passage should be determined by using a qualified professional. Type 1 streams include streams or parts thereof that are waters of the state according to law.

2. Type 2: Streams that are not fish bearing and that do not go dry any time during a year of normal rainfall (perennial streams); provided however, Type 2 streams include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow, provided further that if the uppermost point of perennial flow cannot be identified with simple, non-technical observations then the point of perennial flow should be determined by a qualified professional.

3. Type 3: Streams that are not Type 1 or 2. These are seasonal, non-fish-bearing streams in which surface flow is not present for a significant portion of a year of normal rainfall and that are not located downstream from any Type 2 or higher stream.

Y. "Utilities" means facilities providing services to lots within the city through wires, pipes, or lines provide by a public or private utility. "Utilities" does not include wireless facilities.

Z. "Wellhead Protection Area" means the surface and subsurface area surrounding a water well or wellhead, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellhead.

AA. "Wetlands" means areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands. Wetlands shall be delineated in accordance with the *Washington State Wetland Identification and Delineation Manual* (Department of Ecology Publication #96-94).

Wetlands shall be rated according to the *Washington State Wetland Rating System for Western Washington* (Department of Ecology 2004, or as revised). This document contains the definitions, methods and a rating form for determining the categorization of wetlands below:

1. Category I wetlands are those wetlands of exceptional value in terms of protecting water quality, storing flood and storm water, and/or providing habitat for wildlife.

2. Category II wetlands do not meet the criteria for Category I rating but occur infrequently and have qualities that are difficult to replace if altered.

3. Category III wetlands have important resource value.

4. Category IV wetlands are of limited resource value. They typically have vegetation of similar age and class, lack special habitat features, and/or are isolated or disconnected from other aquatic systems or high quality upland habitats.

BB. "Wetland boundary" means the line delineating the outer edge of a wetland as determined by a qualified professional using the *Washington State Wetland Identification and Delineation Manual* (Department of Ecology Publication #96-94) as required by RCW 36.70A.175.

CC. "Wetland functions" means the natural processes performed by wetlands, including functions that are important in facilitating food chain production, providing sites for nesting, rearing and resting for aquatic, terrestrial and avian species, maintaining the availability and quality of water, acting as recharge and discharge areas for groundwater aquifers and moderating surface and stormwater flows, as well as performing other functions including, but not limited to, those set forth in the U.S. Army Corps of Engineers regulations at 33 C.F.R. Section 320.4(b)(2), 1988.

DD. "Wildlife habitat conservation area" means feeding, breeding and nesting sites for priority, endangered or threatened species, regardless of number. These lands are managed for maintaining species in a wild state in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. Wildlife habitat conservation areas include:

1. Priority habitats with priority species;
2. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;
3. Waters of the state;
4. Lakes, ponds, streams and rivers planted with game fish by a governmental or tribal entity; or
5. State natural area preserves and natural resource conservation areas.

50 Maps and study – Adoption.

A. The approximate location and extent of sensitive areas are shown on the sensitive area maps adopted by the City of Lake Forest Park, as most recently updated. The following sensitive area maps are hereby adopted:

1. City of Lake Forest Park official sensitive area maps known as the "Lake Forest Park Sensitive Areas Mapping Project," completed in December 1991, and updates that are the result of sensitive areas studies by a qualified professional subject to review by the Planning Commission and approval by the Shoreline Administrator. Updates and original plates may be consolidated into a new official map subject to approval of the Shoreline Administrator.
2. Washington Department of Fish and Wildlife Priority Habitat and Species Maps;
3. Maps of wellhead protection areas included in the Lake Forest Park Water District Comprehensive Water System Plan, 2001.

B. These maps are for the guidance of the City of Lake Forest Park, project applicants, and/or property owners. They are a reference and do not provide a final sensitive area designation or delineation.

60 Sensitive area – Authority of Shoreline Administrator - Review process.

A. The Shoreline Administrator is authorized to administer these regulations and to make all decisions required by these regulations unless specifically provided otherwise.

B. The Shoreline Administrator shall perform a review for any shoreline permit application or other request for permission to proceed with an alteration on a site within shoreline jurisdiction to:

1. Determine whether any sensitive area exists on the property and confirm its nature and type;
2. Determine whether a sensitive area study is required and, if so, the nature of that study;
3. Evaluate the sensitive area study;
4. Determine whether any proposed alteration to the sensitive area is necessary; and
5. Determine whether the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the public health, safety and welfare, consistent with the purposes of these regulations and the Shoreline Master Program.

70 Applications – Content – Fee.

A. Whenever the Shoreline Administrator determines that work on or development of a site will affect a sensitive area, an application for a shoreline permit with sensitive areas review shall be filed with the Shoreline Administrator on forms provided by the city.

B. The applicant is responsible for providing and the application shall include information known to the applicant indicating whether the subject property is located in, adjacent to, contains, or has characteristics of an environmentally sensitive area as defined in these regulations or other adopted ordinances. The applicant responsibility includes informing the Shoreline Administrator of the discovery of sensitive areas during the development process that had not been earlier discovered or disclosed.

C. An application shall not be complete until:

1. The applicant has submitted a study prepared by a qualified professional that identifies and assesses any sensitive areas and buffers located on or adjacent to the proposed development site, the potential impacts to the sensitive areas; provided, however, that the Shoreline Administrator may waive the requirement for a study whenever the Shoreline Administrator determines that sufficient information is otherwise available to decide upon the application consistent with the requirements of these regulations, the city's Shoreline Master Program, the city's comprehensive plan, and city ordinances; and
2. The applicant has executed a hold harmless and release agreement in a form approved by the city releasing the city from liability for any damage arising from the location of improvements within the sensitive area or sensitive area buffer; and
3. The applicant has agreed that should applicant fail to perform mitigation and monitoring as required the city may enter onto the property for the purpose of mitigation and monitoring as required by city shoreline permit at the applicant's expense.
4. The applicant has paid the fee established by the city council. An applicant shall be responsible for all costs associated with the employment of qualified professionals and any review conducted by city employees or city retained consultants. The Shoreline Administrator

may require a deposit to pay for city expenses related to the application as a condition of approval.

80 Applications – Approval – Permits – General Condition.

A. In accordance with the provisions of these regulations and this Master Program, all activities within sensitive areas which would normally require a sensitive area permit would require sensitive areas review under the appropriate shoreline permit. Under the sensitive areas review, the Shoreline Administrator may approve, deny, or approve with conditions any application. The Shoreline Administrator's decision shall be in a writing that sets forth the basis of the decision and cites the relevant code provision. Sensitive area review shall be of two types:

1. A Major Sensitive Area Review shall be required for all activities subject to these regulations, except as provided in subsection 2.
2. A Minor Sensitive Area Review shall be required for all activities performed only by light equipment.

B. All work within sensitive areas authorized by a shoreline permit shall be conducted using the best management practices that result in the least amount of impact to the sensitive areas, including for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and regulation of chemical applications. The City may observe the use of best management practices as necessary to ensure that the activity does not result in degradation to the sensitive area. Any damage to, or alteration of, a sensitive area shall be restored, rehabilitated, or replaced as determined by the Shoreline Administrator at the responsible party's expense.

90 Applications – Approval – Criteria – Revocation.

A. The Shoreline Administrator shall make final sensitive area determinations and issue sensitive area review comments according to the requirements of these regulations, best available science, and sensitive area studies prepared by qualified professionals. The Shoreline Administrator review comments shall be incorporated into the appropriate shoreline permit (exemption, substantial development, conditional use, or variance).

B. The Shoreline Administrator is authorized to conduct review of the sensitive area study submitted by the applicant using a qualified professional to verify the studies' findings, conclusions and recommendations. Before initiating a professional review, the city shall inform the applicant of the review and anticipated expense.

C. When reviewing an application, the Shoreline Administrator may consider any recommended development practices that may be used in conjunction with the adopted sensitive areas map and study. Recommended development practices may serve as a guideline for interpretation of both the study and sensitive areas map.

D. A shoreline permit that is issued on the basis of false information provided by the applicant is void and the holder of such permit shall have no rights thereunder.

100 Sensitive area – Special study requirement.

A. An applicant for a development proposal on a site determined by the Shoreline Administrator to be subject to the requirements of these regulations and this Master Program shall submit a sensitive area study that in the judgment of the Shoreline Administrator adequately evaluates the proposal and all probable impacts to the satisfaction of the Shoreline Administrator.

B. The Shoreline Administrator may require information from the applicant in addition to the sensitive area study, as necessary to ensure compliance with these regulations and this Master Program.

110 Contents of sensitive areas study.

A. Sensitive area studies shall be in writing and:

1. Identify and characterize sensitive area as a part of a larger development proposal site;
2. Assess hazards posed by the development proposal to any sensitive areas or sensitive area buffers on or adjacent to the proposed site;
3. Propose adequate mitigation, maintenance, monitoring and contingency plans and bonding measures, if necessary;
4. Provide a scale map of the development proposal site;
5. Provide detailed studies, as required.

B. Sensitive area studies shall incorporate the best available science.

C. An applicant for a development proposal adjacent to or within a geologically hazardous area shall submit a geotechnical report conducted by a qualified professional which clearly evaluates 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.

D. The Shoreline Administrator may permit a sensitive area study to incorporate studies required by other laws and regulations or other sensitive area studies performed under these regulations.

120 Mitigation and monitoring.

A. The Shoreline Administrator may require such mitigation as may be indicated as beneficial by the sensitive area study.

B. Mitigation of sensitive area impacts shall be conducted according to an approved mitigation plan that shall describe the existing functions and values of the affected sensitive areas, the nature and extent of impacts to those areas, proposed mitigation measures to offset those impacts. The mitigation plan shall also contain a drawing that illustrates the compensatory mitigation elements. The plan and/or drawing shall list plant materials and other habitat features to be installed.

C. The applicant shall submit a monitoring and maintenance program prepared by a

qualified professional that shall, at a minimum include the following:

1. The goals and objectives for the mitigation plan;
2. The criteria for assessing the mitigation;
3. A monitoring plan that includes annual site visits by a qualified professional, with annual progress reports submitted to the Shoreline Administrator and that lasts for a period sufficient to establish that performance standards have been met as determined by the Shoreline Administrator, but no less than five years;
4. A contingency plan; and
5. A signed copy of the written contract with a qualified professional who will perform the monitoring program. The contract shall incorporate the terms of the required monitoring program.

D. Whenever the Shoreline Administrator determines that monitoring has established a significant adverse deviation from predicted impacts, or that mitigation or maintenance measures have failed, the applicant or the property owner shall be required to institute correction action, which shall also be subject to further monitoring as provided in this section.

E. All costs associated with the mitigation/monitoring and planning therefore, including city expenses, shall be the responsibility of the applicant.

130 Mitigation sequencing.

Applicants shall demonstrate that all reasonable efforts to avoid and minimize impacts to sensitive areas and buffers have been examined and that impacts have been avoided, minimized, or compensated for in the following order of preference:

A. Minimizing impacts by limiting the degree or magnitude of the action by using appropriate technology, or by taking affirmative steps to avoid or reduce the impact;

B. Rectifying the impact by repairing, rehabilitating, or restoring the affected sensitive area(s) and/or buffer(s);

C. Reducing or eliminating the impact or hazard over time through preservation and/or maintenance operations;

D. Compensating for the impact by replacing, enhancing, or providing substitute sensitive areas and/or buffers; and

E. Monitoring the impact and/or hazard and making appropriate corrective measures when necessary.

140 Timing.

A. All work approved or mitigation required by a sensitive areas review shall be completed prior to the final inspection and occupancy of a project, or sooner as prescribed by the Shoreline Administrator.

B. Failure to complete such action within the required time limit or any approved extension thereof shall render the shoreline permit void, the project shall be subject to abatement, and the applicant shall be subject to sanctions as provided herein.

C. Upon showing of good cause, the Shoreline Administrator may extend the completion period.

150 Bond requirements.

A. The Shoreline Administrator may require a performance bond(s) 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 years. The Shoreline Administrator shall establish the conditions of the bond or other security according to the nature of the proposed mitigation, maintenance or monitoring and the likelihood and expense of correcting mitigation or maintenance failures.

B. Performance and maintenance/monitoring bonds or other security shall also be required for restoration of a sensitive area or buffer not performed as part of a mitigation or maintenance plan, except that no bond shall be required for minor stream restorations carried out in compliance with applicable ordinances. The bond or other security shall be in a form and amount deemed acceptable by the Shoreline Administrator.

C. Posting of a bond or other security shall not discharge the obligation of an applicant or violator to complete required mitigation, monitoring or restoration. The requirement of a bond or other security is not intended and shall not be construed to relieve an applicant of any obligation imposed under these regulations of this Master Program.

160 Vegetation management plan.

A. Whenever the Shoreline Administrator determines that preservation of existing vegetation is required, a vegetation management plan prepared by a qualified professional shall be approved by the Shoreline Administrator before permit approval.

B. The vegetation plan shall identify the proposed clearing limits for the project and any areas where the sensitive area or buffer is proposed to be disturbed.

C. Clearing limits will be marked in a prominent and durable manner. Proposed methods of field marking shall be approved by the Shoreline Administrator and remain in place and visible until final project approval is granted.

D. The vegetation plan may be incorporated into a temporary erosion and sediment control plan (TESCP) or landscaping plan where either of these measures are required by the city or other laws.

170 Sensitive areas – Markers and signs.

A. Before work commences, the applicant shall mark the property with permanent survey markings, and stakes delineating the boundary between sensitive areas and adjoining areas shall be set, as established by current survey standards.

B. Temporary survey markings shall be highly visible and shall remain in place until the Shoreline Administrator authorizes their removal at the completion of the work.

C. The Shoreline Administrator may require fencing when needed to best protect the sensitive area.

D. The boundary between a sensitive area and adjoining land shall be identified with permanent signs.

190 Notice to title.

A. A condition of a shoreline permit with major sensitive area review shall be a requirement that the property owner shall record a notice that the property is subject to regulation under these regulations.

B. The Shoreline Administrator may require that as a condition of approval of any development proposal or shoreline permit with minor sensitive area review a notice on title be filed putting on record that the property is subject to regulation under these regulations.

C. Notice on title shall include any requirement for mitigation and monitoring imposed as a condition of a shoreline permit with sensitive areas review.

210 Sensitive areas rules.

The Mayor shall adopt such administrative rules and regulations, including recommended development practices, deemed necessary to implement these regulations, provided they are consistent with the SMA and this Master Program, and are approved by Washington Department of Ecology.

270 Development Standards – Shoreline Permit with Sensitive Area Review

Work or development authorized by a shoreline permit with sensitive areas review shall be subject to the development standards of these regulations and this Master Program.

280 Erosion hazard areas – Development standards – Permitted alterations.

A. Clearing is allowed between April 1 and September 30.

B. Development proposals shall include a temporary erosion control plan approved by the Shoreline Administrator.

C. Clearing of roads and utilities shall remain within construction limits, which must be marked in the field prior to the beginning of any site work.

D. Clearing of roads and utilities shall be the minimum necessary to accomplish project specific designs and shall remain within approved rights-of-way.

E. Clearing of trees, as permitted by the Lake Forest Park Municipal Code, may occur in conjunction with clearing for roadways and utilities.

F. Only that clearing necessary to install temporary sedimentation and erosion control measures shall occur before clearing of roadways or utilities.

G. All trees and understory shall be retained on lots or parcels during clearing for roadways and utilities; provided, that understory damaged during approved clearing operations may be pruned.

H. Retained trees, understory and stumps may be cleared only if such action is a necessary element of any site plan approval.

I. Erosion control measures including but not limited to hydroseeding shall be required.

J. All development proposals shall include an erosion control plan consistent with these regulations and other adopted requirements prior to plan approval.

K. Whenever, in the judgment of the Shoreline Administrator, erosion from a development site poses a risk of damage to downstream receiving waters, the applicant shall be required to provide regular monitoring of surface water discharge from the site. If the project does not meet

water quality standards established by other applicable code or rules, the city may suspend further development work until the project meets such standards.

L. The use of pesticides, herbicides, fertilizers and hazardous substances in erosion hazard areas shall be prohibited unless demonstrated to the satisfaction of the Shoreline Administrator that special circumstances require their use.

290 Landslide hazard areas –Development standards – Permitted alterations.

A. A minimum buffer of 50 feet shall be established from all edges of the landslide hazard area. Buffer widths shall be extended or adjusted as needed to mitigate a steep slope or erosion hazard or to promote the health and safety of the public. The buffer may be reduced to a minimum of twenty-five (25) feet when a qualified professional demonstrates to the Shoreline Administrator's satisfaction that the reduction will adequately protect the proposed development, adjacent developments, and uses and the landslide hazard area.

B. Unless permitted by a shoreline permit with sensitive area review, vegetation may not be removed from a landslide hazard area or buffer except as required for surveying purposes.

C. Vegetation that has been damaged by any activity or invaded by noxious weeds or nonnative vegetation may be replaced within a landslide hazard area with approved native vegetation or non-native plants as may be approved by the City as part of an approved enhancement plan. The use of pesticides, herbicides, fertilizers and hazardous substances in landslide hazard areas shall be prohibited unless demonstrated to the satisfaction of the Shoreline Administrator that special circumstances require their use.

D. Permitted alterations to landslide hazard areas and buffers are allowed only as follows:

1. Landslide hazard areas located on a slope of 40 percent or steeper may only be altered if the alteration meets the standards and limitations established for steep slope hazard areas;

2. Alteration of landslide hazard areas located on slopes of less than 40 percent are permitted only under the following conditions or circumstances:

a. The development proposal will not decrease slope stability on the site or on adjoining properties; and

b. A licensed geologist or geotechnical engineer certifies that the landslide hazard area can be safely modified or the development proposal designed so the landslide hazard risk to the property or adjacent property is eliminated or mitigated;

c. The alteration will not adversely impact other sensitive areas, such as streams; and

d. The alteration will not result in an increase in peak surface water flows or sedimentation to adjacent properties;

3. Where such alterations are approved, buffers may not be required.

300 Seismic hazard areas –Development standards – Permitted alterations.

Development proposals for developments other than single family residence may require review standards of critical facilities based on larger earthquake recurrence intervals and implementation of measures to mitigate the risk are implemented that meet accepted engineering standards for safety.

310 Steep slope hazard areas –Development standards – Permitted alterations.

A. Buffer Width Requirements.

A minimum buffer shall be established at a horizontal distance of 50 feet from the top, toe and along all sides of any slope 40 percent or greater. The buffer may be reduced to a minimum of twenty-five (25) feet when a qualified professional demonstrates to the Shoreline Administrator's satisfaction that the reduction will adequately protect the proposed development, adjacent developments, and uses and the steep slope hazard area.

1. Removal of existing vegetation from a steep slope hazard area or buffer is prohibited unless otherwise provided for in an approved alteration plan. Limited removal for surveying purposes is permitted;

2. All buildings and structures shall have a minimum setback of 15 feet from the edge of the slope buffer. The 15-foot setback shall be measured at an angle that is perpendicular to the edge of the slope buffer.

B. Alterations to steep slopes and buffers will be permitted only as follows:

1. An approved surface water conveyance may be allowed on steep slopes if in the judgment of the Shoreline Administrator it can be installed in a manner to minimize disturbance to the slope and vegetation;

2. Approval of public and private trails may be allowed on steep slopes subject to compliance with recognized construction and maintenance standards. Construction of impervious surfaces, such as asphalt and concrete, that would contribute to surface water runoff is prohibited unless the applicant demonstrates to the satisfaction of the Shoreline Administrator such action is necessary for soil stabilization or prevention of soil erosion;

3. Utility corridors on steep slope hazard areas may be permitted if a study performed by a qualified professional establishes to the satisfaction of the Shoreline Administrator that the risk of landslide or erosion will not increase;

4. Limited trimming, limbing and pruning may be allowed on steep slopes for the creation and maintenance of views based on an approved vegetation management plan if soils are not disturbed and applicable administrative rules are followed.

C. The following may be permitted:

1. Alteration of slopes that are 40 percent or steeper with a vertical elevation change of up to 20 feet, provided that, a soils report prepared by a qualified professional satisfies the Shoreline Administrator that no adverse impact will result from the exception;

2. Any slope that was created through legal grading activity may be regraded as part of an approved development plan; provided that, any slope that remains 40 percent or steeper following site development shall be subject to all requirements for steep slopes.

D. When steep slope alterations are allowed by this section, the proposal shall:

1. not decrease slope stability on the site or on adjoining properties; and
2. be subject to certification by a qualified professional that the landslide hazard area can be modified safely or that the development proposal eliminates or mitigates the landslide hazard risk to the property or adjacent property.
3. not adversely impact other sensitive areas, such as streams; and
4. not result in an increase in peak surface water flows or sedimentation to adjacent properties;

320 Wetlands – Development standards.

A. Wetland buffers, measured from the outer edge of the wetland boundary, are established as follows:

WETLAND CATEGORY AND CHARACTERISTICS	BUFFER
Category I	
Natural Heritage Wetlands	215 feet
Bog	215 feet
Estuarine	175 feet
Coastal Lagoon	175 feet
Habitat score from 29 to 36 points	225 feet
Habitat score from 20 to 28 points	150 feet
Other Category I wetlands	125 feet
Category II	
Estuarine	135 feet
Habitat score from 29 to 36 points	200 feet
Habitat score from 20 to 28 points	125 feet
Other Category II wetlands	100 feet
Category III	
Habitat score from 20 to 28 points	125 feet
Other Category III wetlands	75 feet
Category IV	50 feet

Note: Wetlands shall be rated according to the *Washington State Wetland Rating System for Western Washington* (Department of Ecology 2004, or as revised).

B. Except as otherwise permitted herein alteration of any wetland buffer is prohibited.

C. Wetlands within 25 feet of the toe of a slope 30 percent or steeper, but less than 40 percent, shall have the following buffers:

1. Where the horizontal length of the slope including small benches and terraces is within the buffer for the wetland class, the buffer width shall be the greater of:
   a. The minimum standard for that wetland class,
   b. Twenty-five feet beyond the top of the slope.
2. Where the horizontal length of the slope extends beyond the standard buffer for that wetland class, the buffer shall extend to a point 25 feet beyond the standard buffer for that wetland class.

D. Buffer width averaging may be allowed only where the applicant demonstrates to the satisfaction of the Shoreline Administrator:

1. That the wetland contains variations in sensitivity because of to existing physical characteristics; and
2. That low-intensity land uses would be located adjacent to areas where buffer width is reduced and that such low-intensity land uses are guaranteed in perpetuity by covenant deed restriction, easement or other legally binding mechanism; and
3. That buffer width averaging will not adversely impact the wetland's functional values; and

4. The buffer averaging provides additional protection; and

5. That the total area contained in the buffer on the development proposal site does not decrease, and the buffer is not reduced in any one location to less than the minimum buffer specified in Section 320A above.

E. The Shoreline Administrator may reduce an applicable wetland buffer to not less than 75% of the standard width after application of standard mitigation sequencing as follows:

1. In accordance with an approved sensitive area study, mitigation plan, and the best available science, provided that a smaller area is adequate to protect the wetland functions based on site-specific characteristics and the proposal will result in a net improvement of wetland and buffer functions.

2. A plan for mitigating buffer-reduction impacts must be prepared that incorporates from the list below incentive-based mitigation to achieve a buffer no less than the minimum buffer listed in Section 320A. Whenever the reduced buffer area is degraded, the buffer reduction plan shall provide for revegetation of the degraded area with native plants or other non-native plants as may be approved by the City and shall provide for a five (5) year monitoring and maintenance plan. Mitigation options include:

a. Removal of impervious surfaces.

b. Installation of biofiltration/infiltration mechanisms outside of the reduced buffer, such as the installation of bioswales, created and/or enhanced wetlands, or ponds.

c. Removal of invasive, non-native vegetation subject to monitoring (minimum of 5 years) and continued-removal maintenance of relatively dense stands of invasive, non-native vegetation from significant portions of the remaining buffer area in conjunction with dense planting of native trees and shrubs or other non-native plants as may be approved by the City.

d. If not already required under an existing development proposal, installation of oil/water separators for storm water quality control.

e. Use of pervious material for driveway/road construction.

f. Construction of roofs for on-site buildings built in accordance with the standards of the LEED Green Building Rating System.

g. Removal of significant refuse or sources of toxic material.

h. Revegetation enhancement of degraded buffer outside of the reduced buffer area if the remaining buffer beyond the enhanced buffer reduction area is degraded and a substantial portion of this degraded area is enhanced through revegetation with native plants or other non-native plants as may be approved by the City subject to a five (5) year monitoring and maintenance plan.

F. Increased buffer widths shall be required when necessary to protect wetlands. The criteria used to determine increased buffer widths shall include:

1. The presence of critical drainage areas;
2. Location of hazardous materials;
3. The presence of critical fish and wildlife habitat;
4. The presence of landslide or erosion hazard areas adjacent to wetlands;
5. The presence of groundwater recharge and discharge;
6. The location of trail or utility corridors; and
7. Such other factors as may adopted by administrative rule.

G. All buildings or other structures shall have a minimum setback of at least 15 feet from any place on the edge of a wetland buffer. The setback line shall be established by measuring

perpendicularly from the edge of a wetland buffer.

H. The use of hazardous substances, pesticides or fertilizers in the wetland its buffer, or in its setback shall be prohibited unless demonstrated to the satisfaction of the Shoreline Administrator that special circumstances require their use.

330 Wetlands – Permitted alterations.

A. Exceptions to the wetlands requirements may be allowed only if it is determined by the Shoreline Administrator that the development site proposal will enhance or protect the wildlife habitat, natural drainage or other functions and will be consistent with the purposes of these regulations and this Master Program.

1. The applicant shall submit a report prepared by a qualified professional. The report shall assess the habitat, water quality, storm water detention, ground water recharge, and erosion protection functions of the buffer; assess the effects of the proposed modification on those functions, and address other criteria listed in this subsection. The report shall include specific recommendations for mitigation including, but not limited to, construction techniques or design, drainage or density specifications.

2. If a wetland is located in a flood hazard area, the applicant shall notify in writing the affected parties and the appropriate responsible officials of the proposed alterations before undertaking any alteration.

3. Introduction of nonnative plant material or wildlife into any wetland or buffer is prohibited unless authorized by a city-approved non-native plant list or a state or federal permit or approval.

B. Sewer utility corridors may be allowed in wetland buffers only if:

1. The applicant demonstrates that there are no feasible alternatives;

2. The corridor is not located in a wetland or buffer that is used by species listed as endangered, threatened or priority by the state or federal government or that contains critical or outstanding actual habitat for those or rookeries or raptor nesting sites;

3. The corridor alignment including, but not limited to, any allowed maintenance roads follows a path beyond a distance equal to 75 percent of the standard buffer width from the wetland edge;

4. Any corridor construction or maintenance protects the wetland and buffer, the corridor is aligned to avoid cutting trees greater than 12 inches in diameter when possible, and use of pesticides, fertilizers, or herbicides is consistent with best management practices to avoid wetland and habitat impacts;

5. Provision is made for an additional contiguous buffer of equal width to the proposed corridor, including any maintenance roads to protect the wetland;

6. The corridor is revegetated with native vegetation to a state equal to or greater than preconstruction densities immediately upon completion of construction or as soon as possible. Maintenance and monitoring provisions for the revegetation will be a part of any revegetation plan;

7. Additional access for maintenance shall be limited to specific points rather than via parallel road; and

8. The width of any necessary parallel road providing maintenance access is as narrow as possible, not to exceed 15 feet, and maintenance is carried out in accordance with wetland

management standards.

C. Joint use of an approved sewer utility corridor by other utilities shall be encouraged.

D. Surface water management activities and facilities may be allowed in wetland buffers only as follows:

1. Surface water may discharge to a wetland from a detention facility, pre-settlement pond or other surface water management activity or facility; provided that the discharge does not increase the rate of flow, change the plant composition or decrease the water quality of the wetland;
2. A Category 2 or 3 wetland or buffer may be used for a regional detention/retention facility only when:
    a. The rating or factors used in rating the wetlands will not alter the use,
    b. There are no adverse impacts to the wetland;
3. A Category 3 wetland or buffer with the major function of water storage may be used as a regional retention/detention facility; provided that presettlement ponds are required and all other applicable standards are met and:
    a. No other practical alternative exists, and
    b. The functions of the buffer or wetland are not adversely affected.

E. Wetlands shall not be used for retention/detention facilities other than for regional facilities as provided for in this section.

F. Alterations to isolated wetlands will be permitted only pursuant to an approved mitigation plan.

G. Wetland crossings may be allowed; provided that the Shoreline Administrator determines that:

1. No possible alternative exists;
2. All crossings minimize impact to the wetland and provide mitigation for unavoidable impacts through restoration, enhancement or replacement of disturbed areas;
3. The overall wetland hydrology is not changed;
4. Important habitat functions are not disturbed;
5. Construction is scheduled during periods of low water tables, generally during the drier summer months.

340 Wetlands – Mitigation requirements.

A. Mitigation shall be conducted pursuant to Sections 100-130.

B. Restoration shall be required when a wetland or its buffer is altered in violation of these regulations or other applicable standards. To the extent practicable and applicable, restoration will conform to the following minimum requirements:

1. The original wetland shape and form shall be replicated, including its depth, width, length and gradients at the original location;
2. The original soil types and configuration should be restored;
3. The wetland edge and buffer configuration shall be restored to original condition;
4. The wetland edge and buffer shall be replanted with native vegetation which recreates the original in species, sizes and densities; and
5. The original wetland functions shall be restored, including but not limited to hydrologic and biologic functions.

C. The requirements of subsection A of this section may be modified if it is demonstrated that greater wetlands functions can be obtained otherwise.

D. Replacement shall be required when a buffer is altered pursuant to an approved development proposal or a wetland is used for a regional retention/detention facility or other approved use. The minimum standards required for the restoration of a wetland listed under Section 340B shall be followed.

E. Enhancement may be allowed when a wetland or buffer will be altered pursuant to a development proposal, but the wetlands water quality or wildlife habitat functions will be improved. Minimum requirements for enhancement shall be established in administrative rules.

F. Surface water management or flood control alterations shall not constitute replacement or enhancement unless other functions are simultaneously improved.

G. Replacement or enhancement for approved wetland alterations shall meet the following minimum requirements:

1. The proposal meets the mitigation ratios specified in: Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10. March 2006. Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance (Version 1). Washington State Department of Ecology Publication #06-06-011a. Olympia, WA. (Table 1a, page 73). Mitigation shall result in equal or greater biological values including habitat and hydrological values, including storage capacity;

2. Replacement or enhancement off the site may be allowed, provided that ~~if~~ the applicant demonstrates that the off-site location is in the same drainage subbasin as the original wetland, that water quality or wildlife habitat functions will be increased, or that the appropriate mitigation credits are purchased from an approved mitigation bank. The formulas and requirements of subsection (G)(1) of this section will apply.

H. Monitoring shall be required in accordance with Section 120.

350 Streams – Development standards.

A. Stream buffers measured from the ordinary high water mark, if such can be identified, otherwise from the top of the bank are established as follows:

Stream Type	Standard Buffer Width (feet)	Minimum Buffer Width with Enhancement (ft)
Type 1	115	70
Type 2	50	35
Type 3	35	25

B. Except as otherwise permitted herein, alteration of any stream buffer is prohibited.

C. Any stream restored, relocated, replaced or enhanced because of stream alteration shall have the standard required buffer.

D. Any stream with an ordinary high water mark within 25 feet of the toe of a slope 30 percent or steeper shall have a buffer equal to the greater of:

1. The standard stream buffer; or
2. A buffer 25 feet beyond the top of the slope, provided that a stream buffer shall not be required to be greater than 25 feet beyond the standard stream buffer if the horizontal length of the slope including benches and terraces extends beyond the buffer.

E. Any stream abutted by riparian wetlands or other contiguous sensitive areas shall have the largest buffer required.

F. Buffer Width Averaging. Buffer width averaging may be allowed if it is demonstrated to the satisfaction of the Shoreline Administrator that averaging will provide additional protection, provided the total area contained in the buffer on the development proposal site does not decrease, and the buffer is not reduced in any one location to less than the minimum buffer listed above.

G. Reduction of stream buffer widths.

1. The Shoreline Administrator may reduce the standard buffer to no less than the minimum buffer allowed by Section 350A, whenever, in the judgment of the Shoreline Administrator, a smaller width is adequate to protect the stream and habitat functions and the development proposal will result in a net improvement of stream and buffer functions.
2. The Shoreline Administrator's decision shall be based upon a sensitive area study. If the Shoreline Administrator determines that mitigation is necessary, such mitigation shall be performed in accordance with Section 120-130.
3. In addition, a plan for mitigating buffer-reduction impacts must be prepared that incorporates from the list below incentive-based mitigation options to achieve a buffer no less than the minimum buffer listed above. Whenever the reduced buffer area is degraded, the buffer reduction plan shall provide for revegetation of the degraded area with native plants and shall provide for a five (5) year monitoring and maintenance plan. Mitigation options include:
    a. Removal of impervious surfaces.
    b. Installation of biofiltration/infiltration mechanisms, such as the installation of bioswales, created and/or enhanced wetlands, or ponds supplemental to existing storm drainage and water quality requirements.
    c. Removal of invasive, non-native vegetation subject to a monitoring (minimum of 5 years) and continued-removal maintenance of relatively dense stands of invasive, non-native vegetation from significant portions of the remaining buffer area in conjunction with dense planting of native trees and shrubs.
    d. In-stream habitat enhancement, such as log structure placement, bioengineered bank stabilization, culvert removal or replacement, improving fish passage and/or creation of side channel or backwater areas.
    e. If not already required under an existing development proposal, installation of oil/water separators for storm water quality control.
    f. Use of pervious material for driveway/road construction.
    g. Construction of roofs for on site buildings in accordance with the standards of the LEED Green Building Rating System.
    h. Removal of significant refuse or sources of toxic material.
    i. Revegetation enhancement of degraded buffer outside of the reduced buffer area if the remaining buffer beyond the enhanced buffer reduction area is degraded and a substantial portion of this degraded area is enhanced through revegetation with native plants and subject to a five (5) year monitoring and maintenance plan.

H. Increased buffer widths will be required whenever in the judgment of the Shoreline Administrator an increase is necessary to protect streams. Provisions for additional buffer widths will be set forth in administrative rules and will include, but not be limited to, critical drainage areas, location of hazardous substances, fish and wildlife habitat, contiguous landslide or erosion hazard areas, groundwater recharge and discharge and location of trail or utility corridors.

J. The Shoreline Administrator may prohibit the use of herbicides, fertilizers, and pesticides in stream corridors or buffers unless it is demonstrated that special circumstances require their use and they are used in accordance with best management practices to avoid adverse habitat and wetland impacts.

K. Section 320H applies to streams and their buffers.

L. Compliance with these regulations shall be in addition to, and not a fulfillment of, all requirements under Chapter 90.58 RCW, the Shoreline Management Act and this Master Program, and any development proposal shall, in addition to the requirements of these regulations, comply with the permitting and substantive requirements of Chapter 90.58 RCW, the Shoreline Management Act and this Master Program.

M. All buildings or structures shall have a setback of at least 15 feet from any place on the edge of a stream buffer. The setback line shall be established by measuring perpendicularly from the edge of a stream buffer.

360 Streams – Permitted alterations.

Alterations to streams and buffers may be allowed only as follows:

A. In accordance with a sensitive area study.

B. If a stream is located in a flood hazard area, the applicant shall notify affected parties in writing, as well as the appropriate responsible officials, of proposed alterations prior to any alteration.

C. Introduction of nonnative plant material or wildlife into any stream or buffer is prohibited unless authorized by a city-approved non-native plant list or a state or federal permit or approval.

D. Section 330B applies to streams and their buffers.

E. Joint use of an approved sewer utility corridor by other utilities shall be encouraged.

F. Surface water discharge to a stream from a detention facility, pre-settlement pond or other surface water management activity or facility may be allowed in a stream buffer if the discharge does not increase the rate of flow, or decrease the water quality of the stream.

G. Stream crossings may be allowed if:

1. All crossings minimize impact to the stream and provide mitigation according to Section 120;

2. All road crossings use bridges or other construction techniques which do not disturb the stream bank or bed;

3. All crossings are constructed during the low summer flow and are scheduled to avoid disturbances during critical salmonid use periods;

4. Crossings do not decrease the flood-carrying capacity of the stream;

5. Crossings are minimized and serve multiple purposes whenever possible or no other possible crossing site exists; and

6. Underground utility crossings are laterally drilled and located below the maximum depth of scour for the base flood, as determined by a qualified professional.

H. Stream relocations may be allowed only for the purpose of enhancing resources in the stream if:

a. Appropriate floodplain protection measures are used, and

b. The relocation occurs on-site, except that relocation off-site may be allowed if no practical on-site location exists, the applicant provides necessary easements and waivers from affected property owners and the off-site location is in the same drainage subbasin as the original stream.

I. Based on information provided by a civil engineer and biologist, approved relocations must demonstrate to the satisfaction of the Shoreline Administrator the following:

1. Equivalent base-flood storage volume and function will be enhanced;
2. There will be no adverse impact to local groundwater;
3. There will be no increase in velocity;
4. There will be no interbasin exchange of water;
5. There will be no increased sediment load;
6. Requirements of a mitigation plan are met; and

J. A stream channel may be stabilized if:

1. Movement of the stream channel threatens existing improvements, natural resources or the sole access to property; and
2. The stabilization is done in compliance with the following requirements.
    a. Development in floodplains.
        1) Development in areas where the 100-year floodplain has been established by a comprehensive drainage plan (Lyon and McAleer basins studies or the sensitive areas ordinance/maps or as may be further defined by any future comprehensive drainage plan adopted by the city), or where the city engineer has determined that drainage or erosion conditions present an imminent potential of harm to the welfare and safety of the surrounding community, shall meet special drainage conditions set by the city. Conditions may include the limitation of the volume of discharge from the developed property to the predevelopment levels, preservation of wetlands or other natural drainage features, or other controls necessary to protect against a community hazard.
        2) Due to the detrimental effect on upstream and downstream properties, no filling, grading or construction shall take place within the established floodplains where an equal amount of displaced floodwater storage has not been provided elsewhere. The developer must provide information, plans and calculations to satisfy the city engineer that development within the floodplains is not detrimental by increasing the flooding occurring upstream or downstream from the site.
    b. The performance standards are set as the minimum level of compliance.
    c. Water quality.
        1) The storm and surface waters discharging from an individual property or project shall be of such quality as meet Class A water quality standards of the state of Washington (Chapter 173-201 WAC) herein adopted as part of this chapter by reference or the quality of the receiving water, whichever is higher. No activity shall introduce into the drainage waters any liquid or

solid foreign substances of biodegradable or other nature which shall cause the water quality in the receiving water to violate applicable state standards. Products of erosion shall be prevented from entering the natural drainage system at all times, during both the construction on the property and the subsequent operation of the facilities provided. All trash and debris shall be prohibited from entering the drainage system at any point within the property.

2) It shall be prohibited and in violation of these sensitive areas regulations for any person to:
   a) Cause or permit litter, trash, rubbish or debris to enter the drainage system of the city;
   b) Cause or permit liquid or water-carried pollutants to enter the drainage system of the city including but not limited to oils and petroleum products, paints and paint thinners, pesticides, fertilizers, soaps, detergents and washing wastes;
   c) Cause or permit horses, cattle or other domestic livestock to enter any watercourses or wetlands that are part of the drainage system of the city. Stables, pastures and other animal enclosures shall be drained so as to prevent polluted drainage waters from entering the drainage system of the city;
   d) Cause or permit grading, clearing, filling or other land surface changes to take place in such a way as to allow drainage from the property to carry any suspended or dissolved matter into the drainage system of the city;
   e) Cause or permit to take place in the streams, watercourses or wetlands that are part of the drainage system any work that would result in the transmission of silt, pollutants, or other, foreign substances from one part of the system to another;
   f) Discharge any waters that would, in any way, alter the temperature of the nearest receiving waters.

K. Stream enhancement not part of any other development proposal may be permitted if the enhancement is carried out using a plan addressing design, implementation, maintenance and monitoring and prepared by a civil engineer and biologist.

L. A minor stream restoration project for fish habitat enhancement may be allowed if:

1. The restoration is completed by an authorized public agency;
2. The restoration plan is unassociated with mitigation of a specific development project;
3. The restoration is limited to specific salmonid habitat improvements as determined by appropriate public agencies; and
4. Disturbance to the area being restored is limited.

M. Restoring piped streams.

1. The city encourages the opening of previously channelized/culverted streams and the rehabilitation and restoration of streams.
2. When piped stream sections are restored, the minimum buffers listed in Section 350 shall apply.
3. Modifications to the stream and buffer area to be restored shall include habitat improvements and measures to prevent erosion, landslide and water quality

impacts. Opened channels shall be designed to support fish access, unless determined to be unfeasible by the Shoreline Administrator.

4. Removal of pipes conveying streams shall only occur when the Shoreline Administrator determines that the proposal will result in a net improvement of ecological functions and will not significantly increase the threat of on-site or off-site erosion, flooding, slope stability or other hazards.

N. All projects involving perennial streams shall make adequate accommodation for fish passage, as approved by Washington State Department of Fish and Game. No obstructions shall be placed within the stream that would prohibit the free passage of fish under all flow conditions.

370 Streams – Mitigation requirements.

A. Restoration may be required as a condition of a shoreline permit with sensitive area review and shall be required when a stream or its buffer is altered in violation of these regulations or when done without permission. A mitigation plan for the restoration shall demonstrate that:

1. The stream has been degraded and restoration activity will not cause further damage;
2. The restoration will improve the water quality and fish and wildlife habitat of the stream;
3. The restoration will have no lasting adverse impact on the stream or its functions; and
4. The action of restoration will include, but not be limited to, the use of bioengineering principles to assist in stream stabilization.

B. Minimum requirements for stream restoration will include:

1. Basin analysis to determine hydrologic conditions;
2. The natural channel dimensions will be restored, including its depth, width, length and gradient at the original location, and the original horizontal alignments shall be replaced;
3. The stream bottom will be restored with identical or similar materials;
4. The bank and buffer configuration shall be restored to the original condition;
5. The channel, bank and buffer areas will be replanted with native vegetation or other non-native plants as may be approved by the City;
6. The original biologic functions of the stream will be recreated.

C. The requirements of subsection B of this section may be modified if the applicant demonstrates that a greater biologic function can be achieved.

D. Replacement or enhancement will be required when a stream or buffer is altered pursuant to an approved development proposal. There will be no net loss of stream functions on a development proposal site and no impact on stream functions above or below the site due to approved alterations.

E. Relocation of streams must meet the requirements of subsection B of this section unless it can be demonstrated that the relocation will result in increased biologic function.

F. Replacement or enhancement for approved stream alterations shall be done in streams and onsite unless it can be demonstrated that:

1. Enhancement or replacement on the site is not practical or possible;
2. The off-site location is in the same drainage sub-basin as the original stream; and
3. Greater biologic and hydrologic functions will be obtained.

G. Surface water management or flood control alterations shall not be considered enhancement of a stream unless other functions are improved at the same time by the action.

380 Wildlife Habitat Conservation Areas.

A. A sensitive area study for a habitat conservation area shall contain the information listed in Section 110 and an assessment of habitats and potential for priority species including the following site and proposal related information:

1. Identification of any non-aquatic species of local importance, priority species, or endangered, threatened, sensitive or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species;

2. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;

3. A discussion of any ongoing management practices that will protect habitat after the project site has been developed, including any proposed monitoring, maintenance, and adaptive management programs.

4. When appropriate, because of the type of habitat or species present or the project area conditions, the Shoreline Administrator may also require the habitat management plan to include an evaluation by the Washington Department of Fish and Wildlife or other qualified professional regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate.

5. Such other information that is required in the judgment of the Shoreline Administrator.

B. Development Standards.

1. Wildlife Habitat Conservation Area Buffers.

a. Establishment of buffers. The Shoreline Administrator shall require the establishment of buffer areas for activities in, or adjacent to, habitat conservation areas when needed to protect wildlife habitat conservation areas.

b. Seasonal restrictions. When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Activities may be further restricted and buffers may be increased during the specified season.

2. General Requirements.

a. A wildlife habitat conservation area and associated buffer may be altered only if the proposed alteration of the habitat and associated buffer does not degrade the functions of the habitat and associated buffer.

b. Whenever activities are proposed in or adjacent to a wildlife habitat conservation area or associated buffer, such area shall be protected through the application of measures in accordance with a sensitive area study prepared by a qualified professional and approved by the City of Lake Forest Park, and guidance provided by the appropriate state and/or federal agencies.

c. Mitigation sites should be located to achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved sensitive area study to minimize the isolating effects of development on habitat areas.

d. The Shoreline Administrator shall condition approvals of activities allowed within or adjacent to a wildlife habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions may include, but are not limited to, the following:

i. Establishment of buffer zones;

ii. Preservation of critically important vegetation;

iii. Limitation of public access to the habitat area, including fencing to deter unauthorized access;

iv. Seasonal restriction of activities;

v. Establishment of a duration and timetable for periodic review of mitigation activities; and

vi. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

e. Mitigation of alterations to wildlife habitat conservation areas shall achieve equivalent or greater biologic functions. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.

390 Wellhead Protection Areas.

A. To prevent uses that may be incompatible with ground water protection, development in wellhead protection areas shall be limited to those uses allowed under single family residential zoning.

B. Site impervious surfaces shall be limited to a total of 5,000 square feet or 35% of lot size, whichever is greater, provided that this limit may be increased if a special study submitted by the applicant indicates that the proposed development includes on site infiltration and will not have a negative impact on groundwater recharge.

400 Enforcement.

Except as provided in section E, violations of these regulations shall be enforced as follows:

A. Except as otherwise provided in this section 400, a first offense shall be a civil infraction and proceeded against as provided in Chapter 18.71 LFPMC.

B. Except as otherwise provided in this section 400, a second offense shall be a civil violation subject to a fine not to exceed five thousand dollars ($5000.00). Each day of violation shall be a separate offense. Civil violations shall be filed by civil complaint in the Lake Forest Park Municipal Court, which shall hear the matter without a jury.

C. A third offense shall be a gross misdemeanor.

D. Notwithstanding anything to the contrary in subsections A and B, the Shoreline Administrator may refer any violation for criminal prosecution as a gross misdemeanor if the Shoreline Administrator determines that the estimated cost of mitigation or restoration will exceed five thousand dollars ($5000.00), or that failure to comply with the provisions of these regulations result in environmental damage that, in the Shoreline Administrator's judgment, cannot be corrected by mitigation or restoration.

E. Notwithstanding anything to the contrary in subsections A and B, any person who works in a sensitive area without obtaining a shoreline permit with sensitive area review, when such a permit is required, is guilty of a gross misdemeanor

F. Notwithstanding anything to the contrary in subsections A and B, any person who fails to comply with a stop work order issued under Chapter 18.71 LFPMC with respect to a violation of these regulations shall be guilty of a gross misdemeanor.

APPENDIX B: RESTORATION PLAN

Sections.

B-1. Introduction

A jurisdiction's Shoreline Master Program applies to activities in the jurisdiction's shoreline zone. Activities that have adverse affects 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 Guidelines[3] 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

[3] 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.

Management Act or the local Shoreline Master Program. Because the shoreline environment is also affected by activities taking placed 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 out-of-jurisdiction actions, programs and policies can be essential for understanding how the City fits into the larger watershed 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 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 Lake Forest Park's shoreline environment in the long term.

In addition to meeting the requirements of the Guidelines, this Restoration Plan is also intended to support the City's or other non-governmental organizations' applications for grant funding, and to provide the interested public with contact information for the various entities working within the City to enhance the environment.

B-2. Shoreline Inventory Summary

B-2.1 Introduction

The City conducted a comprehensive inventory of its Lake Washington shoreline in 2006. The purpose of the shoreline inventory was to facilitate the City of Lake Forest Park'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 Lake Washington shoreline zone within City limits, including recommendations for restoration of ecological functions where they are degraded. The *Final Shoreline Analysis Report* is summarized below.

B-2.2 Shoreline Boundary

As defined by the Shoreline Management Act of 1971, shorelines include certain waters of the state plus their associated "shorelands." 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; 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…Any county or city may determine that portion of a one-hundred-year-floodplain[4] to be included in its master program as long as such portion includes, as a

[4] According to RCW 173-220-030, 100-year floodplain is "that land area susceptible to being inundated by stream derived waters with a one percent chance of being equaled or exceeded in any given year. The limit of this area

minimum, the floodway and the adjacent land extending landward two hundred feet therefrom (RCW 90.58.030)"

Shorelands in the City of Lake Forest Park include only areas within 200 feet of the ordinary high water mark, as established by the U.S. Army Corps of Engineers for Lake Washington, and any associated wetlands within shoreline jurisdiction. Lake Washington does not have a floodway or floodplain. As part of the shoreline jurisdiction assessment, McAleer Creek and Lyon Creek were reviewed. Both features were found to have mean annual flows of less than 20 cubic feet per second[5] and thus are not subject to regulation under the Shoreline Management Act. No associated wetlands have yet been identified that would extend shoreline jurisdiction beyond 200 feet from the Lake Washington ordinary high water mark.

B-2.3 Inventory

The shoreline inventory is divided into five main sections: Introduction, Current Regulatory Framework Summary, Existing Conditions, Analysis of Ecological Functions and Ecosystem-wide Processes, and Gap Analysis. Because the City's shoreline is almost entirely residential with no distinct transitions between different land uses or ecological condition, the shoreline has not been divided into discrete segments for analysis and discussion.

B-2.3.1 Land Use and Physical Conditions

1. Existing Land Use: In general, the City of Lake Forest Park shoreline area is fully developed. The few areas not occupied by residential uses are either private recreation property, vacant lots, or a formal City park. With the possible exception of limited additional residential lands being acquired for public open space, land uses along the shoreline are not expected to change over the next 20 years, although re-builds and substantial remodels are anticipated. The City's entire shoreline is zoned single-family residential, high (RS 7,200). Of that area, single-family uses comprise approximately 64 percent, and private and public recreation and open space uses comprise 25 percent of the shoreline zone. The remaining area is public right-of-way. The Burke-Gilman Trail is a substantial element of the public recreation and open space, which is generally separated from the shoreline by single-family development. There is one City park and two private recreational clubs on the waterfront. There are two privately owned recreational properties on the Lake Washington shoreline within Lake Forest Park. The Lake Forest Park Civic Club is a private waterfront recreation club that includes a clubhouse, picnic areas, swimming beach, large fixed-pile pier, boat launch and other amenities. The second privately owned recreational property is the Sheridan Beach Community Club. The Beach Club includes sport courts and an outdoor heated swimming pool, in addition to beach access and a large fixed pier. Both of these private recreational properties are open to residents of specific subdivisions that are located in their immediate area and their guests. There are only four privately owned lots within the shoreline jurisdiction that do not have a single-family home on them or a private recreational club associated with them. Each one of these "vacant" lots is owned by

shall be based upon flood ordinance regulation maps or a reasonable method which meets the objectives of the act;"

[5] http://dnr.metrokc.gov/wlr/waterres/hydrology/ParameterSelect.aspx?G_ID=117, http://dnr.metrokc. gov/wlr/waterres/hydrology/ParameterSelect.aspx?G_ID=120

property owners that are either adjacent to the vacant lot or are separated from the lot by the Burke-Gilman Trail.

2. Parks and Open Space/Public Access: Physical public access to the water is limited in Lake Forest Park itself, and consists only of Lyon Creek Waterfront Preserve. The park is 0.89 acre and was formerly a single-family home site. The home and related improvements have been removed and the area has largely been restored with native plants. The small park includes a small accessible parking area, short trails, grass sitting areas, benches, and a fixed pier. The park also includes a bridge that crosses Lyon Creek and has a structure and configuration that allows users to observe the creek in a center "cut-out" portion of the structure. The park has a natural shoreline and is located at the mouth of Lyon Creek. This park does not allow swimming or the launching of small boats and is intended to be a passive park and nature preserve. Three additional very small, waterfront properties may be in the public domain, including undeveloped street ends and a very narrow strip of land in the 15700 block of Beach Drive NE. Lake Forest Park residents also benefit from Tracy Owen Station (Log Boom) Park, a large developed waterfront park that is located in adjacent Kenmore. In addition, because the private recreational clubs are open to residents of adjacent subdivisions and their guests and also allow non-residents access for certain special events, they may be viewed as quasi-public access areas by some Lake Forest Park residents.

   A 2.1-mile section of the Burke-Gilman Trail runs through the entire length of the City near the Lake Washington shoreline. The Burke-Gilman Trail literally serves as the backbone for public access to the Lake Washington Shoreline for Lake Forest Park residents and visitors. Although the actual trail corridor does not provide physical access to the shoreline, it provides visual access and a critical physical connection between residential areas, the Town Center, Sheridan Beach Club, Lake Forest Park Civic Club, Lyon Creek Park and Tracy Owen Station/Log Boom Park. The trail also abuts a very narrow strip of private land near the southern terminus of Beach Drive NE and the northern terminus of Edgewater Lane NE around the 14900 Block. This private waterfront property has the general visual appearance of a park and has been known to be used in the past by neighbors and trail users.

3. Shoreline Modifications: The Lake Forest Park shoreline is heavily modified with close to 80 percent of the shoreline armored at or near the ordinary high water mark and a pier density of approximately 59 piers per mile. This compares to 71 percent armored and 36 piers per mile for the entire Lake Washington shoreline. Thus, for Lake Forest Park, pier density is significantly higher and shoreline armoring is slightly higher than the lake-wide figures. Many of the piers have one or more boatlifts, and approximately one-quarter of the boatlifts have canopies. It is not uncommon around Lake Washington for some historic fills to be associated with the original bulkhead construction, usually to create a more level or larger yard. Most of these shoreline fills occurred at the time that the lake elevation was lowered during construction of the Hiram Chittenden Locks.

The full shoreline inventory includes a more in-depth of discussion of the above topics, as well as information about transportation, stormwater and wastewater utilities, impervious surfaces, and historical/archaeological sites, among others.

B-2.3.2 Biological Resources and Critical Areas

The shoreline zone itself is generally deficient in high-quality biological resources and critical areas, primarily because of the extensive residential development and its associated shoreline modifications. The highest-functioning shoreline area is Lyon Creek Waterfront Preserve, which has a natural shoreline and has been revegetated with native plants. There are also a few narrow bands of forest, but these are surrounded by development and are not generally contiguous with Lake Washington. Landslide hazard areas are located within the shoreline zone south of about the 15700 block of Beach Drive NE. No wetlands are mapped within shoreline jurisdiction, although a narrow wetland fringe may be present along the tributary streams and along some of the unarmored lakefronts. Important streams in the shoreline zone include Lyon and McAleer Creeks, tributaries to Lake Washington within the City of Lake Forest Park. These streams are used by salmon, but have been impacted extensively by basin development, resulting in increased peak flows, unstable and eroding banks, loss of riparian vegetation, and fish and debris passage barriers. These changes have altered their contributions of sediment, organic debris, and invertebrates into Lake Washington. Both the Lyon and McAleer Creek systems continue to be targeted for restoration by one or more local or regional restoration groups. There are also four other mapped smaller streams in the shoreline zone, including Bsche'tla Creek that flows through a steep wooded ravine, entering the Lake near the 15300 block of Beach Drive NE.

B-3. Restoration Goals and Objectives

According to the *Lake Washington/Cedar/Sammamish Watershed (WRIA) Near-Term Action Agenda For Salmon Habitat Conservation*, Lake Washington suffers from "Altered trophic interactions (predation, competition), degradation of riparian shoreline conditions, altered hydrology, invasive exotic plants, poor water quality (phosphorus, alkalinity, pH), [and] poor sediment quality" (WRIA 8 Steering Committee 2002). Lake Forest Park's *Final Shoreline Analysis Report* (The Watershed Company 2007) provides supporting information that validates these claims specifically in the City's shoreline jurisdiction. The *WRIA 8 Action Agenda* established four "ecosystem objectives," which are intended to guide development and prioritization of restoration actions and strategies. The objectives are as follows:

- "Maintain, restore, or enhance watershed processes that create habitat characteristics favorable to salmon.
- Maintain or enhance habitat required by salmon during all life stages and maintain functional corridors linking these habitats.
- Maintain a well-dispersed network of high-quality refuge habitats to serve as centers of population expansion.
- Maintain connectivity between high-quality habitats to allow for population expansion into recovered habitat as degraded systems recover."

The WRIA 8 restoration objectives, in combination with the results of the City's *Final Shoreline Analysis Report*, the direction of Ecology's *Shoreline Master Program Guidelines*, and the City's commitment to support the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan*, are the foundation for the following goals and objectives of the City of Lake Forest Park's restoration strategy. Although the *WRIA 8 Action Agenda* and the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan* are salmon-

centered, pursuit of ecosystem-wide processes and ecological functions performance that favors salmon generally captures those processes and functions that benefit all fish and wildlife.

Goal 1 – Maintain, restore or enhance watershed processes, including sediment, water, wood, light and nutrient delivery, movement and loss.

Goal 2 – Maintain or enhance fish and wildlife habitat during all life stages and maintain functional corridors linking these habitats.

Goal 3 – Contribute to conservation and recovery of chinook salmon and other anadromous fish, focusing on preserving, protecting and restoring habitat with the intent to recover listed species, including sustainable, genetically diverse, harvestable populations of naturally spawning chinook salmon.

- Improve Lake Washington and Lake Washington tributary stream health by managing the quality and quantity of stormwater runoff, consistent at a minimum with the latest Washington Department of Ecology *Stormwater Management Manual for Western Washington*. Make any additional efforts to meet and maintain state and county water quality standards in Lake Washington tributary streams.

- Improve Lake Washington tributary stream health by eliminating man-made barriers to anadromous fish passage, preventing the creation of new barriers, and providing for transport of water, sediment and organic matter at all stream crossings.

- Improve Lake Washington and Lake Washington tributary stream health by identifying hardened and eroding lakeshores and streambanks, and correcting to the extent feasible with bioengineered stabilization solutions.

- Improve Lake Washington and Lake Washington tributary stream health by increasing large woody debris recruitment potential through plantings of trees in the riparian corridors, particularly conifers. Where feasible, install large woody debris to meet short-term needs.

- Increase quality, width and diversity of native vegetation in protected corridors adjacent to stream and lake 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.

- Decrease the amount and impact of overwater and in-water structures through minimization of structure size and use of innovative materials.

- Participate in lake-wide efforts to reduce populations of non-native aquatic vegetation.

- Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 8 to implement the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan*.

- Use the scientific foundation and the conservation strategy as the basis for local actions recommended in the Plan and as one source of best available science for future projects, ordinances, and other appropriate local government activities.

- Use the comprehensive list of actions, and other actions consistent with the Plan, as a source of potential site-specific projects and land use and public outreach recommendations.

- Use the start-list to guide priorities for regional funding in the first ten years of Plan implementation, and implementing start-list actions through local capital improvement projects, ordinances, and other activities.

- Seek funding for various restoration actions and programs from local sources and by working with other WRIA 8 jurisdictions and stakeholders to seek federal, state, grant and other funding opportunities.

- Develop a public education plan 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 vegetation removal, pesticide/herbicide use, car washing) on fish and wildlife habitats.

B-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 and finally non-profit organizations that are also active in the Lake Forest Park area.

B-4.1 Water Resource Inventory Area (WRIA) 8 Participation

The City was one of 27 members of the WRIA 8 Forum, which participated in financing and developing the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan*. The Plan includes the City of Lake Forest Park's implementation commitment in the form of City Council Resolution 926, approved 23 June 2005.
The City's preparation of the *Shoreline Analysis Report Including Shoreline Inventory and Characterization of the City of Lake Forest Park's Lake Washington Shoreline* (The Watershed Company 2007) and this *Shoreline Restoration Plan* are important steps toward furthering the goals and objectives of the WRIA 8 Plan. In its Resolution, the City committed to, among other things, "using the scientific foundation and the conservation strategy as the basis for local actions recommended in the plan and as one source of best available science for future projects, ordinances, and other appropriate local government activities." The City's Resolution also states that the City will use the "comprehensive list of actions, and other actions consistent with the Plan, as a source of potential site specific projects and land use and public outreach recommendations." The City's Shoreline Master Program update products rely heavily on the science included in the WRIA 8 products, and incorporate recommended projects and actions from the WRIA 8 products.

B-4.2 Comprehensive Plan Policies

The City updated its Comprehensive Plan on 1 December 2005, including the *Environmental Quality and Shorelines Element*. The updated Comprehensive Plan contains a number of general and specific goals and policies that direct the City to permit and condition development in such a way that the natural environment is preserved and enhanced. The guiding principles for development of the revised goals and policies are:

- Protecting environmentally sensitive areas affected by activities in neighboring cities and by private development within Lake Forest Park.
- Ensuring that environmentally sensitive area regulations are effective based on best available science.
- Potentially modifying City regulations and practices in light of the listing of chinook salmon as a threatened species under the Endangered Species Act.
- Balancing land use, housing, transportation, recreation and economic development goals against the need to protect, preserve, and enhance the City's environmental resources.

Techniques suggested by the various policies to protect the natural environment include requiring setbacks from sensitive areas, preserving habitats for sensitive species, preventing adverse alterations to water quality and quantity, promoting low impact development, preserving existing native vegetation, educating the public, and mitigating necessary sensitive area impacts.

B-4.3 Critical Areas Regulations

The City of Lake Forest Park critical areas regulations are found in Lake Forest Park Municipal Code Chapters 16.16 and 16.18. The City completed its last critical areas regulations update on 6 October 2006. The updated regulations are based on "best available science," and provide a much higher level of protection to critical areas in the City, particularly for streams and wetlands. The previous version of the regulations applied a 25-foot-wide buffer to all stream. The updated regulations categorize streams based on fish use and duration of flow, with standard buffers ranging from 35 feet to 115 feet. Wetland buffers originally ranging between 25 and 100 feet, now range from 50 to 150 feet. Management of the City's critical areas using these regulations should help insure that ecological functions and values are not degraded, and impacts to critical areas are mitigated. These critical areas regulations are one important tool that will help the City meet its restoration goals. The City's critical areas regulations are adopted by reference into the Shoreline Master Program to regulate critical areas found within the shoreline zone.

B-4.4 Stormwater Management and Planning

Chapter 16.24, Drainage Plans of the Lake Forest Park Municipal Code adopts by reference the latest edition of the *King County Surface Water Design Manual* (most recently revised in 2005). The purpose of the City's establishment of drainage regulations is to:

"…promote sound development policies and construction procedures which respect and preserve the city's watercourses; to minimize water quality degradation and control of sedimentation of creeks, streams, ponds, lakes, and other water bodies; to protect the

> life, health, and property of the general public; to preserve and enhance the suitability of waters for contact recreation and fish habitat; to preserve and enhance the aesthetic quality of the waters; to maintain and protect valuable groundwater quantities, locations, and flow patterns, to ensure the safety of city roads and rights-of-way; and to decrease drainage-related damages to public and private property."

In 2005, federal agencies approved Lake Forest Park's application to be qualified for an Endangered Species Act "take" limit when complying with the Regional Road Maintenance Program jointly developed by Washington Department of Transportation and a number of local jurisdictions. The Program includes, among other things, a detailed approach to managing stormwater runoff during road maintenance activities so that the potential to harm federally listed species is avoided and minimized to the maximum extent practicable. When Lake Forest Park's Public Works Department conducts various road maintenance activities consistent with the adopted best management practices, the City's exposure to an endangered species "takings" lawsuit is reduced and the City will be supported by the National Marine Fisheries Service if a lawsuit does occur.

B-4.5 Public Education

The City of Lake Forest Park's Comprehensive Plan identifies six policy statements based on the goal of environmental public involvement (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.

Goal EQ12 – Environmental Public Involvement

Protect and enhance the environmental quality of Lake Forest Park through public involvement.

Pol EQ 12.1 Educate residents about the benefits of protecting surface water and promote and encourage the maintenance of buffers along wetlands, streams and shorelines to provide for wildlife habitat, reduce the amount and velocity of storm-water runoff and to protect other vital buffer functions.

Pol EQ 12.2 Encourage and provide incentives for the use of native and low maintenance vegetation in residential and commercial landscapes to provide additional secondary habitat, reduce water consumption, pesticide, herbicide and synthetic fertilizer use.

Pol EQ 12.3 Protect water quality by educating citizens about proper waste disposal and eliminating pollutants that enter the storm-water system as a result of lawn and garden maintenance, car cleaning or maintenance, roof cleaning or maintenance or direct disposal into storm drains.

Pol EQ 12.4 Encourage citizens [to] follow the example of the City's policy of eliminating herbicides, pesticides, fertilizers, and animal waste in its public parks and open spaces on private property.

Pol EQ 12.5 Develop, actively participate in and help publicize local and regional programs to conserve open space and protect environmentally sensitive areas, including dedication of private sensitive area preservation tracts, conservation efforts of the [Cascade] Land Conservancy of Seattle and King County and King County's Public Benefit Rating System.

Pol EQ 12.6 Promote the proper disposal of hazardous wastes such as paint products and pesticides [by] holding special collection events at a convenient time and place for residents.

As part of the City of Lake Forest Park's efforts to abide by these goals and policies, the City supports several volunteer efforts, such as StreamKeepers and the Lake Forest Park Stewardship Foundation (see descriptions below), as well as coordinates activities such as the Urban Forest Task Force, Dig-It Fair, Youth Council, and the Legacy Project. Funding to restore waterside planting is available through the Environmental Mini-Grant, as explained below.

B-4.6 Environmental Quality Commission

The Environmental Quality Commission (EQC) is a Mayor-recommended, Council-appointed volunteer group that "works to develop policies and action plans which provide and protect the environmental well being of Lake Forest Park." It "act[s] as an "umbrella" for and work[s] cooperatively with other environmentally related action groups in the City. The Commission provides educational activities, and works with school and community groups, as well as individuals in understanding and protecting the natural environment." In addition to various City departments, the EQC coordinates with the Lake Forest Park Stewardship Foundation, StreamKeepers, and Adopt-A-Stream, among others. One of the EQC's programs oversees implementation of the EQC Environmental Mini-Grant. Mini-Grants encourage citizen restoration and enhancement projects by reimbursing 50% or 75% of eligible project expenses, for single and multi-property projects respectively, up to $500. The EQC also works to establish protocols for and educates the public about reporting tree and stream violations, investigates low-impact development techniques and policy, and was involved in development of the tree and sensitive areas ordinances.

Contact Information: http://www.cityoflfp.com/city/eqcomm/default.html

B-4.7 Urban Forest Task Force

The Urban Forest Task Force is affiliated with the Environmental Quality Commission, and is chaired by an EQC member. The impetus for the Task Force came from a commission-wide concern about the City-wide loss of trees, and the impact that has on the City's character and environment. The Task Force is addressing the tree issue by researching the benefits of trees and investigating "what other communities are doing to maintain a healthy urban forest," improving the Tree Ordinance consistent with the scientific literature, and educating the public and soliciting public input.

Contact Information: forest@cityoflfp.com,
http://www.cityoflfp.com/city/eqcomm/documents/ eqc_forest-task-force.html

B-4.8 Trout Unlimited

The Northshore Chapter of Trout Unlimited has been working with the Lake Forest Park Stewardship Foundation since 1999 on Brookside Creek, which is an important tributary of MacAleer Creek. Initially, Trout Unlimited was an expert witness for the Foundation at a

development hearing. However, Trout Unlimited is currently working with the Foundation to obtain grant funds and property owner permission to remove fish passage barriers.
Contact Information: Chris Tomkins, President, Northshore Chapter of Trout Unlimited, president@northshoretu.org, http://www.northshoretu.org/chapter.htm

B-4.9 Adopt-A-Stream Foundation

The Adopt-A-Stream Foundation (AASF) has been very active in Lake Forest Park, particularly efforts to identify and correct problems in Lyon and McAleer Creeks. In addition to a large riparian restoration project on Brookside Creek, a McAleer Creek tributary, to stabilize steep slopes and remove invasive species, AASF is also conducting a "McAleer and Lyon Creek Water Pollution Reduction Assessment Project," described below.

> "The impetus to correct pollution problems in these creeks [McAleer and Lyon] is driven by the fact that these watersheds are on the 1998 state 303(d) list for excessive levels of fecal coliform bacteria. Fecal coliform bacteria, found in the waste of warm-blooded animals, is a major concern. It indicates that people may be exposed to a variety of harmful bacteria and viruses. AASF will also address other identified water quality problems, including turbidity, total suspended solids and pesticides. These creeks are classified as Class AA waters in Washington's Water Quality Standards. "Class AA streams should be suitable for domestic, industrial, and agricultural water supply, stock watering; fish migration, rearing, spawning and harvest: wildlife habitat; and recreation (swimming, boating, fishing), and aesthetic enjoyment" (DOE, 2005). At the current conditions, they are not suitable for recreational contact. AASF will also be working with private landowners to correct identified water quality problems, such as eroding streambanks, degraded riparian conditions and direct outfalls to streams. AASF will also help educate property owners about septic system care and maintenance, and proper pet waste disposal. AASF will educate the public about the water quality issues related to McAleer and Lyon by coordinating educational forums within the basins, informational mailings, direct delivery of educational materials and technical assistance." http://www.streamkeeper.org/habitat/faqwq.htm

Contact Information: Tom Hardy, aasf@streamkeeper.org, http://www.streamkeeper.org/

B-4.10 Lake Forest Park StreamKeepers

For more than 10 years, the Lake Forest Park StreamKeepers have conducted quarterly or biannual monitoring of water quality in McAleer and Lyon Creeks at 12 separate locations. Measured parameters include temperature, oxygen, pH, turbidity, and fecal coliform. In addition, the StreamKeepers have been conducting a Biological Inventory of Benthic Invertebrates (BIBI) since 2005. In addition to water quality measurement activities, the StreamKeepers also "help educate on proper care to ensure continuing health and improvement to the quality of the streams within the City and McAleer/Lyon creek watershed" and participate in stream restoration projects conducted by other Lake Forest Park organizations. The following is the StreamKeepers mission statement:

1. Encourage and facilitate public involvement in stream monitoring, watershed stewardship and stream restoration to support salmon and trout.

2. To provide useful, credible data to the City of Lake Forest Park and to other natural resource planners acting to protect and restore the streams of Lake Forest Park.

3. Report the information collected, on a regular and timely basis to the City of Lake Forest Park, to fellow volunteers, to the citizens of Lake Forest Park and to other interested agencies and organizations.

Contact Information: Don Fiene, dfiene@comcast.net, http://www.lfpstreamkeepers.org/

B-4.11 Lake Forest Park Stewardship Foundation

The Lake Forest Park Stewardship Foundation (LFPSF) is a non-profit organization managed by a Board and an Advisory Board. Its mission is "To contribute to the well-being of our community by fostering awareness, understanding, appreciation, and stewardship of our natural environment; and by preserving and enhancing parks and open spaces." The LFPSF implements its mission by pursuing the following strategies:

"1. To assist the City of Lake Forest Park in acquiring open space for the benefit of all citizens.
2. To protect the wetlands and watersheds of Lake Forest Park in order to restore salmon habitat and maintain the quality of riparian flora and fauna throughout the City.
3. To aid the City of Lake Forest Park in providing a broad range of public places for the enjoyment of nature and leisure activities.
4. To provide educational opportunities for the promotion of conservation and environmental awareness.
5. To advocate effective and responsible natural resource policies in order to preserve biodiversity and to sustain the ecosystem for future generations.
6. To collaborate with existing organizations for the coordination and implementation of strategic goals."

A few of LFPSF's activities are briefly described below.

1. Since 2003, LFPSF has sponsored and obtained grants to implement several projects as part of "The Brookside Creek Salmon Habitat Restoration Project," whose main objective is to restore coho salmon to Brookside Creek. These projects were conducted on the properties of willing Lake Forest Park residents, and included removal of a variety of fish passage barriers (dams, faulty culverts, etc.), riparian vegetation enhancement, and channel restoration.

2. In 2001, LFPSF published *A Salmon's Guide to Lake Forest Park*, an educational pamphlet which discusses the history of and conditions in Lake Forest Park's streams, salmon habitat issues, how citizens can help protect and restore salmon habitat, and ways that citizens can be involved.

3. The Good Stewards program promotes wildlife friendly yards and landscapes, which has resulted in the City's registration by the National Wildlife Federation as a Community Wildlife Habitat. City-registration was contingent upon the City accumulating a certain number of points, which was achieved by having at least 150 certified yards, two certified businesses, and at least one certified school (Lake Forest Park Elementary School). Plans are underway and grants have been sought to incorporate a Community Demonstration Garden into Blue Heron Park.

4. LFPSF has obtained grants to study Brookside Creek and its tributaries, specifically focusing on erosion and sedimentation, stormwater runoff, and the effects on downstream McAleer Creek.

5. The LFPSF and citizens of Lake Forest Park established Grace Cole Nature Park, a 14-acre preserve containing the headwaters of Brookside Creek, after nearly 10 years of work. They obtained grants for property acquisition, lobbied for property donations, secured City funds earmarked for property acquisition, and opposed other development proposals in order to establish this new park.

6. LFPSF comments on land use proposals in the City and monitors compliance of projects in the City.

7. LFPSF also sponsors Lake Forest Park's Green Garden Fair, and other public education and outreach efforts.

Contact Information: Don Fiene, info@lfpsf.org, http://www.lfpsf.org/

B-4.12 Seattle Audubon Society

The mission of the Seattle Audubon Society is to "cultivate and lead a community that values and protects birds and the natural environment. Many residents of Lake Forest Park participate in the Lake Forest Park Neighborhood Bird Count. The goals of the Neighborhood Bird Count are to "assess species diversity and empower citizens to advocate for wildlife habitat in their communities' land-use issues" (http://www.seattleaudubon.org/).

Contact Information: http://www.seattleaudubon.org/

B-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 also active in the Lake Forest Park area.

B-5.1 Unfunded WRIA 8 Projects

Two potential projects within Lake Forest Park's boundaries are specifically identified in the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan.* The following descriptions of each project are excerpted verbatim from the *Conservation Plan*:

C302: Explore opportunities to restore riparian vegetation and reduce number of docks by working with private property owners in section.

C303: Explore opportunities to restore mouths of small tributaries in this section, including MacLeer [sic] Creek. Will require working with private property owners on revegetation. Many of small tributaries are steep, in pipes. Low feasibility. MacLeer [sic] Creek is a Chinook "sink." Avoid attracting more Chinook into creek.

In addition, a restoration opportunity at Tracy Owen Station/Log Boom Park, which is immediately adjacent to Lake Forest Park, is identified as project C298 in the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan*. The following description of that project is excerpted verbatim from the *Conservation Plan*:

C298 Tracy Owen Station Park Shoreline Restoration: Shoreline near the mouth of the Sammamish River is degraded by the presence of weedy and invasive species, erosion, and shoreline armoring. A City of Kenmore project could explore removal of wood waste from area – potential bass habitat and bad for benthic conditions. Project may include beach creation in future. The proposed project could also restore the shoreline by removing invasive plant species, planting native vegetation, and replacing existing shoreline armoring with bioengineered stabilization features. Site is a tangle of willows, with open grass to the water. City of Kenmore is ready/interested in doing the project.

B-5.2 Recommended Projects

The following is developed from a list of opportunity areas identified within the *Final Shoreline Analysis Report*. The list of potential projects was created after assessing field conditions, and 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) improvements to nearshore native vegetative cover, and/or
4) reductions in impervious surface coverage. Similar opportunities would also apply to undeveloped lots which may be used as community lots for upland properties or local street-ends and utility corridors. Other opportunities may exist to improve either fish habitat or fish passage for those properties which have streams discharging to Lake Washington. See also Projects C302 and C303 (above) in *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan*.

Restoration of Multiple Contiguous Properties: Through grant funding sources, restoration opportunities may be available to multiple contiguous shoreline properties, including residential lots, that are interested in improving shoreline function. Restoring shorelines properties that are connected to one another would provide significantly more benefits than a more piecemeal approach. Therefore, priority should be given to restoration projects which involve multiple lots (such as accelerated permit processes). The Lake Forest Park Stewardship

Foundation is an excellent resource for information about potential grants or project partners.

Lyon and McAleer Creeks: Restoration opportunities identified in the City's *McAleer and Lyon Creeks Drainage Basin Study* report (Hammond, Collier & Wade-Livingstone Associates, Inc. 1999) include recommendations for culvert replacements (address flooding and fish passage) and regional detention pond construction (address water quantity and quality issues), among others. While none of these recommendations are specifically within shoreline jurisdiction, they would still provide positive effects to the shoreline environment by reducing sediment delivery and improving habitat conditions for anadromous fish. Specific projects identified as near-term (5- to 10-year) projects, include replacing several undersized CMP culverts near the downstream end of Lyon Creek with box-culverts and restoring capacity of existing detention facilities. These actions would significantly increase capacity and reduce flooding potential. Additional recommendations provided in the *McAleer and Lyon Creeks Drainage Basin Study* include providing an additional regional detention facility which would hold up to 10 acre-feet of water storage. However, this would require approximately 2 acres of land. As such, no official site has been designated.

Tracy Owen Station/Log Boom Park: The City of Kenmore owns and manages the adjacent Tracy Owen Station/Log Boom Park. This park could provide opportunities for enhancement of similar habitat within one mile of Lake Forest Park Town Center if the City of Kenmore is amenable. The City of Lake Forest Park could focus habitat improvement efforts at this site. The City could also choose to provide additional flexibility and synergy for permit applicants by allowing and encouraging off-site mitigation requirements at this location (i.e. mitigation beyond that which is necessary on-site to assure no net loss of ecological functions necessary to sustain shoreline natural resources). Opportunities could include improving shoreline buffers by controlling invasive species and planting native vegetation and perhaps even the removal of derelict pilings. Closer investigation will likely provide additional opportunities for consideration. See also Project C298 (above) in *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan*.

B-5.3 Burke Gilman Trail

King County is currently working towards widening the section of Burke-Gilman Trail that traverses through the City of Lake Forest Park. Under this proposal, the trail would be widened by 2 feet to improve access, minimize congestion, and improve safety. The trail expansion may impact wetlands, streams, and/or their buffers, and would likely mitigate those impacts through restoration and/or enhancement of on-site wetlands, streams, and/or their buffers. Potential stream impacts are likely to occur along Lyon Creek, where the existing trail bridge may be replaced. Restoration opportunities within Lyon Creek and its buffer include improvement of in-stream habitat, removal of in-stream bridge support pilings, and planting of native riparian vegetation. Additional mitigation along the Burke-Gilman Trail would likely entail planting of native vegetation within adjacent buffer areas. While the majority of this mitigation would likely occur outside of the shoreline jurisdiction, these actions may still provide some benefit to the shoreline environment through nutrient and pollutant removal.

B-5.4 Public Education

The *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan* includes a table outlining 53 "Outreach and Education Actions" with target audiences for each action ranging from the general public, to shoreline property owners in general, to lakeshore property owners specifically, to businesses, to youth, and others. Three of the actions specifically list the Lake Forest Park Stewardship Foundation as an organization with a "proven track record" that can serve as a "model" for successful implementation of programs or activities similar to the WRIA 8 actions.

The City should coordinate with the LFPSF, if LFPSF is willing, and the Environmental Quality Commission to develop a long-term *Public Education and Outreach Plan* that incorporates appropriate elements of the WRIA 8 "Outreach and Education Actions," LFPSF's and the EQC's existing education efforts, and the work of other local organizations with an education focus.

B-5.5 Other Environmental Organizations

Although the following organizations include Lake Forest Park in their general service areas, they have indicated that they are not currently actively engaged in specific activities or programs that affect Lake Forest Park's shorelines, nor do they have any plans in the area. However, that does not preclude them from playing an active role in the future, particularly if any of the City's citizens solicit assistance from or become members in these organizations.

- Washington Trout
- The Nature Conservancy

B-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 a few private clubs and one park. Therefore, the largest potential for directly improving shoreline ecological function lies in promoting restoration and healthy practices at the single-family property owner scale. Lake Forest Park already has a very active environmental community with a restoration and education focus, although it primarily targets the tributary streams of Lake Washington with little emphasis on the lake itself. Continued improvement of shoreline ecological functions on the shoreline though requires a more comprehensive watershed approach, which combines the upstream projects and programs with lakefront improvements.

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

Restoration Project/Program	Schedule	Funding Source or Commitment
4.1 WRIA 8 Participation	Ongoing	The City is an active member of the WRIA 8 Forum. Membership at this time entails a commitment of staff time.

Restoration Project/Program	Schedule	Funding Source or Commitment
4.2 Comprehensive Plan Policies	Revised in December 2005	The City makes a substantial commitment of staff time in the course of project and program reviews to determine consistency and compliance with the recently updated Comprehensive Plan. The next Comprehensive Plan update will occur in 2012.
4.3 Critical Areas Regulations	Revised in December 2005	The City makes a substantial commitment of staff time in the course of project and program reviews to determine consistency and compliance with their recently updated Critical Areas Regulations.
4.4 Stormwater Planning	Ongoing	Currently, staff time and materials are the only City resource commitments. The City has adopted the *2005 King County Surface Water Design Manual,* which is under consideration for equivalence by the Department of Ecology. The City is also in the process of evaluating which areas of the City have the most potential for generating stormwater pollution, and will be identifying treatment and source control options for those areas. This work is ongoing as part of a five-year compliance plan for mandatory activities prescribed by the NPDES phase II municipal stormwater permit.
4.5 Public Education	Ongoing	Currently, staff time and materials are provided to several on-going community education efforts such as the Dig-it-Fair, Youth Council, and the recently organized Legacy Project. Funding is provided to the Environmental mini-grant to assist waterside property owners with restoration planting.
4.6 Environmental Quality Commission 4.7 Urban Forest Task Force	Ongoing	Currently, staff time and materials to support these groups are the only City resource commitments. These groups consist of volunteers appointed by the Mayor. City staff time is allocated to attend Taskforce meetings.
4.8 Trout Unlimited 4.9 Adopt-A-Stream 4.10 StreamKeepers 4.11 Lake Forest Park Stewardship Foundation 4.12 Seattle Audubon Society	As funds and opportunity allow	The City does not have authority over or a formal relationship with these organizations. These organizations are either a source of grant funds for restoration projects, are advocates for specific restoration projects, independently obtain grants for restoration projects, or are partners in implementing restoration or education projects.
5.1 Unfunded WRIA 8 Projects	As funds and opportunity allow	The City Council passed a resolution in 2005 expressing its approval and support for the Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan. Projects will be funded by the City, partnering agencies and non-profit organizations, and grants as projects and funding opportunities arise.
5.2 Recommended Projects	As funds and opportunity allow	Projects identified in this section would likely be implemented either when grant funds are obtained, when partnerships are formed between the City and other agencies or non-profit groups, or as may be required by the critical areas regulations and the Shoreline Master Program during project-level reviews by the City.

Restoration Project/Program	Schedule	Funding Source or Commitment
5.3 Burke Gilman Trail	Ongoing	Any mitigation required for final project impacts would be conducted and funded by King County.
5.4 Public Education	As funds and opportunity allow	On-going and future education efforts should be coordinated with the LFPSF and the Environmental Quality Commission to develop a long-term *Public Education and Outreach Plan* which incorporates WRIA 8 recommendations.

City planning staff will track all land use and development activity, including exemptions, within shoreline jurisdiction. A report will 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 stream bank stabilized through plantings, linear feet of shoreline armoring removed, or number of fish passage barriers corrected. The report would also update Table 1 above, and outline implementation of various programs and restoration actions (by the City or other groups) that relate to watershed health.

The staff report will be assembled to coincide with Comprehensive Plan updates (next one scheduled for 2012), and will be presented to a newly established Shoreline Task Force. The responsibilities of the Shoreline Task Force would be to asses the information in light of the goals and objectives of the Shoreline Master Program, and determine whether implementation of the SMP is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the *Shoreline Analysis Report Including Shoreline Inventory and Characterization of the City of Lake Forest Park's Lake Washington Shoreline* (The Watershed Company 2007). In the long term, the City should be able to demonstrate a net improvement in the City of Lake Forest Park's shoreline environment.

Based on the results of the Shoreline Task Force's assessment, it may make recommendations to City staff, Planning Commission and City Council for changes to the SMP.

B-7. Restoration Priorities

The process of prioritizing actions that are geared toward restoration of Lake Forest Park's shoreline area involves balancing ecological goals with a variety of site-specific constraints. Briefly restated, the City's goals include 1) protecting watershed processes, 2) protecting fish and wildlife habitat, and 3) contributing to chinook conservation efforts. Constraints that are specific to Lake Forest Park include a heavily developed shoreline area with predominantly private land ownership. These goals and constraints were used to develop a hierarchy of restoration actions to rank different types of projects or programs associated with shoreline restoration. Due to the private land ownership along the shoreline, programmatic actions like continuing WRIA 8 involvement and conducting outreach programs to lakeshore landowners, receive higher priority than items involving cooperative action with private landowners. Other factors that influenced the hierarchy are based on scientific recommendations specific to WRIA 8, potential funding sources, and the projected level of public benefit.

Although restoration project/program scheduling is summarized in the previous section (Table 1), 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 bulkhead removal or shoreline restoration.

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 more expensive projects are under way. Some of the priorities in the hierarchy are accompanied by specific projects that stem from recommendations in the "Action Start-List for Migratory Areas" (WRIA 8 Steering Committee 2005), which were designed to benefit migration corridors for juvenile chinook salmon.

B-7.1 Priority 1 – Continue Water Resource Inventory Area (WRIA) 8 Participation

Of basic importance is the continuation of ongoing, programmatic, basin-wide programs and initiatives such as the WRIA 8 Forum. Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 8 to implement the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation 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.

B-7.2 Priority 2 – Public Education and Involvement

Public education and involvement has a high priority in the City of Lake Forest Park due to the predominance of residential development along the shoreline. Opportunities for restoration outside of residential property are limited to one City park, two community properties, and three other very small parcels that may be in the public domain. 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 is key to success, and would possibly entail coordinating the development of a long-term Public Education and Outreach Plan (Section B-5.2).

Specific projects from the Action Start List include developing a workshop series and website that is tailored to lakeshore property owners, and that promotes natural yard care, alternatives to vertical bulkheads, fish-friendly dock design, best management practices for aquatic weed control, porous paving, and environmentally friendly methods of maintaining boats, docks, and decks. The City could also produce a handbook for shoreline property owners detailing these same concepts. Additionally, design competitions and media coverage could be used to promote the use of "rain gardens" and other low impact development practices that mimic natural hydrology. A home/garden tour or "Street of Dreams" type event might serve to showcase these landscape/engineering treatments.

B-7.3 Priority 3 – Reduce Shoreline Armoring along Lake Washington, Create or Enhance Natural Shoreline Conditions

The preponderance of shoreline armoring and its association with impaired habitat conditions, specifically for juvenile chinook salmon, has been identified as one of the key limiting factors along Lake Washington (Kerwin 2001). Nearly 80 percent of the shoreline within the City of Lake Forest Park is armored at or below the ordinary high water mark and much of the remaining 20 percent has some form of armoring located upland of the ordinary high water mark (The Watershed Company 2007). Since the majority of the City's shoreline is residential, no specific project sites have been identified under this restoration priority. However, emphasis should be given to future project proposals that involve or have the potential to restore shoreline areas to more natural conditions. The City should explore ways in which to assist local property owners, whether through financial assistance, permit expedition, or guidance, to team together with restoration of multiple contiguous lots.

While not specifically located within the City of Lake Forest Park, the unfunded project, Tracy Owen Station Park Shoreline Restoration (C298), identified in the *Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan* includes potential reduction in shoreline armoring and subsequent restoration and enhancement of shoreline ecological functions.

Recommendations from the Action Start List reflect this focus and encourage salmon friendly shoreline design during new construction or redevelopment by offering incentives and regulatory flexibility to improve bulkhead and dock design and revegetate shorelines. Other recommendations from the List that support this priority include: 1) increasing enforcement that addresses nonconforming structures over the long run by requiring that major redevelopment projects meet current standards; 2) discouraging construction of new bulkheads and offer incentives (e.g., provide expertise, expedite permitting) for voluntary removal of bulkheads, beach improvement, riparian revegetation; 3) utilizing interpretive signage where possible to explain restoration efforts.

B-7.4 Priority 4 – Reduction of In-water and Over-water Structures

Similar to Priority 3 listed above, in-water and over-water structures, particularly piers, docks, and covered moorages, have been identified as one of the key limiting factors in Lake Washington (Kerwin 2001). Pier density within the City is 59 piers per mile compared to a lake-wide average of 36 piers per mile, an increase of 64 percent. The density of residential development along the City's lakeshore is the main reason for the higher-than-average pier density. Although no specific 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 projects may involve joint-use pier proposals or pier reconstruction and may be allowed an expedited permit process. Action Start List Recommendations in support of Priority 4 include: 1) supporting the joint effort by NOAA Fisheries and other agencies to develop dock/pier specifications that streamline federal/state/local permitting; 2) promoting the value of light-permeable docks, smaller piling sizes, and community docks to both salmon and landowners through direct mailings to lakeshore landowners or registered boat owners sent with property tax notice or

boat registration tab renewal; and 3) offering financial incentives for community docks in terms of reduced permit fees, loan fees/percentage rates, taxes, and permitting time, in addition to construction cost savings. Similarly, the *WRIA 8 Conservation Plan* identified a future project (C302) to explore opportunities to reduce the number of docks by working with private property owners.

B-7.5 Priority 5 – Restore Mouths of Tributary Streams, Reduce Sediment and Pollutant Delivery to Lake Washington

Although most of the streams and their basins located within the City are outside of shoreline jurisdiction, their impacts to shoreline areas should not be discounted. Many of these streams have the potential to provide fish and wildlife habitat. Specific projects in this category include the unfunded WRIA 8 project (C303) listed in Section B-5.1 to restore the mouths and tributary streams which feed into Lake Washington. This would include working closely with private property owners to provide revegetation, installation of habitat features, and creation of open channels where pipes currently exist.

Upstream projects identified in the City's *McAleer and Lyon Creeks Drainage Basin Study* report (Hammond, Collier & Wade-Livingstone Associates, Inc. 1999) include replacing culverts near the downstream end of Lyon Creek with box-culverts, restoring capacity of existing detention facilities throughout the City, and exploring construction of an additional regional detention facility.

Action Start List Recommendations in support of Priority 5 include: 1) addressing water quality and high flow impacts from creeks and shoreline development through NPDES Phase 1 and Phase 2 permit updates, consistent with Washington Department of Ecology's 2001 Stormwater Management Manual, including low impact development techniques, on-site stormwater detention for new and redeveloped projects, and control of point sources that discharge directly into the lakes; and 2) Protecting and restoring water quality and other ecological functions in tributaries to reduce effects of urbanization. This involves protecting and restoring forest cover, riparian buffers, wetlands, and creek mouths by revising and enforcing critical areas ordinances and Shoreline Master Programs, incentives, and flexible development tools.

B-7.6 Priority 6 – Improve Riparian Vegetation, Reduce Impervious Coverage

Similar to the priorities listed above, improved riparian vegetation and reduction in impervious surfaces are emphasized in the *WRIA 8 Conservation Plan*, specifically project C302 which emphasizes the importance of restoring riparian vegetation through private property owners. Projects in this category include the proposed Burke Gilman Trail Expansion (Section B-5.3).

B-7.7 Priority 7 – Acquisition of Shoreline Property for Preservation, Restoration, or Enhancement Purposes

Due to the shortage of City-owned shoreline property, the City should explore opportunities to purchase shoreline property both for the purposes of increasing public recreation and shoreline access, and constructing demonstration shoreline restoration projects.

B-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 have been the subject of a thorough review and have recently been updated accordingly. Notably, the City's Sensitive Areas Ordinance was recently updated consistent with the Best Available Science for critical areas, including those within the shoreline zone. For the time being, it is considered more important to capitalize on this work by focusing on implementing projects consistent with these updated policies. Unimplemented or unused policies, by themselves, will not improve habitat. As time goes by, further review and potential updating of these policies may increase in priority. Policy-related items in this category as listed in previous sections include Comprehensive Plan Policies (Section B-4.2), Critical Areas Regulations (Section B-4.3), and Stormwater Planning (Section B-4.4).

The City applied for its National Pollutant Discharge Elimination System (NPDES) Phase II permit in April 2003 from Ecology. The initial permit was issued on January 17, 2007. 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, 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 conducts all of the above at some level already, but significant additional effort may be needed to document activities and to alter or upgrade programs. The City has various programs to control stormwater pollution through maintenance of public facilities, inspection of private facilities, water quality treatment requirements for new development, source control work with businesses and residents, and spill control and response. Monitoring may be required as part of an illicit discharge detection and elimination program, for certain construction sites, or in waterbodies with a Total Maximum Daily Load (TMDL) Plan for particular pollutants. General water quality monitoring was not required in the first five-year term of the draft Phase II permit that was issued in summer 2006; however, the draft permit asks municipalities to assist in development of a monitoring program that will be implemented during the second five-year permit term. General water quality monitoring concerns include a) stormwater quality, b) effectiveness of best management practices, and c) effectiveness of the stormwater management program.

The City has adopted the *2005 King County Surface Water Design Manual*, and is anticipating that it will be determined to be equivalent to Ecology's 2005 *Stormwater Management Manual for Western Washington*, as the NPDES Phase II permit requires. The King County Manual is under consideration for equivalence by the Department of Ecology. The King County Manual references the *Low Impact Development: Technical Guidance Manual for Puget Sound* as a viable source of appropriate low impact techniques for drainage control. The City should consider exploring broader code revisions that would encourage, or in some cases possibly require, Low Impact Development techniques in the shoreline area as detailed in the *Low Impact Development: Technical Guidance Manual for Puget Sound.*

The purpose of stormwater detention is to reduce flooding of roads and structures, and to

reduce damage to stream channels (and associated fish habitat) that results from the more frequent and longer duration peak flows that come from developed watersheds. Large lakes such as Lake Washington are not subject to damage from peak flows, and so detention is not required for projects draining directly to them. In addition, the lake level is managed and maintained by the Corps, which further reduces flooding potential.

However, discharges into the streams, such as McAleer Creek and Lyon Creek, can have a significant impact on in-stream habitat complexity, peak flow magnitude and duration, bank stability, substrate composition, and a number of other parameters. The water quality impact of stormwater inputs is also significant. Stormwater runoff carries pesticides, herbicides and fertilizers applied to lawns and sports fields; hydrocarbons and metals from vehicles; and sediments from construction sites, among other things. All of these things can harm fish and wildlife, their habitats, and humans. Per current standards, water quality treatment is required when 5,000 square feet or greater of "pollution generating" impervious surface (driveways, parking areas) is created or replaced, regardless of whether the system drains to a lake or a stream. The City is also in the process of evaluating which areas of the City have the most potential for generating stormwater pollution, and will be identifying treatment and source control options for those areas. This work is ongoing as part of a five-year compliance plan for mandatory activities prescribed by the NPDES phase II municipal stormwater permit.

B-8. References

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