

## Exhibit A

### Shoreline Management Element of the Comprehensive Plan

#### Shoreline Management Goals

The City adopts the goals and principles of the Shoreline Management Act as provided in RCW 90.58.020 and as particularly relevant to Renton.

1. The shoreline jurisdiction is one of the most valuable and fragile of the City's natural resources. There is appropriate concern throughout the watershed and the greater Puget Sound Region relating to the utilization, protection, restoration, and preservation of the shoreline jurisdiction.
2. Ever increasing pressures of additional use are being placed on the shoreline jurisdiction, which in turn necessitates increased coordination in its management and development.
3. Much of the shoreline jurisdiction and the uplands adjacent thereto are in private ownership. Unrestricted construction on the privately owned or publicly owned shorelines is not in the best public interest; therefore, coordinated planning is necessary in order to protect the public interest associated with the shoreline jurisdiction while recognizing and protecting private property rights consistent with the public interest.
4. There is 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 City's shoreline jurisdiction.
5. It is the intent of the City to provide for the management of the shoreline jurisdiction by planning for and fostering all reasonable and appropriate uses. The Shoreline Master Program is designed to ensure the development in a manner that, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest.
6. The City's shoreline policies are intended to protect against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.
7. In the implementation of the Shoreline Master Program, the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines shall be preserved to the greatest extent feasible consistent with the overall best interest of the state, the county, and the people generally. To this end, uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the state's shoreline.

8. Alterations of the natural condition of the shoreline, in those limited instances when authorized, shall be given priority for single family residences and their appurtenant structures; ports; shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines; industrial and commercial developments that are particularly dependent on their location on or use of the shoreline jurisdiction; and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines.
9. Permitted uses in the shorelines zone shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline jurisdiction and any interference with the public's use of the water.

### **INTRODUCTION**

The Washington State Shoreline Management Act (the Act) passed in 1971 and is based on the philosophy that the shorelines of our state are among our most "valuable" and "fragile" natural resources and that unrestricted development of these resources is not in the best public interest. Therefore, planning and management are necessary in order to prevent the harmful effects of uncoordinated and piece-meal development of our state's shorelines.

Shorelines are of limited supply and are faced with rapidly increasing demands for uses such as marinas, fishing, swimming and scenic views, as well as recreation, private housing, commercial and industrial uses.

The policy goals for the management of shorelines harbor potential for conflict. The Act recognizes that the shorelines and the waters they encompass are "among the most valuable and fragile" of the state's natural resources. They are valuable for economically productive industrial and commercial uses, recreation, navigation, residential amenity, scientific research and education. They are fragile because they depend upon balanced physical, biological, and chemical systems that may be adversely altered by natural forces and human conduct. Unbridled use of shorelines ultimately could destroy their utility and value. The prohibition of all use of shorelines also could eliminate their human utility and value. Thus, the policy goals of the Act relate both to utilization and protection of the extremely valuable and vulnerable shoreline resources of the state. The act calls for the accommodation of "all reasonable and appropriate uses" consistent with "protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life" and consistent with "public rights of navigation. The planning policies of master programs (as distinguished from the development regulations) may be achieved by a number of means, only one of which is the regulation of development. Other means, as authorized by Revised Code of Washington (RCW) 90.58.240, include, but are not limited to: the acquisition of lands and easements within shorelines of the state by purchase, lease, or gift, either alone or in concert with other local governments, and accepting grants, contributions, and appropriations from any public or private agency or individual. Additional other means may include, but are not limited to, public facility and park planning, watershed planning, voluntary salmon recovery projects, and incentive programs.

Through numerous references to and emphasis on the maintenance, protection, restoration, and preservation of "fragile" shoreline, "natural resources," "public health," "the land and its vegetation and wildlife," "the waters and their aquatic life," "ecology," and "environment," the Act makes protection of the shoreline environment an essential statewide policy goal consistent with the other policy goals of the Act. It is recognized that shoreline ecological functions may be impaired not only by shoreline development subject to the substantial development permit requirement of the Act but also by past actions, unregulated activities, and development that is exempt from the Act's permit requirements. The principle regarding protection of shoreline ecological systems is accomplished by these guidelines in several ways, and in the context of related principles.

### **Local Responsibility**

Under the Washington State Shoreline Management Act, local governments have the primary responsibility for initiating the planning program and administering the regulatory requirements of the Act, with the Washington State Department of Ecology acting in a supportive, review, or approval capacity depending on the particular shoreline proposal and regulatory requirements.

As set forth in the provisions of the Act, local governments must fulfill the following basic requirements:

- Use a process that identifies, inventories, and ensures meaningful understanding of current and potential ecological functions provided by affected shorelines.
- Include policies and regulations designed to achieve no net loss of those ecological functions, including:
  - Regulations and mitigation standards ensuring that each permitted development will not cause a net loss of ecological functions of the shoreline.
  - Local government shall design and implement such regulations and mitigation standards in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property.
- Include goals and policies that provide for restoration of impaired ecological functions that include identifying existing policies and programs that contribute to planned restoration goals, as well as any additional policies and programs that local government will implement to achieve its goals. This Master Program element considers established or funded non-regulatory policies and the direct or indirect effects of other regulatory or non-regulatory programs.
- Evaluate and consider cumulative impacts of reasonably foreseeable future development on shoreline ecological functions and other shoreline functions fostered by the policy goals of the Act, address adverse cumulative impacts, and fairly allocate the burden of addressing cumulative impacts among development opportunities.

### **Development of the Master Program**

The Washington State Shoreline Management Act of 1971 (RCW 90.58) directs all local governments to develop a Master Program for the management of all shorelines of the state and associated shore lands that are under the local governments' jurisdictions.

Shoreline management is most effective and efficient when accomplished within the context of comprehensive planning. The Growth Management Act requires mutual and internal consistency between the comprehensive plan elements and implementing development regulations (RCW 36.70A).

This Master Program has been prepared and updated to comply with the requirements of the Shoreline Management and Growth Management Acts and to formulate guidelines that will regulate the utilization and development of the shorelines within the City of Renton. As part of this Master Program, the City of Renton has established administrative provisions, including a permit system for any substantial development, as well as review provisions to ensure that all development complies with the policies and regulations of the program.

The City of Renton has conducted a comprehensive inventory of the natural characteristics, present land uses, and patterns of ownership along the City's shoreline that provides a substantial information base for understanding ecological functions and other considerations for the development of this Master Program update.

The City of Renton, with the involvement of its local citizens, agencies, and interested parties has developed this Shoreline Master Program to serve as both a planning guide and resource for specific regulations pertaining to development and use of the shorelines in Renton. Included is a description of the goals, objectives, policies, environments, use regulations, and provisions for variances and conditional uses.

The basic intent of this Master Program is to provide for the management of shorelines of the state within Renton's jurisdiction by planning for and fostering all reasonable and appropriate uses and to ensure, if development takes place, that it is done in a manner which will promote and enhance the best interests of the general public. This Master Program has further been composed to protect the public interest and general welfare in shorelines and, at the same time, to recognize and protect the legal property rights of owners consistent with the public interest. The goals and policies of this Master Program are formulated so as to enhance the public use and enjoyment of the shorelines. It is recognized that the Shorelines of the State found in Renton are located within a major urbanized area, and that they are subject to ever increasing pressures of additional uses necessitating increased coordination in the management and development of the shorelines. The Shoreline Master Program is a planned, rational, and concerted effort to increase coordinated and optimum utilization of the Shorelines of the State in Renton.

### **Regulated Shorelines**

**Overview:** Over 18 miles of shoreline in the City of Renton's planning area are under the jurisdiction of the Shoreline Management Act of 1971. By statutory standards, the Green River and Lake Washington are classified as Shorelines of Statewide Significance, and comprise

approximately 5.8 miles of the Shorelines of the State regulated by City of Renton. In addition, the shorelines of the Cedar River, Black River, Springbrook Creek, and May Creek are shorelines within the City. These 18 miles of shoreline in the City of Renton are an extremely valuable resource not only to the City of Renton, but also for the watersheds of which they are part and for the greater Puget Sound community of which Renton is an integral part.

**Shoreline Jurisdiction:** In the City of Renton, the following bodies of water are regulated by the Act:

**Applicability:** The Renton Shoreline Master Program applies to Shorelines of the State, which includes Shorelines of Statewide Significance and Shorelines as defined in Renton Municipal Code (RMC) 4-11 and as listed below.

1. Shorelines of Statewide Significance:
  - a. Lake Washington
  - b. Green River (The area within the ordinary high water mark of the Green River is not within the Renton City Limits, but portions of the 200-foot shoreline jurisdiction are within city limits.)
2. Shorelines:
  - a. Cedar River
  - b. May Creek from the intersection of May Creek and NE 31st Street in the southeast quarter of the southeast quarter of Section 32-24-5E WM
  - c. Black River
  - d. Springbrook Creek from the Black River on the north to SW 43rd Street on the south
  - e. Lake Desire (in the city's future annexation area)

**Extent of Shoreline Jurisdiction:** The jurisdictional area includes:

1. Lands within 200 feet, as measured on a horizontal plane, from the ordinary high water mark, or lands within 200 feet from floodways, whichever is greater;
2. Contiguous floodplain areas; and
3. All marshes, bogs, swamps, and river deltas associated with streams, lakes, and tidal waters that are subject to the provisions of the State Shoreline Management Act.

**Shorelines of Statewide Significance:** Each shoreline has its own unique qualities which make it valuable, particularly Shorelines of Statewide Significance, which in Renton include Lake Washington and the Green River. Preference is, therefore, given to the following uses in descending order of priority (as established by Chapter 90.58.020 RCW) for Shorelines of Statewide Significance:

1. Recognize and protect the statewide interest over local interest for Shorelines of Statewide Significance.

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

Development, redevelopment, and use of Lake Washington shall recognize and protect the statewide interest in terms of providing for benefits to the general public in terms of:

- Preserving and enhancing the natural character and ecological functions of the shoreline to provide long-term public benefits to fish stocks, many of which depend on south Lake Washington for a key phase of their lifecycle.
- Increasing public access to the shoreline and integrating public access on individual sites with an integrated non-motorized trail system to allow access to persons not living or on near the shoreline.
- Ensuring that impacts of development are mitigated to ensure the long-term benefits of a productive environment over short-term economic benefits.
- Providing a variety of recreational opportunities for the public in multiple use development on the shoreline.
- Providing high standards for design and aesthetics in the shoreline site and building design to address the visual character and quality of the range of public use of the lake and shorelines. Design and review standards shall achieve high-quality landmark developments that are integrated with the natural environment, that provide appropriate transition to areas of less intense development, and integrate building height, bulk, setbacks, landscaping, and signage into a cohesive whole.
- The redevelopment of former industrial areas on the Lake Washington shoreline will lead to the creation of a vibrant new lakefront community providing additional housing, shopping, and employment opportunities to the region. Multiple use projects will take advantage of the amenities of the lake while providing opportunities for water-oriented uses, public access and/ or ecological enhancement.

**Geographic Environments:** Shorelines are classified into separate geographic areas known as “use environments” based upon current development pattern, biophysical capabilities, and other factors. Policies, standards, and regulations can be customized by the use environment, shoreline, and other uses depending on need. Generally, regulated shorelines include the water bodies and their shorelands extending landward from the floodway or ordinary high water mark for 200 feet in all directions. This jurisdictional area increases to include all marshes, bogs, swamps, and river deltas associated with the regulated Shorelines of the State. The total of this area is subject to shoreline use classification and regulation.

The overlay districts in the Renton Shoreline Master Program are classified as zoning overlay districts and include six districts:

1. Shoreline Natural Environment Overlay District

**Objective:** The objective in designating a natural environment is to protect and preserve unique and fragile shoreline or wetland environments that are ecologically intact as close to their natural state as possible. The natural environment is intended to provide areas of wildlife sanctuary and habitat preservation.

**Areas to be Designated as a Natural Environment:** A Natural Area designation is assigned to shoreline areas if any of the following characteristics apply:

- The shoreline retains the majority of natural shoreline functions, as evidenced by the shoreline configuration and the presence of native vegetation. Generally, but not necessarily, ecologically intact shorelines are free of structural shoreline modifications, structures, and intensive human uses.
- Shoreline areas that provide valuable functions for the larger aquatic and terrestrial environments, which could be lost or significantly reduced by human development.
- The shoreline represents ecosystems that are of particular scientific and educational interest.
- Shorelines with large areas of relatively undisturbed areas of wetlands.
- Shorelines that support specific important wildlife habitat, such as heron rookeries.
- The shoreline is unable to support new development, extractive uses, or physical modifications or uses without significant adverse impacts to ecological functions.

2. Shoreline Urban Conservancy Environment Overlay District

**Objective:** The purpose of the Urban Conservancy environment is to protect, conserve, restore, and manage existing areas with ecological functions of open space, floodplain, and other sensitive lands where they exist in urban and developed settings, while allowing compatible uses.

**Areas to Be Designated as a Conservancy Environment:**

- Areas of high scenic value.
- Areas of open space, floodplain, or other sensitive areas such as wetlands or geological hazards that should not be more intensively developed.
- Areas that retain important ecological functions, including areas, which, even though they are partially developed, provide valuable wildlife habitat or essential aquatic habitat functions.
- Areas with the potential for ecological restoration.
- Areas that cannot provide adequate utilities for intense development.
- Areas with unique or fragile features.

3. Shoreline Single Family Residential Overlay District

**Objective:** The objective of the Single-Family Residential Shoreline Overlay District is

to accommodate residential development and appurtenant structures that are consistent with this chapter.

**Areas to Be Designated:** The Single-Family Residential Shoreline Overlay District is applied to and characterized by single-family use and zoning.

4. Shoreline High-Intensity Overlay District

**Objective:** The objective of the High Intensity Overlay is to provide opportunities for large-scale office and commercial employment centers as well as multi-family residential use and public services. This district provides opportunities for water-dependent and water-oriented uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded. Development may also provide for public use and/or community use, especially access to and along the water's edge.

**Areas to Be Designated:** The Shoreline High-Intensity Overlay District is designated in areas characterized by: commercial, industrial, or mixed-use zoning or use, but not meeting the criteria for conservancy or natural designation.

**Management Policies:**

**Water-Oriented Activities:** Because shorelines suitable for high-intensity urban uses are a limited resource, development opportunities are largely limited to redevelopment. Existing industrial and commercial uses on the shoreline are not water-dependent. It is unlikely that the Renton shoreline will provide opportunities for a commercial port, or other major water-oriented industrial uses. However, there may be opportunity for some types of water-dependent uses to be integrated into existing multiple-use developments or redevelopment projects, particularly on Lake Washington. Opportunities for water-dependent and water-oriented uses are likely to be oriented to recreation, public enjoyment, transportation, and moorage. Emphasis shall be given to development within already developed areas and particularly to water-oriented industrial and commercial uses.

**Non-water-oriented Activities:** Non-water-oriented uses should be permitted as part of development that also includes water-oriented use. Non-water-oriented uses should be allowed in limited situations where they do not conflict with or limit opportunities for water-oriented uses, or on sites where there is not direct access to the shoreline. Non-water-oriented uses allowed in the shoreline should provide ecological restoration and/or public access along the full length of shoreline frontage.

**Public Access:** Priority is also given to planning for public visual and physical access to water in the High Intensity Overlay District. Identifying needs and planning for the acquisition of urban land for permanent public access to the water is addressed in Public Access regulations in 4-3-090.E.4.g Table of Public Access Requirements by

Reach. Public access is one of the primary public benefits that may be necessary to locate development on the shoreline.

Ecological Restoration: Providing for restoration of ecological functions is one of the public benefits necessary to locate non-water-oriented development on the shoreline. Ecological restoration opportunities are limited in Renton due to the developed nature of much of the shoreline. Generally, new development and redevelopment should remove and replace shoreline armoring that does not meet standards of this code, restore native vegetation and wetlands, as well as restore the aquatic substrate. Public access may be required to be set back from restored areas with controlled access to the water's edge at locations that are less ecologically sensitive.

Aesthetics: Aesthetic objectives shall be implemented by appropriate development siting, building bulk, design standards, screening, landscaping, and maintenance of natural vegetative buffers.

5. Shoreline Isolated High-Intensity Overlay District

**Objective and Areas to be Designated:** The objective of the High Intensity Overlay – Isolated Lands overlay is to provide appropriate regulations for areas that are within shoreline jurisdiction but are with separate parcels effectively isolated from the water by intervening elements of the built environment, largely consisting of railroads and roads or intervening private parcels. In most cases, these areas function as parallel designations with other designations applied to the area adjacent to the water.

6. Aquatic Environment Overlay District

**Objective:** The objective of the Aquatic designation is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high water mark.

**Areas to be Designated:** The Aquatic Overlay District is defined as the area waterward of the ordinary high water mark of all streams and rivers, all marine water bodies, and all lakes, constituting shorelines of the state together with their underlying lands and their water column; but do not include associated wetlands and other shorelands shoreward of the ordinary high water mark.

**Management Policies:** Development within Aquatic Areas shall be consistent with the following:

- Allowed uses are those within the adjacent upland shoreline overlay, limited to water-dependent use or public access.
- New uses and over-water structures are allowed only for water-dependent uses, single-family residences, public access, or ecological restoration and only when no net loss of ecological functions will result.

- The size of new over-water structures shall be limited to the minimum necessary to support the structure's intended use. In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple-use of over-water facilities is encouraged and may be required.
- All developments and uses on navigable waters or their beds shall 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.
- Shoreline uses and modifications shall be designed and managed to prevent degradation of water quality, minimize alteration of natural conditions and processes, and result in no net loss of ecological functions
- Uses and modification of Public Aquatic Land shall incorporate public access and ecological enhancement, except where inconsistent with the operation of water-dependent uses.
- Fish and wildlife resource enhancement, including aquaculture related to fish propagation are allowed and encouraged.

## **Goals and Policies**

### **Shoreline Uses and Activities Policies**

**Objective SH-A.** Provide for use of the limited water resource consistent with the goals of the Shoreline Management Act by providing a preference for water-oriented uses.

**Objective SH-B.** Provide that the policies, regulations, and administration of the Shoreline Master Program ensure that new uses, development, and redevelopment within the shoreline jurisdiction do not cause a net loss of shoreline ecological functions.

**Objective SH-C.** Ensure that the policies, regulations, and administration of the Shoreline Master Program are consistent with the land use vision of the City's Comprehensive Plan.

**Policy SH-1.** Reasonable and appropriate shoreline uses and activities should be planned for:

1. Short-term economic gain or convenience in development should be evaluated in relationship to potential long-term effects on the shoreline.
2. Preference should be given to those uses or activities which enhance the natural functions of shorelines, including reserving appropriate areas for protecting and restoring ecological functions to control pollution and prevent damage to the natural environment and public health.
3. Provide for the following priority in shoreline use and modification of the shoreline:
  - (a) Water-dependent and associated water-related uses are the highest priority for shorelines unless protection of the existing natural resource values of such areas precludes such uses.

- (b) Water-related and water-enjoyment uses that are compatible with ecological protection and restoration objectives, provided that adequate area is reserved for future water-dependent and water-related uses.
  - (c) Multiple use developments may be allowed if they include and support water-oriented uses and contribute to the objectives of the act including ecological protection and restoration and/or public access.
  - (d) Limit non-water-oriented uses to those locations where access to the water is not provided or where the non-water-oriented uses contribute to the objectives of the Act, including ecological protection and restoration and/or public access.
  - (e) Preserve navigational qualities, and the infrastructure that supports navigation, to support water-oriented use.
4. Recognize existing single-family residential uses and neighborhood character and ensure that existing uses, new uses, and alteration of facilities:
- (a) Do not result in a net loss of shoreline ecological functions.
  - (b) Avoid disturbance of unique and fragile areas.
  - (c) Are provided with adequate public services including water, sanitary sewer, and stormwater management.
5. Future shoreline subdivision, multi-family developments, and planned urban developments of more than four units should provide public benefits, including ecological protection and restoration, and/or public or community access.
6. New residential developments should provide open space areas at or near the shoreline through clustering of dwellings.

**Policy SH -2.**

Aesthetic considerations should be integrated with new development, redevelopment of existing facilities, or for general enhancement of shoreline areas and should include:

1. Identification and preservation of areas with scenic vistas and areas where the shoreline has high aesthetic value as seen from both upland areas, areas across the water, and recreational and other uses on the water.
2. Appropriate regulations and criteria should ensure that development provides designs that contribute to the aesthetic enjoyment of the shoreline for a substantial number of people and provide the public with the ability to reach, touch, and enjoy the water's edge and view the water and shoreline.
3. Regulations and criteria for building siting, maximum height, setbacks, screening, architectural controls, sign regulations, designation of view corridors, and other provisions should ensure that development minimizes adverse impacts on views of the water from public

property or views enjoyed by a substantial number of residences.

**Policy SH -3.** All shoreline policies, regulations, and development shall recognize and protect private rights consistent with the public interest and, to the extent feasible, shall be designed and constructed to protect the rights and privacy of adjacent property owners. Shoreline uses and activities should be discouraged if they would cause significant noise or odor or unsafe conditions that would impede the achievement of shoreline use preferences on the site or on adjacent or abutting sites.

**Conservation Policies**

**Objective SH-D.** The resources and amenities of all shorelines and the ecological processes and functions they provide, such as wetlands, upland and aquatic vegetation, fish and wildlife species and habitats, as well as scenic vistas and aesthetics should be protected and preserved for use and enjoyment by present and future generations. Natural shorelines are dynamic with interdependent geologic and biological relationships. Alteration of this dynamic system has substantial adverse impacts on geologic and hydraulic mechanisms important to the function of the water body and can disrupt elements of the food chain.

**Policy SH-4.** When necessary, Shoreline modifications should emulate and allow natural shoreline functions to the extent feasible and where needed utilize bioengineering or other methods with the least impact on ecological functions.

**Policy SH-5.** Native shoreline vegetation should be conserved to maintain shoreline ecological functions and mitigate the direct, indirect and/or cumulative impacts of shoreline development, wherever feasible. Important functions of shoreline vegetation include, but are not limited to:

- Providing shade necessary to maintain water temperatures required by salmonids, forage fish, and other aquatic biota.
- Regulating microclimate in riparian and nearshore areas.
- Providing organic inputs necessary for aquatic life, including providing food in the form of various insects and other benthic macro invertebrates.
- Stabilizing banks, minimizing erosion and sedimentation, and reducing the occurrence/severity of landslides.
- Reducing fine sediment input into the aquatic environment by minimizing erosion, aiding infiltration, and retaining runoff.
- Improving water quality through filtration and vegetative uptake of nutrients and pollutants.
- Providing a source of large woody debris to moderate flows, create

hydraulic roughness, form pools, and increase aquatic diversity for salmonids and other species.

- Providing habitat for wildlife, including connectivity for travel and migration corridors.

**Policy SH-6.** Existing natural resources should be conserved through regulatory and non-regulatory means that may include regulation of development within the shoreline jurisdiction, ecologically sound design, and restoration programs, including:

1. Water quality and water flow should be maintained at a level to permit recreational use, to provide a suitable habitat for desirable forms of aquatic life, and to satisfy other required human needs.
2. Aquatic habitats and spawning grounds should be protected, improved and, when feasible, increased to the fullest extent possible to ensure the likelihood of salmon recovery for listed salmon stocks and to increase the populations of non-listed salmon stocks.
3. Wildlife habitats should be protected, improved and, if feasible, increased.
4. Unique natural areas should be designated and maintained as open space for passive forms of recreation and provide opportunities for education and interpretation. Access and use should be restricted, if necessary, for the conservation of these areas.

**Policy SH-7.** Existing and future activities on all Shorelines of the State regulated by the City of Renton should be designed to ensure no net loss of ecological functions.

**Policy SH-8.** The City of Renton should work with other responsible government agencies to assure that surface water management in all drainage basins is considered an integral part of shoreline planning.

1. Soil erosion and sedimentation that adversely affect any shoreline within the City of Renton should be prevented or controlled.
2. The contamination of existing water courses should be prevented or controlled.

**Policy SH-9** Shoreline stabilization should be developed in a coordinated manner among affected property owners and public agencies for a whole drift sector (net shore-drift cell) or reach where feasible, particularly those that cross jurisdictional boundaries, to address ecological and geo-hydraulic processes, sediment conveyance and beach management issues. Where erosion threatens existing development, a comprehensive program for shoreline management should be established.

**Policy SH-10.** Shoreline areas having historical, cultural, educational, or scientific value

should be identified and protected.

1. Public and private cooperation should be encouraged in site identification, preservation, and protection.
2. Suspected or newly discovered sites should be kept free from intrusions for a reasonable time until their value is determined.

**Policy SH-11.** Critical areas in the shoreline should be managed to achieve the planning objectives of the protection of existing ecological functions and ecosystem-wide processes and restoration of degraded ecological functions and ecosystem-wide processes. The regulatory provisions for critical areas should protect existing ecological functions and ecosystem-wide processes. In protecting and restoring critical areas within the shoreline, the City should integrate the full spectrum of planning and regulatory measures, including the comprehensive plan, interlocal watershed plans, local development regulations, and state, tribal, and federal programs.

**Policy SH-12.** The City shall implement the Restoration Plan provided as an adjunct to The Shoreline Master Program in coordination with other watershed management agencies and groups, and shall manage public lands and may acquire key properties and provide for off-site mitigation on city or other public or private sites.

**Policy SH- 13.** Preservation of natural shoreline areas can best be ensured through public or non-profit ownership and management. Therefore, where private development is proposed in areas so designated, the City should require dedication as necessary.

**Policy SH-14.** Shoreline use and development should be carried out in a manner that prevents or mitigates adverse impacts so that the resulting ecological condition does not become worse than the current condition. This means ensuring no net loss of ecological functions and processes in all development and use. Permitted uses should be designed and conducted to minimize, in so far as practical, any resultant damage to the ecology and environment (RCW 90.58.020). Shoreline ecological functions that should be protected include, but are not limited to, fish and wildlife habitat, food chain support, and water temperature maintenance. Shoreline processes that shall be protected include, but are not limited to, water flow; littoral drift; erosion and accretion; infiltration; ground water recharge and discharge; sediment delivery, transport, and storage; large woody debris recruitment; organic matter input; nutrient and pathogen removal; and stream channel formation/maintenance.

**Economic Policies**

**Objective SH-E.** Existing economic uses and activities on the shorelines should be recognized

and economic uses or activities that are water-oriented should be encouraged and supported.

**Policy SH-15.** Shoreline uses should be integrated with the land use vision of the Comprehensive Plan. Harbor areas in Renton do not have reasonable commercial accessibility and necessary support facilities such as transportation and utilities to warrant reservation for commercial ports and related uses, but may support other water-dependent uses such as a marina or passenger ferry service. Water-oriented uses should be encouraged in multiple use development to provide opportunities for substantial numbers of people to enjoy the shorelines. Multiple uses should prove a significant public benefit with respect to the Shoreline Management Act's objectives such as providing ecological restoration and/or public access to and along the water's edge.

**Policy SH-16.** Future economic uses and activities should utilize the shoreline to achieve the use and other goals of the Act and The Shoreline Master Program, including:

1. Economic uses and activities should locate the water-oriented portion of their development along the shoreline.
2. New over-water structures should be limited to water-dependent use and the length, width, and height of over-water structures should be limited to the smallest reasonable dimensions.
3. Shoreline developments should be designed to maintain or enhance aesthetic values and scenic views.

**Policy SH-17.** Shoreline facilities for the moorage and servicing of boats and other vessels may be allowed in appropriate locations within residential, commercial, and other areas, provided they are located and designed to result in no net loss of ecological functions.

1. Shared moorage is encouraged over individual single family docks.
2. Commercial docks and marinas should meet all health standards. Marinas and other economic activities should be required to contain and clean up spills or discharges of pollutants associated with boating activities.
3. Shoreline facilities for the moorage and servicing of boats and other vessels should be developed in size and location when it would not impair unique or fragile areas, or impact federal or state-listed species.

**Policy SH-18.** All economic activities on the shoreline shall provide for no net loss of ecological functions during construction and operation.

**Policy SH-19.** Festivals and temporary uses providing public benefits such as recreation or

public access, and which are compatible with ecological functions, including water quality, water flow, habitat, or unique and fragile areas, may be permitted with appropriate review and conditions.

**Public Access Policies**

**Objective SH-F.** Increase public accessibility to shorelines and preserve and improve the natural amenities.

**Policy SH-20.** Public access should be provided consistent with the existing character of the shoreline and consideration of opportunities and constraints for physical and visual access, as well as consideration of ecological functions, as provided in Policy SH-31 Table of Public Access Objectives by Reach, and in conjunction with the following policies.

**Policy SH-21.** Public access to and along the water's edge should be available throughout publicly owned shoreline areas although direct physical access to the water's edge may be restricted to protect shoreline ecological values. Public access shall be provided over all public aquatic lands leased for private activity, consistent with compatibility with water-dependent uses.

**Policy SH-22.** Public access from public streets shall be made available over public property and may be acquired by easement or other means over intervening private property.

**Policy SH-23.** Future multi-family, planned unit developments, subdivisions, commercial, and industrial developments that provide physical and visual public/community access along the water's edge should be guided by the policy provided in Policy SH-26 Table of Public Access Objectives by Reach.

**Policy SH-24.** Public access to and along the water's edge should be located, designed, and maintained in a manner that protects the natural environment and shoreline ecological functions and is consistent with public safety as well as compatible with water-dependent uses. Preservation or improvement of the natural processes shall be a basic consideration in the design of shoreline areas to which public access is provided, including trail systems.

**Policy SH-25.** When making extensive modifications or extensions to existing commercial, industrial, multi-family planned unit developments, or subdivisions, and public facilities, public/community access to and along the water's edge should be provided if physically feasible.

**Policy SH-26.** Both passive and active public areas should be designed and provided.

**Policy SH-27.** In order to encourage public use of the shoreline corridor, public parking

should be provided at frequent locations on public lands and rights of way and may be required on private development.

- Policy SH-28.** In planning for public access, emphasis should be placed on foot and bicycle paths consistent with the Renton Bicycle and Trails Master Plan, rather than roads, except in areas where public boat launching would be desirable.
- Policy SH-29.** Physical or visual access to shorelines should be required as a condition of approval for open space tax designations pursuant to RCW 84.34.
- Policy SH-30.** Development and management of public access should recognize the need to address adverse impacts to adjacent private shoreline properties and should recognize and be consistent with legal property rights of the owner. Just compensation shall be provided to property owners for land acquired for public use. Private access to the publicly owned shoreline corridor shall be provided to owners of property contiguous to said corridor in common with the public.

**Policy SH-31 Table of Public Access Objectives by Reach**

The following table outlines the policy objectives for maintaining and improving public access within the shoreline. Application of public access objectives should be considered along with other objectives of the Shoreline Management Act, such as ecological restoration and priority uses.

SHORELINE REACH	Location	Public Access Objectives
<b>Lake Washington</b>		
Lake Washington Reach A	From Bellevue city limits to Renton city limits	This developed primarily single-family area currently provides no public access. The potential for provision of public access from new development is low because further subdivision and non-single family use is not likely but should be pursued if such development occurs. Public agency actions to improve public access should include visual access from public trail development along the railroad right of way inland of the residential lots; however, views may be limited by topography and vegetation. Access to the water should be pursued at an existing undeveloped railroad right of way, including parcels used for utilities and potential acquisition of parcels, with emphasis on parcels that are not currently developed because they do not currently have roadway access.
Lake Washington Reach B	From the city limits to the Seahawks training facility	This is primarily a single-family area with one multi-family development immediately south of the Seahawks Training Center. There is currently no public access. There is a public trail along I-405, but it does not have views of the water. The potential for provision of public access from new development is low because further subdivision and non-single family use is not likely, but should be pursued if such development occurs. Public agency actions to improve public access should include visual access from trail development along the railroad right of way inland of the residential lots (however, views may be limited by topography and vegetation) and potential acquisition of opportunities for public access to the water.
Lake Washington Reach C	From the Seattle Seahawks headquarters and	This reach includes the recently constructed Seattle Seahawks headquarters and training facility to the north and the Barbee Mill site to the south. The Quendall Terminals parcel between the Seahawks and

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SHORELINE REACH	Location	Public Access Objectives
	training facility through the former Barbee Mill site.	Barbee Mill sites is a Superfund site contaminated with coal tar and creosote. There is public access along a portion of the shoreline at the Seahawks site and adjacent to May Creek at the Barbee Mill site. Public harbor lands are along about a third of the subdivision water frontage. The potential for provision of public access from new development will occur after cleanup of the Superfund site with multi-use development that should offer shoreline access across the entire property, consistent with vegetation conservation. Provision of public access from future redevelopment of the Seahawks and Barbee Mill site is possible under the existing zoning, which allows higher intensity use and provides an opportunity for continuous public access parallel to the shoreline. Public access should be provided to shared or commercial docks. Public agency actions to improve public access should include visual access from a future trail along the railroad (views may be limited to the northerly and southerly portion of the reach because of distance to the water and potential blockage by intervening buildings); enhancement of the May Creek trail to public streets; access on public aquatic lands; and potential acquisition of public access to the water.
Lake Washington Reach D	From May Creek to Mountain View Avenue	This reach is a single-family area with no public access except Kennydale Beach Park. The potential for provision of public access from new development is low because further subdivision and non-single family use is not likely but should be pursued if such development occurs. Public agency actions to improve public access should include visual access from public trail development along the railroad right of way; pedestrian and bicycle access on Lake Washington Boulevard; public viewing areas and possible public acquisition of access to the water including an existing undeveloped railroad right of way adjacent to the water; and potential public right of way and potential public acquisition of selected parcels, including undeveloped parcels with development constraints.
Lake Washington	From Mountain View	This reach is a single-family area with no existing public access. The

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SHORELINE REACH	Location	Public Access Objectives
<b>Reach E</b>	Avenue to Gene Coulon Park	potential for provision of public access from new development is low because further subdivision and non-single family use is not likely but should be pursued if such development occurs. Public agency actions to improve public access should include visual access from public trail development along the railroad right of way; pedestrian and bicycle access on Lake Washington Boulevard; public viewing areas and possible public acquisition of access to the water including an existing undeveloped railroad right of way adjacent to the water; possible public street ends; and potential public acquisition of selected parcels.
<b>Lake Washington Reach F</b>	The less developed northerly portion of Gene Coulon Park	Public access is currently provided by a trail system through the park and a variety of primarily passive recreational facilities, a fishing pier, and a moorage dock. Public access is one element of park functions that should be continued and incorporated in future plans and balanced with goals for providing recreation and improving ecologic functions. Other public agency actions to improve public access should include visual access from public trail development along the railroad right of way, and pedestrian and bicycle access on Lake Washington Boulevard including addition of public viewing areas.
<b>Lake Washington Reach G</b>	The more developed southerly portion of Gene Coulon Park	Public access is currently provided by a trail system through the park together with a variety of passive and active recreational facilities, a boat launch, over-water facilities, and concession facilities. Public access is one element of park functions that should be continued and incorporated in future plans, as well as balanced with goals for providing recreation and improving ecologic functions.
<b>Lake Washington Reach H</b>	Southport multiple use development	Public access is currently provided along the waterfront and should continue in the future as part of multi-use development of the remainder of the property. The design should include supporting water-oriented uses and amenities such as seating and landscaping.
<b>Lake Washington Reach I</b>	Boeing Plant and to the Cedar River	This reach is about one-third state-owned aquatic lands designated as Harbor Area and managed by the Washington State Department of

SHORELINE REACH	Location	Public Access Objectives
		<p>Natural Resources (DNR) and two-thirds is the Boeing Company's site. Landward of the inner harbor line, ownership is entirely the Renton Boeing Plant. Public access in this area includes the Cedar River Boathouse located on pilings in Lake Washington and accessed from the west from the Cedar River Trail. The boathouse includes a public fishing area and provides canoe and kayak rentals, classes, and guided trips. Public access is currently not feasible on the three acres of state owned aquatic lands managed by DNR. In the future, if the Boeing site is redeveloped public access should be provided, balanced with goals for ecological restoration. Public agency actions to improve public access should include a waterfront trail, which would connect the public access at the Southport development to the Cedar River Trail. This action should be implemented when environmental and security issues can be resolved, as well as public access to public lands, balanced with the goals of preserving ecological functions.</p>
<p>Lake Washington Reach J</p>	<p>Renton Municipal Airport</p>	<p>Public access to the Lake Waterfront is provided from the lawn area of the Will Rogers, Wiley Post Memorial Sea Plane Base and should be maintained if the goal of public access is not in conflict with the aeronautical use of the property. Public agency actions to improve public access should include enhancing opportunities for the public to approach the water's edge from the existing lawn area. Public access may necessarily be limited by safety and security limitation inherent in the primary use of the property for aeronautical purposes.</p>
<p>Lake Washington Reach K</p>	<p>From the Renton Municipal Airport to the Seattle city limits</p>	<p>This reach is predominantly single-family area with no existing public access. Public visual access is provided from Rainier Avenue. The potential for provision of public access from new development is likely limited to future redevelopment of a small mobile home park in the easterly portion of this reach and from redevelopment of existing multi-family uses. Public agency actions to improve public access should include enhanced public views from Rainier Avenue as well as enhanced pedestrian facilities or view points. This effort may include acquisition of several undeveloped</p>

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SHORELINE REACH	Location	Public Access Objectives
		parcels to provide access to the water's edge, consistent with goals for preservation and enhancement of ecological functions.
<b>May Creek</b>		
<b>May Creek A</b>	From the mouth of the creek to Lake Washington Boulevard	This reach is bounded by open space dedicated as part of a subdivision and includes public access provided by a trail along the creek. Public agency actions to improve public access should include enhanced public views from Lake Washington Boulevard including enhanced pedestrian facilities or view points, improved connections of the May Creek trail to public streets, and to the potential trail to the east across or under the railroad right of way and Lake Washington Boulevard.
<b>May Creek B</b>	From Lake Washington Boulevard to I-405	There is currently no public access in this reach. At the time of re-development, public access should be provided from a trail parallel to the water along the entire property with controlled public access to the water, balanced with goals of preservation and enhancement of ecological functions. Public agency actions to improve public access should include provisions to cross I-405 to connect with trail systems to the east.
<b>May Creek C</b>	From I-405 to NE 36th Street	This reach includes discontinuous public ownership with some private ownership. At the time of development of private lands, public access should be provided from a trail parallel to the water together with public agency actions to develop a trail on public land. All trail development should be set back from the water's edge with controlled public access to the water, balanced with goals of preservation and enhancement of ecological functions.
<b>May Creek D</b>	From NE 36th Street to the city limits	This reach is largely King County May Creek Park. Public access is informal and discontinuous. There are some private holdings along the creek. At the time of development of private lands, public access should be provided from a trail parallel to the water coordinated with public agency actions to develop a trail on public land. All trail development should be set back from the water's edge with controlled public access to the water, balanced with goals of preservation and enhancement of ecological

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SHORELINE REACH	Location	Public Access Objectives
functions.		
<b>Cedar River</b>		
<b>Cedar River A</b>	Mouth to Logan Avenue	A public trail is provided on the east side of the river in the Cedar River Park. No public access is provided on the west side of the river adjacent to the municipal airport. Public physical access from a trail parallel to the water should be provided if the Renton Municipal Airport redevelops in the future, balanced with goals of ecological restoration.
<b>Cedar River B</b>	Logan Avenue to I-405 bridges	A public trail is provided on the north side of the river and a variety of public access is provided on the south side, including small city parks. Public access should generally be provided within the corridor of public lands adjacent to the river; however, adjacent private parcels not separated by public streets should provide active open space and other facilities to provide gathering places to enjoy the shoreline environment, together with water-oriented uses. Revisions to the existing trail to relocate further from the water's edge to allow revegetation should be considered in the future as part of public park and river maintenance plans.
<b>Cedar River C</b>	I-405 to the SR 169	A public trail is provided on the former Milwaukee railroad. Public access is provided at a public park on the north side immediately east of I-405. Public and/or community access along the waterfront should be provided as private lands on the north side of the river redevelop, considered along with the goal of restoration of ecological functions. The single-family residential area on the north side of the river provides no public access. The potential for provision of public access from new development is low because further subdivision and non-single family use is not likely but should be pursued if such development occurs. Public agency actions to improve public access should include additional interpretive trails and trail linkages through public lands on the south side of the river, if consistent with ecological functions and public acquisition of access to the water in existing single-family areas, where appropriate.

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SHORELINE REACH	Location	Public Access Objectives
Cedar River D	SR 169 to UGA boundary	<p>A public trail is provided on the former Milwaukee railroad. It is generally at a distance from the water's edge. Most of this reach is under public ownership or dedicated open space. The primary goal for management of this reach should be ecological enhancement. Additional public access to the water's edge may be provided if consistent with ecological functions. The small residential area at the east end of the UGA provides no public access. The potential for provision of public access from new development is low because further subdivision and non-single family use is not likely but should be pursued if such development occurs. Public agency actions to improve public access should include improved visual access from the existing trail and possible public acquisition of access to the water.</p>
<b>GREEN RIVER</b>		
Green River Reach A	The Green/Black River below the pump station	<p>The area west of Monster Road provides no public access. Public physical access from a trail parallel to the water should be provided as private lands redevelop. Public agency actions to improve public access should include acquisition of trail rights to connect the Lake to Sound trail system to the Green River Trail and Fort Dent Park.</p> <p>The area west of Monster Road is part of the publicly owned Black River Forest where interpretive trails exist. Expansion of public access should occur only if consistent with ecological functions.</p>
<b>Black River / Springbrook Creek</b>		
Black/Springbrook A	From the City Limits to Grady Way	<p>The area west of Monster Road provides no public access. Public physical access from a trail parallel to the water should be provided as private lands redevelop. Public agency actions to improve public access should include acquisition of trail rights to connect the trail system to the Green River Trail and Fort Dent Park.</p> <p>The area west of Monster Road is part of the publicly owned Black River Forest where interpretive trails exist. Expansion of public access should occur only if consistent with ecological functions. Interpretive trails are</p>

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SHORELINE REACH	Location	Public Access Objectives
		<p>present in the Black River Forest. Expansion of public access should occur only if consistent with ecological functions. A trail system is present on the west side of the stream adjacent to the sewage treatment plant and should be retained and possibly enhanced.</p>
<b>Springbrook B</b>	From Grady Way to SW 16th Street	<p>A trail system is present on WSDOT right of way and crosses under I-405. Enhancement should be implemented as part of future highway improvements or other public agency actions.</p>
<b>Springbrook C</b>	From SW 16th Street to the City Limits	<p>A public trail parallel to the stream was developed as part of the Boeing Longacres Office Park and extends from SW 16th Street under Oaksdale Avenue and terminates at the alignment of 19th Street at the parking lot of a pre-existing industrial building. If future development occurs in this area, a continuous trail system connecting to the continuous system to the south should be planned, consistent with protection of ecological values of wetlands and streamside vegetation.</p> <p>There is no trail system along the stream from SW 19th Street to the approximate alignment of SE 23rd Street. A continuous trail system is provided from 23rd Street to the city limits including portions through the Springbrook Wetland Mitigation Bank. If future development occurs in the area of the missing trail link, a trail system connecting to the continuous system to the south should be planned, consistent with protection of ecological values of wetlands and streamside vegetation buffers. Public actions should include interim linkages of the existing trail systems, which may include interim trails or routing on public streets and sidewalks. In the future, if vegetation buffers are developed within the stream corridor and adjacent lands, relocation of the trail farther from the stream should be considered with controlled access to the water's edge.</p>
<p><b>Lake Desire</b> A trail system is present in public open space in parks around the lake but there is no trail system adjacent to the lake.</p>		
<b>Lake Desire</b>	Entire Lake	<p>Public access is provided by a WDFW boat launch. There is currently no formal public access to the water at the natural area at the south end of</p>

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SHORELINE REACH	Location	Public Access Objectives
		<p>the lake, nor the County-designated natural area at the north end of the lake. Interpretive access should be implemented in a manner consistent with ecological values. Existing single-family residential development provides no public access. The potential for provision of public access from new development is low because further subdivision and non-single family use is not likely but should be pursued if such development occurs. Public agency actions to improve public access should include public acquisition of access to the water where appropriate. Access for interpretive purposes may be an element of public acquisition of wetlands.</p>

**Recreation Policies**

**Objective SH-G.** Water-oriented recreational activities available to the public should be encouraged to the extent that the use facilitates the public's ability 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.

- Policy SH-32.** Water-oriented recreational activities should be encouraged.
1. Accessibility to the water's edge should be improved in existing parks and new development, substantial alteration of existing non-single family development, and intensification of existing uses where consistent with maintaining ecological functions.
  2. A balanced choice of public recreational opportunities should be provided on Lake Washington as a Shoreline of Statewide Significance that recognizes and protects the interest of all people of the state as well as Renton residents. Recreation use includes enjoyment and use of the water from boating and other activities. Shoreline park and recreation areas should be increased in size and number and managed for multiple uses including shoreline recreation and preservation and enhancement of ecological functions.
  3. Areas for specialized recreation should be developed at locations where physical and ecological conditions are appropriate.
  4. Both passive and active recreational areas should be provided.

**Policy SH-33.** Recreational boating and fishing should be supported, maintained, and increased.

**Policy SH-34.** Public agencies, non-profit groups, and private parties should use cooperative and innovative techniques to increase and diversify recreational opportunities including incorporation in development as well as public purchase of shoreland. Public agencies should establish the intent to acquire lands by incorporation of such policies in their plans and declaring public intent.

**Policy SH-35.** Public land, including city parks and public aquatic lands, should be managed to provide a balance of public recreation, public access to the water, and protection and enhancement of ecological functions.

**Policy SH-36.** Subject to policies providing for no net loss of ecological functions as well as local, state, and federal regulations, the water's depth may be changed to foster recreational aspects.

**Policy SH-37.** Provision of recreation facilities and use shall be consistent with growth projections and level-of-service standards established by the comprehensive plan.

**Circulation Policies**

**Objective SH-H.** Minimize the impacts of motor vehicular traffic and encourage non-motorized traffic within the shorelines as part of achieving no net loss.

**Policy SH-38.** Roadways within shorelines should be scenic boulevards, where possible, to enhance the scenic views of the shoreline and provide opportunities for public visual access to the shoreline. Existing arterials on the shoreline should incorporate substantial plantings of street trees or other landscaping and emphasize enjoyment of the shoreline.

**Policy SH-39.** Viewpoints, parking, trails and similar improvements should be considered for transportation system projects in shoreline areas. Bridge abutments should incorporate stairs or trails to reach streams where appropriate.

**Policy SH-40.** Public transportation should be encouraged to facilitate access to shoreline recreation areas.

**Policy SH-41.** Pedestrian and bicycle pathways, including provisions for maintenance, operation and security, should be developed.

1. Access points to and along the shoreline should be linked by pedestrian and bicycle pathways.
2. Separate pedestrian and bicycle pathways should be included in new or expanded bridges or scenic boulevards within the shorelines.
3. Separate pedestrian and bicycle pathways should be included in publicly financed transportation systems or rights of way, consistent with public interest and safety.
4. Public access provided in private development should be linked to public pathways.
5. Public access and non-motorized access to shorelines should be considered when rights of way are being vacated or abandoned.

**Policy SH-42** Rail lines within the shoreline should provide opportunities for public access and circulation:

1. The rail line along the east shore of Lake Washington should be reserved for use as a public trail if rail use ceases. If rail use continues, joint trail and rail use should be explored.
2. Rail lines adjacent to the Green River should provide means for public access across the rail lines to access shorelines and public trails where this can be accomplished safely through bridges or undercrossings.

**Policy SH-43** Trails should be developed to enhance public enjoyment of and access to the shoreline:

1. Trails within the shoreline should be developed as an element of

non-motorized circulation, of the City's Parks, Recreation and Open Space and Trails and Bicycle Master Plan and of the Shoreline Public Access program. Trails provide the potential for low impact public physical and visual access to the shoreline.

2. Trails should be developed as an element of a system that links together shoreline public access into an interconnected network including active and passive parks, schools, public and private open space, native vegetation easements with public access, utility rights of way, waterways, and other opportunities.
3. Public access to and along the water's edge should be linked with upland community facilities and the comprehensive trails system that provides non-motorized access throughout the City.
4. A system of trails on separate rights of way and public streets should be designed and implemented to provide linkages along shorelines including the Lake Washington Loop, the Cedar River, the Black/River Springbrook Creek, and the Green River.

**Policy SH-44.** Road standards should meet roadway function and emergency access standards and provide for multiple modes, while reducing impervious surfaces, where feasible, and managing surface water runoff to achieve appropriate water quality.

**Policy SH-45.** Commercial boating operations, other than marinas, should be encouraged as they relate to water-dependent uses and should be limited to commercial and industrial areas.

#### **Shoreline Historical/Cultural/Scientific/Education Resources and Activities Policies**

**Objective SH-I.** Provide for protection and restoration of buildings, sites, and areas having archaeological, historical, cultural, scientific, or educational value.

**Policy SH-46.** Sites with archaeological, historical, cultural, and scientific or educational value should be identified and protected or conserved in collaboration with appropriate tribal, state, federal, and local governments as well as private parties.

**Policy SH-47.** Such features may be integrated with other shoreline uses if appropriate to the character of the resource.

**Policy SH-48.** Include programs and interpretive areas in recreational facilities in or near identified shoreline areas with historical, cultural, educational, and scientific value.

#### **Shoreline Restoration and Enhancement Policies**

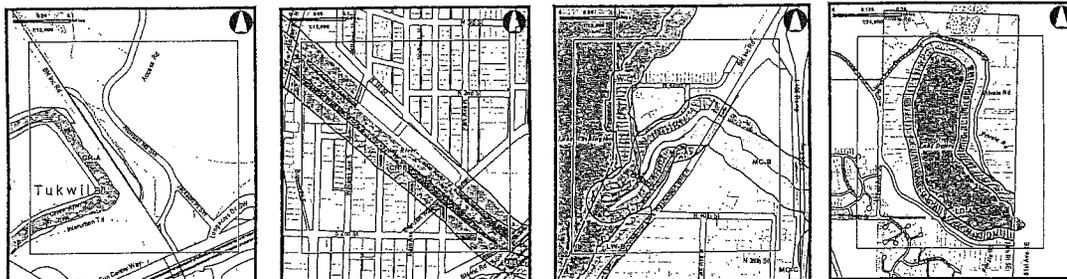
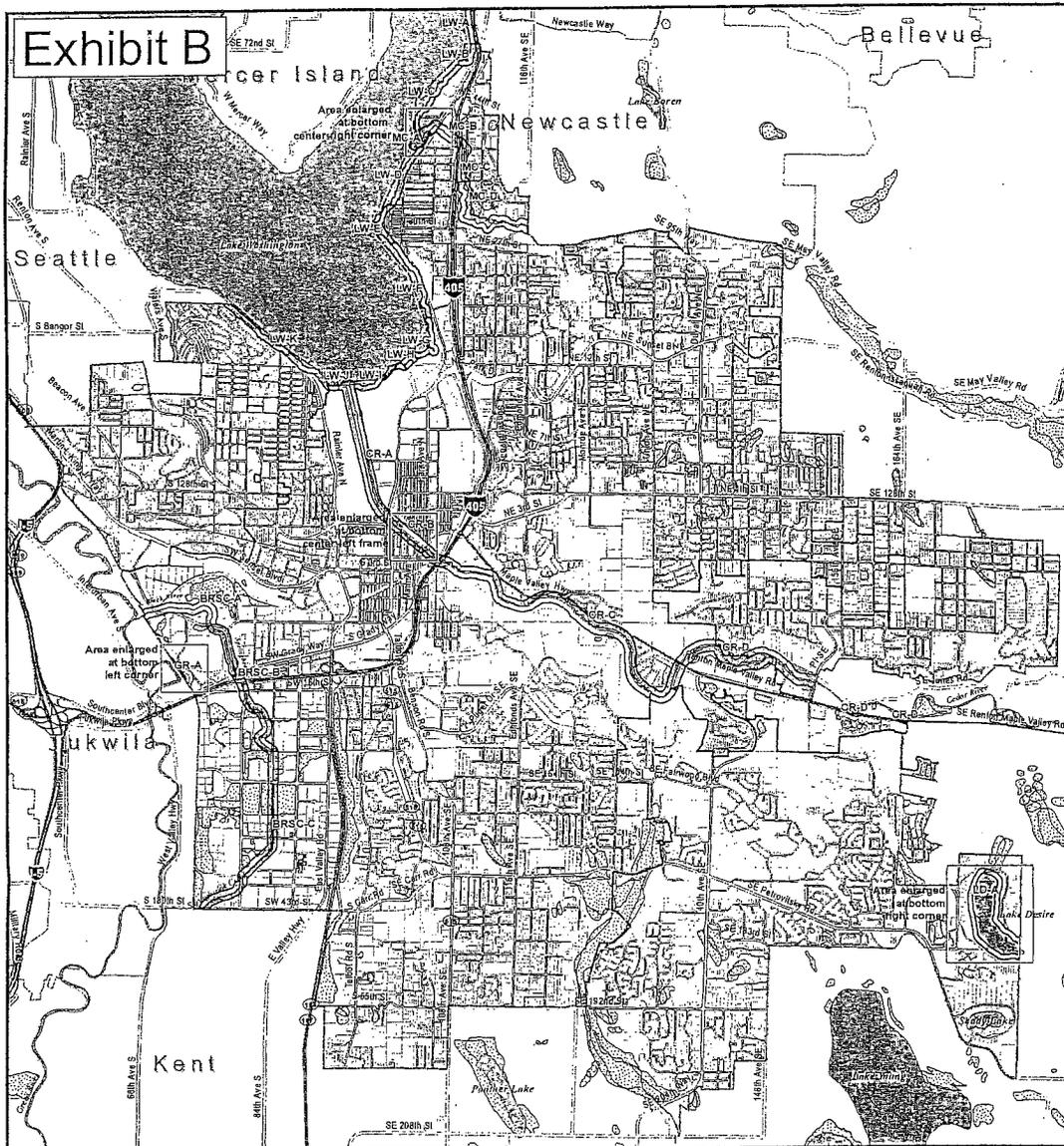
**Objective SH-J.** Provide for the timely restoration enhancement of shorelines with impaired

ecological functions. Such restoration should occur through a combination of public and private programs and actions. This Master Program includes a restoration element that identifies restoration opportunities and facilitates appropriate publicly and privately initiated restoration projects. The goal of this effort is to improve shoreline ecological functions.

**Policy SH-49.** A cooperative restoration program among local, state, and federal public agencies; tribes; non-profit organizations; and landowners should be developed to address shorelines with impaired ecological functions.

**Policy SH-50.** The restoration plan incorporated by reference into The Shoreline Master Program is based on:

1. Identification of degraded areas, areas of impaired ecological functions, and sites with potential for ecological restoration.
2. Establishment of overall goals and priorities for restoration of degraded areas and impaired ecological functions.
3. Identification of existing and ongoing projects and programs that are being implemented, or are reasonably assured of being implemented, which are designed to contribute to local restoration goals.
4. Identification of additional projects and programs needed to achieve restoration goals.
5. Identification of prospective funding sources for those projects and programs.
6. Identification of timelines and benchmarks for implementing restoration projects and programs.
7. Development of strategies to ensure that restoration projects and programs will be implemented according to plans, periodically reviewed for effectiveness, and adjusted to meet overall restoration goals.



Actual Data Source: City of Renton 2009, King County 2009 and ESA Additions.

This map depicts the approximate location and extent of areas subject to the SMP. The actual extent of shoreline jurisdiction requires a site-specific evaluation to identify the ordinary high water mark and any associated wetlands. The location of the 20 cfs limit is from USGS (1998). Floodplain and floodway extent are based on FEMA mapping and the Lower Green River Mapping Study by King County. Wetland locations are approximate and based on existing City/regional inventories; additional wetlands may be present that are not shown on the maps and some of the areas shown as wetlands may not meet the wetland criteria. This map makes no claim as to whether wetlands are associated with the shoreline or not. This map should not be used as a definitive source on associated Wetlands under Shoreline Management Act jurisdiction. Such a determination will be made on a case-by-case basis.



### Renton Shoreline Environment Overlays

City Limits	Shoreline Environment Designation	Shoreline Jurisdiction
PAA Boundary	Natural	BRSC - Black River/Springbrook Creek Reaches
Wetlands	Shoreline High Intensity	CR - Cedar River Reaches
	Shoreline Isolated High Intensity	GR - Green River Reaches
	Shoreline Single Family	LD - Lake Desire Reaches
	Urban Conservancy	LW - Lake Washington Reaches
		MC - May Creek Reaches

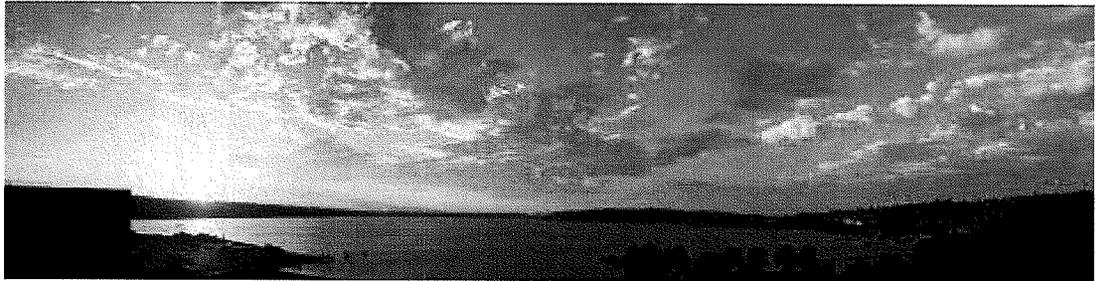
Community & Economic Development  
Alex Petach, Administrator  
Adriana Abramovich, Planning Technician II



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## EXHIBIT C

# City of Renton Shoreline Master Program Update Final Restoration Plan



*Prepared for*

**City of Renton**  
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1055 S. Grady Way  
Renton, Washington 98057

*This report was funded in part by a Grant from the Washington Department of Ecology*

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**ACRONYMS**

BRWA	Black River Watershed Alliance
DNR	Department of Natural Resources
DO	dissolved oxygen
ERP	Ecosystem Restoration Project
FCRW	Friends of the Cedar River Watershed
KCD	King Conservation District
LOS	level of service
LWD	Large Woody Debris
KCFCZD	King County Food Control Zone District
NPDES	National Pollutant Discharge Elimination System
RCW	Revised Code of Washington
RM	River Mile
SMA	Shoreline Management Act
SMP	Shoreline Management Plan
UGA	Urban Growth Areas
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WSDOT	Washington State Department of Transportation

# 1. INTRODUCTION

## 1.1 REPORT PURPOSE

The City of Renton's Shoreline Master Program (SMP) applies to activities and uses within its shoreline zone. Activities which produce adverse impacts on shoreline ecological functions must have mitigation for those impacts to assure no net loss of shoreline ecological functions. By law, development within the shoreline zone is not required to improve the affected shoreline beyond the baseline condition at the time the activity takes place. How then can shoreline ecological functions be improved over time in areas where the baseline condition is marginally, or even severely, degraded?

Section 173-26-201(2)(f) Washington Administrative Code (WAC) of the SMP Guidelines 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 non-regulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or non-regulatory programs under other local, state, and federal laws, as well as any restoration effects that may flow indirectly from shoreline development regulations and mitigation standards.

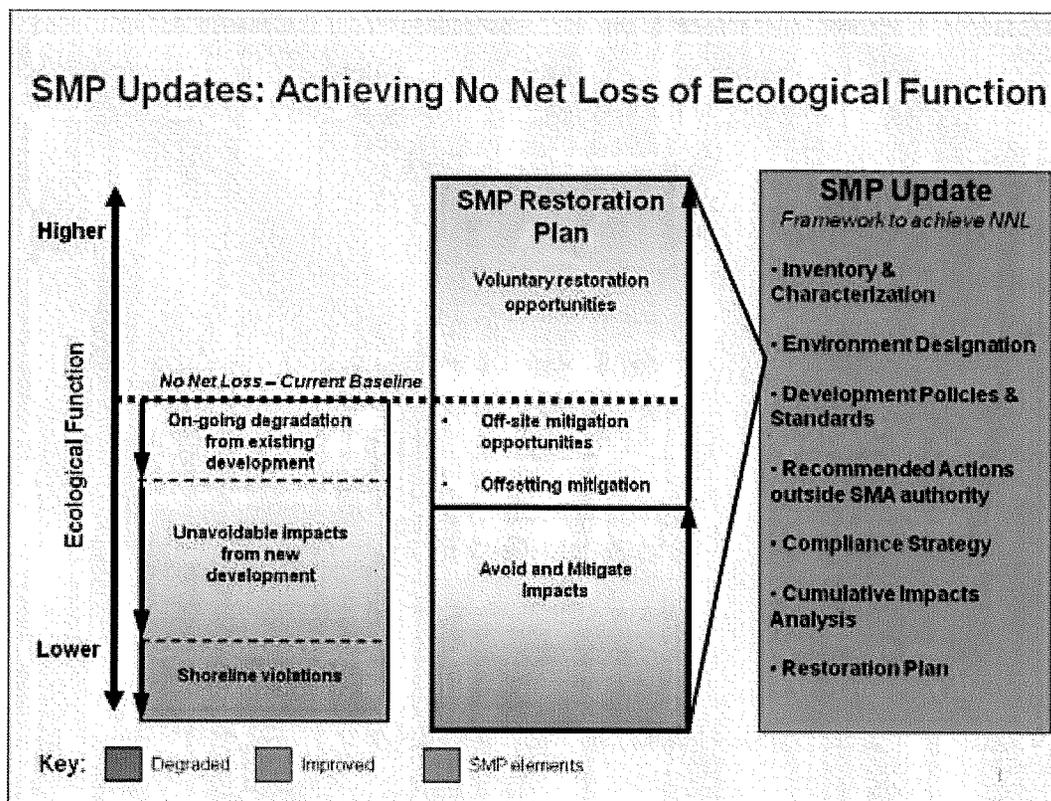
However, degraded shorelines are not exclusively a result of pre-SMP activities, but also of unregulated activities and exempt development. The new Guidelines also require that "Local master programs shall include regulations ensuring that exempt development in the aggregate will not cause a net loss of ecological functions of the shoreline" (173-26-186(8)(b)(ii) WAC). While some actions within shoreline jurisdiction are exempt from a permit, the SMP should hold that permit exempt developments must still comply with the Shoreline Management Act (SMA) or the local SMP. Because the shoreline environment is also affected by activities taking place outside of a specific local master program's jurisdiction (e.g., shoreline areas upstream of the City and otherwise outside of City limits), assembly of interlocal agreements, forums, programs, and policies can be essential for understanding how the City fits into the larger watershed framework. Watershed-wide goals and objectives are critical for the improvement of highly interconnected regional environments.

As indicated by the Guidelines, the following discussion provides a summary of existing or baseline shoreline conditions, lists restoration objectives both regionally and locally, evaluates ongoing programs and restoration projects, and provides potential restoration opportunities within the City of Renton. Lastly, implementation of restoration goals and monitoring development of ecological functions over time will allow the City's Restoration Plan to meet SMP Guidelines.

This Restoration Plan is also intended to support grant funding of restoration projects by the City and/or other non-governmental organizations as well as provide the interested public with contact information for organizations working with the City to enhance the environment.

The difference between the role of regulatory and non-regulatory programs in achieving no net loss is illustrated in conceptual form in Figure 1-1, below. Generally speaking, regulations that address development projects are designed to achieve no net loss. However,

there are exceptions to this. For example, non-water-dependent uses are required to provide public benefit in the form of public access and/or ecological restoration as addressed in WAC 173-26-241(3)(d). In general, however, restoration activities undertaken by public, private, and non-profit organizations in accordance with this plan, and other programs are expected to provide the primary source of improvements to ecological functions.



Source: Washington Department of Ecology

Figure 1-1. Role of the Restoration Plan in the SMP Update

## 1.2 CITY OF RENTON CONTEXT

City of Renton is located within the Lake Washington/Cedar River (Water Resource Inventory Area [WRIA] 8) and the Green/Duwamish River (WRIA 9) watersheds.

WRIA 8 encompasses 692 square miles (Kerwin 2001) and two major subbasins, the Sammamish River and the Cedar River, both of which flow into Lake Washington. WRIA 8 boundaries follow topographic divides between WRIA 7 (Snohomish River) to the north and east, and WRIA 9 (Green/Duwamish Rivers) and Puget Sound to the south and west (Kerwin 2001). The majority (approximately 86 percent) of WRIA 8 is in the Puget Lowlands physiographic region. The upper Sammamish drainage lies in the Cascade foothills, while the upper Cedar River drainage extends through the foothills into the Cascade Mountains. WRIA 8 has a population of about 1.5 million people, the most of any WRIA in the state.

WRIA 9 contains the Green River and its tributaries, including the Duwamish waterway/estuary, and nearby tributaries draining directly to Puget Sound. WRIA 9 is bound topographically by WRIA 8 (Lake Washington/Cedar River) to the north and WRIA 10 (Puyallup River) to the south. The Green River watershed is 462 square miles, and the river

itself stretches 93 miles from its source in the Cascade Mountains through the Cascade foothills and Puget Lowlands before emptying into Puget Sound at Elliott Bay. The population of WRIA 9 is approximately 565,000.

The City accounts for less than three percent of the geographical area and its population (80,708) is less than a half of one percent of the population of about two million within WRIs 8 and 9. The City is also located near the lower end of both WRIs. Hence, management actions taken within the City limits have a limited effect on overall watershed conditions. However, actions taken to manage reach-scale processes, such as riparian and floodplain functions, could have a larger effect on specific ecological processes and functions, particularly rearing functions of anadromous fish.

The City also lies in the lower portion of May Creek and Springbrook Creek but accounts for a much larger proportion of the total watershed area. As such, management actions for these shorelines conducted within the City may have a more substantial effect on overall watershed conditions and shoreline ecological functions.

## **1.3 SHORELINE INVENTORY**

### **1.3.1 Introduction**

The *Shoreline Inventory and Analysis Report* as part of the City of Renton's SMP will facilitate the City of Renton's compliance with the State of Washington's SMA and updated SMP Guidelines. The inventory describes existing physical and biological conditions in the shoreline area within City limits, including recommendations for restoration of ecological functions where they are degraded. A brief summary of the *Shoreline Inventory and Analysis Report* relevant to the Restoration Plan is summarized below.

### **1.3.2 Shoreline Jurisdiction**

The City's jurisdiction includes area in both WRIs, the Green/Duwamish Watershed or WRIA 9 and the Lake Washington/Cedar/Sammamish Watershed or WRIA 8. For organizational purposes, shorelines in WRIs 8 and 9 will be broken into two sections for analysis within this Restoration Plan. In WRIA 8, significant shorelines include Lake Washington, Cedar River, and May Creek titled as Cedar River/Lake Washington. In WRIA 9, significant shorelines include Green River and Springbrook Creek titled as Green River/Springbrook Creek.

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 to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom. (RCW 90.58.030)

### **1.3.3 Cedar River/Lake Washington Watershed**

The Lake Washington basin covers most of the 692 square miles contained in WRIA 8 and is populated with approximately 1.4 million people (Kerwin 2001). The City lies at the south end of Lake Washington and contains approximately 21 square miles, or three percent, of the

total watershed and less than one-half percent of the total watershed population. Lake Washington has 80 miles of shoreline, about six of which are within the Renton planning area, or about eight percent.

The Cedar River Watershed drains an area of 191 square miles, 125 square miles of which lie upstream of the City of Seattle drinking water diversion. The upper watershed is mostly second growth forest, but 16 percent of it is climax, old-growth forest. Most impervious surface in the watershed occurs in its lower, urbanized portions. The Lower Cedar River basin is primarily (90 percent) within the jurisdictional boundary of King County. The remaining jurisdictional area is within the cities of Renton (7.8 percent), Maple Valley (2.1 percent), and Kent (0.8 percent; King County 2009).

The May Creek watershed is about 8,960 acres in Renton, Newcastle, and unincorporated King County, and includes 26 miles of mapped streams, two small lakes, and over 400 acres of wetlands. The portion of the Creek in Renton includes 2.3 stream miles of shoreline planning area partitioned into four reaches. The Creek is an important salmonid stream and contains a substantial amount of protected shoreline.

### 1.3.3.1 Land Use

Land use areas within this section include the Lake Washington basin, Cedar River, and May Creek Watersheds.

According to King County Assessor's (2008) parcel data, City land-use along the Lake's shoreline is a mix of residential, industrial, parks, recreation and open space, and vacant areas with vacant land and low-density residential development representing the dominant land uses.

Thirteen of the 187 City parcels along the Lake's shoreline are either unmodified or restored including one single-family residential property on Reach E and Gene Coulon Park on Reaches F and G. Gene Coulon Park contains a combination of restored shoreline, vegetated shoreline, and some armored shoreline. Kennydale Beach Park (Reach D) contains a combination of modified and natural shoreline. The remaining 174 City parcels contain some level of "hard" armoring. This includes major commercial/industrial parcels (e.g., the Renton Boeing Plant) and private residential properties with hard armoring, moderate armoring, natural shoreline, or a combination thereof. Parcels that are completely armored with concrete bulkheads, rocks, or similar structures comprise 67 percent of the Lake Washington shoreline. The majority of these parcels occur in Reaches D, E, and K, which are developed for single or single/multi-family residential use. Losses of wetland and shoreline vegetation in the Lake is likely attributable to filling and shoreline development (Grassley 2000).

City land-use along the Cedar River shoreline is composed of a mix of residential, parks, recreation and open space, government/institutional, roadway and undeveloped lands. As a result of human development within and upstream the city, 64 percent of the lower Cedar River is modified on at least one bank, a condition which, in conjunction with decreased flows, has artificially narrowed the river's historic average width of approximately 250 feet to 110 feet. This alteration has resulted in a 56 percent reduction in water surface area, corresponding to a loss in available instream aquatic habitat (Kerwin 2001). Channelization and the disconnection of the Cedar River floodplain for flood control have affected storage of water, sediment, and contaminants, simplifying instream habitat.

Land-use patterns along the shoreline of May Creek are a mix of parks, recreation and open space, undeveloped lands, and residential. The upper, eastern portion of the basin is characterized by less dense residential and agricultural development, and includes a significant portion of the undeveloped parkland on Cougar Mountain. Above May Canyon, the Creek lies in a formerly dredged, straightened channel at the center of a wide, very low-

gradient valley. The lower, western portion of the basin is inside the Urban Growth Area (UGA; primarily within the jurisdiction of the Cities of Renton and Newcastle) is fairly dense urban residential development. About 50 percent of the basin is forested, but the amount of urban development is increasing (Kerwin 2001).

### 1.3.3.2 Nearshore and Riparian Habitat

Nearshore and riparian habitat along the Lake Washington shoreline is severely altered in nearly every reach, within the City of Renton and outside of the City limits. Residential and commercial development, including bulkheads, docks, paved areas, and landscaped yards have adversely modified most of the Lake Washington shoreline habitat. However, many of these shoreline areas continue to provide shallow water habitat at the toe of bulkheads, and some locations that do not have bulkheads. Narrow docks perpendicular to the shorelines do not appear to impede shoreline migration of young Chinook, but the fish appear to migrate around wider structures where they occur in shallow water (less than three feet deep).

Deeper nearshore habitats with rocky substrates and without vegetation appear to be preferred by smallmouth and largemouth bass. These bass may also be keying in on overwater coverage and pilings as ambush habitat. Because there is an abundance of these habitat types in the shoreline, predation opportunities that would not exist historically are likely increasing today (Kahler 2000).

Shallow water habitat along these shorelines provides important rearing habitat for juvenile Chinook as they slowly migrate from the Cedar River and rear along Lake Washington's shorelines. Those areas closest to the River are most important for this rearing function because the smallest Chinook use gently sloping, shallow shorelines for weeks to months as they gradually move away from the river mouth. Although riparian vegetation increases the refuge and prey production functions for this habitat, the shallow beaches support rearing juvenile Chinook in the absence of natural riparian vegetation (Tabor 2008).

The continuing cumulative adverse effects of bulkheads and the lack of native vegetation on near-shore processes important to a variety of aquatic species including substrate character, interflow, shallow water temperature, and the food web may be reduced in the future by the recent proposal by the Department of Natural Resources (DNR) to remove the sheet-pile outfall structure and restore the nearshore as part of an aquatic restoration program (DNR 2009) and by expansion of the Cedar River delta.

The Cedar River downstream of I-405 is an artificial channel created early in the 20th century, and is completely constrained between levees and revetments. These reaches were regularly dredged to prevent flooding from their completion in 1912 until the mid-1970s. Portions of the reaches were again dredged in 1999 for the first time since the mid-1970s. Instream habitat in these reaches is almost entirely riffle, with little habitat complexity. Land-uses prevent floodplain connectivity and have eliminated the potential for re-connection with a natural floodplain or the establishment of a riparian corridor. Channelization and existing land-uses also prevent significant large woody debris (LWD) from accumulating in the channel. Reaches A and B are also very low-gradient and depositional, and the substrates have high levels of fine sediments.

The reach between I-405 and SR 169 has a higher degree of function than downstream reaches although it is partially diked, leveed, and bulkheaded with extensive alternation on the north side (right bank) from past commercial multi-family and single family development. The south side (left bank) is almost entirely in public ownership with relatively heavy riparian vegetation, although there are some flood control revetments on the south side. The Maplewood residential neighborhood on the north side (right bank) immediately downstream of SR 169 is subject to shallow flooding in a 100-year event. In addition, an active landslide

scarp is located directly across the river from the neighborhood. The occurrence of a major landslide would block all or a portion of the channel suddenly and could force river flows across the residential area with potentially devastating results. The King County flood management plan proposes voluntary buy-out of this area since there is no reliable means to reduce long term landslide hazard.

The reach upstream of SR 169 is less constrained, allowing for the development of gravel bars and a very small degree of meandering and channel migration. At present, Reach D has a significant amount of LWD due to the landslide caused by the Nisqually Earthquake in 2001. This includes log-jams behind the Ron Regis Park, just upstream of the Elliott Spawning Channel. Most of the left bank of Reach C is deciduous forest, and the portion of Reach D adjacent to the golf course and Ron Regis Park is deciduous forest. These forested areas are generally at least 200 feet in width.

The Cedar River and May Creek delta provides a large amount of rapidly-developing, natural shallow water habitat in Lake Washington. In the past, the mouth of the River was periodically dredged for flood control. The City has no plans to dredge the delta in the future for flood control (Straka 2008). However, some dredging for the Municipal Airport float plane dock is proposed in order to restore water depths. Dredging at the mouth of May Creek was previously performed to accommodate log storage for the Barbee Mill sawmill. The natural processes at the delta have not yet developed any areas of sufficient elevation to support riparian vegetation, but they have created a large amount of shallow water habitat where young Chinook first enter the lake. Further natural expansion of the delta is likely to eventually prove a very productive complex of shallow aquatic habitat, wetlands, and uplands that together will provide for the transition between the river and lake environment that is critical to a number of species, including salmon. The May Creek Basin Action Plan supports enhancement of that delta in the policy:

In the event that the mill property on the May Creek Delta redevelops in the future, opportunities to enhance May Creek habitat and reduce the need for maintenance dredging should be explored. Although a feasibility study of this option has not been undertaken, it is possible that modifying the May Creek channel could reduce the need for maintenance dredging and provide a unique opportunity to establish an improved habitat area within the lakeshore commercial area, allowing the realization of environmental and economic benefits.

### **1.3.4 Green River/Springbrook Creek**

#### **1.3.4.1 Shoreline Inventory**

The Green River Watershed covers an area of 566 square miles, a small portion of which falls within Renton's jurisdiction. At approximately river mile (RM) 11, the Green River passes to the west of the City of Renton. None of the river channel lies within City limits, but some floodway and jurisdictional shoreline as well as significant portions of tributary basins such as the Black River/Springbrook Creek are located within City limits. Springbrook Creek is the largest subbasin in the lower Green River Basin, with a watershed area of about 15,763 acres (24.6 square miles). The creek is 12 miles long including 3.5 miles within the City.

#### **1.3.4.2 Land Use**

The lower Green River Subwatershed contains a mix of agricultural, industrial, commercial, parks/recreation/open space, roadways, and residential land uses (WRIA 9). Levees and/or revetments have been constructed along the majority of the Green River to increase bank strength and reduce flooding. Flows within the Green River have been significantly modified after the construction of Howard A. Hansen Dam and installation of water diversions. These

modifications have considerably reduced the severity of floods that historically covered much of the valley bottom. Current conditions of the Lower Green River levee and revetment system is a growing source of concern for King County and jurisdictions involved, as many of the levees are aging and would not meet current standards for either flood conveyance or stability.

Springbrook Creek is the largest subbasin in the lower Green River Basin, with a watershed area of about 15,763 acres (24.6 square miles). The basin is composed of two distinct physical settings. In the eastern half of the subbasin, rolling hills rise to elevations of about 525 feet above the valley floor. The western half of the basin is virtually flat.

All of Springbrook Creek in the City was extensively modified and straightened for agricultural drainage in the 1920s by King County Drainage District No. 1, which owns the Springbrook Creek right-of-way. The channel area from the Black River Pump Station, including Forebay area up to the Oakesdale bridge crossing just upstream of Southwest 16th Street, was improved in the 1980s and 1990s for flood control by the City in cooperation with the Natural Resource Conservation Service (formerly the Soil Conservation Service; Straka 2008).

The pump station prevents high flows in the Green River from backing up into Springbrook Creek, reducing the risk of flooding. The pump station is a barrier to salmonids upstream and downstream during certain seasons, and is in need of replacement to avoid obstructing fish passage (Kerwin and Nelson 2000).

Instream habitat in the Springbrook Creek shoreline is extremely uniform and virtually identical across reaches. The Black River Basin plan (City of Renton 1993) notes that under present conditions the lack of suitable spawning habitat and questionable rearing capacity due to degraded water quality, especially high temperatures during warm summer months, provides little usable fish habitat (Kerwin and Nelson 2000). These limiting conditions remain today. The stream is constrained and channelized throughout the shoreline. The stream gradient is very flat, sinuosity is very low, and the stream has been almost completely straightened in Reach C, reducing channel surface area (usable habitat) thereby limiting habitat creation.

Reach A has been impounded by the Black River flood control structure, and much of the reach is contained in a large pond that is prone to increased temperature and corresponding low dissolved oxygen (DO). Temperature may present a barrier for migrating salmonids. Impaired temperature and DO have degraded salmonid rearing and, in upstream reaches, have inhibited incubation. The Black River Pumping Station can act as a barrier to migration of juvenile and adult salmonids due to inadequate screening, fishway design, and operation schedule (Kerwin and Nelson 2001). The riparian corridor in this reach is primarily forested and more than 250-feet-wide on either bank. However, invasive reed canarygrass is also dominant in areas, particularly on the river's left shoreline where public access and a trail system exist.

The Black River lagoon is a large, open water and forested wetland. Another wetland complex can be found downstream surrounding the Springbrook and Panther Creek confluence. A wetland area has been preserved as part of the Longacres Business Park. The Washington State Department of Transportation (WSDOT) and the City implemented a joint, multi-site wetland mitigation bank that includes 130 acres of wetland restoration, rehabilitation, and enhancement (WSDOT 2008).

### 1.3.5 LAKE DESIRE

Lake Desire is comprised of mixed and deciduous forest interspersed with residential lots. Along the north and southeast reaches of the lake's shoreline are natural areas; the entire shoreline has medium-high ecological function for LWD quality.

Biological function is affected by residential development along the Lake Desire shoreline, but significant areas of open space exist along the north and southeast lakeshore. These areas provide important habitat and other ecological functions enhanced by their place in a larger network of natural areas. Contiguous parks and protected areas include Lake Desire Natural Area, McGarvey Park Open Space, and Petrovisky Park. These conditions help the Lake Desire shoreline sustain a high level of ecological function

Lake Desire is fed by two small tributaries, one each on the western and northern shoreline (see Map 3a). Both streams are rated in City critical areas regulations as ephemeral and non-salmonid bearing. The northern tributary flows past a wetland just upstream of its mouth. The northern wetland and stream delta are a unique hemlock-forested peatland, a highly sensitive Category I wetland (Lower Cedar River #15 in the King County Wetland Inventory) that is one of few remaining in the urbanizing Puget Sound lowlands (King Co. 1993). An area of hydric soil to the south of the Lake may be evidence of a historical wetland. Other wetlands may occur in the area that have not yet been identified or mapped.

No priority habitats are found within the Lake Desire shoreline, nor is the Lake accessible to anadromous salmonids (see Map 5a). Lake Desire has historically been stocked with non-native rainbow trout, yellow perch, pumpkinseed sunfish and largemouth bass, which all still inhabit the Lake.

Lake Desire-Spring Lake Park serves as a wildlife corridor between the two lakes. Contiguous natural upland areas ring Lake Desire to the east, north, and west, but residential development along the lakeshore presents a barrier to wildlife movement to and from the lake.

Nearshore habitat is impacted seasonally by increased phosphorus loads that cause algal blooms. In addition, the invasive Eurasian milfoil has established itself in the Lake. Both conditions alter natural habitat conditions and limit access to important shallow-water habitat.

### 1.3.6 Built Environment

#### 1.3.6.1 Existing and Planned Land-Use

##### Existing Land-Use

Land-use patterns along the shoreline of Lake Desire are a mix of low density residential (59 percent) and undeveloped lands (35 percent). Existing land-use was assessed using 2008 King County Assessor's parcel data.

##### Planned Land-Use

The City's Comprehensive Plan and zoning land-use designations in the Lake Desire shoreline planning area are low density residential (City of Renton 2008).

## 2. WATERSHED RESTORATION GOALS AND OBJECTIVES

### 2.1 PUGET SOUND PARTNERSHIP

In response to the challenges facing the Sound, in 2007 the Legislature created the Puget Sound Partnership to reverse Puget Sound's decline and restore it to health by 2020. This agency replaced the Puget Sound Action Team created in 1996, to protect and restore Puget Sound and its spectacular diversity of life now and for future generations. The Partnership has developed the following priorities in its Action Plan:

- Priority A:** Protect the intact ecosystem processes, structures, and functions that sustain Puget Sound. Avoiding problems before they occur is the best and most cost-effective approach to ecosystem health.
- Priority B:** Restore the ecosystem processes, structures, and functions that sustain Puget Sound. Protecting what we have left is not sufficient, and significant effort at an unprecedented scale is needed to undo past damage.
- Priority C:** Prevent water pollution at its source. Many of the Partnership's efforts have focused on cleaning up degraded waters and sediments, but insufficient resources have been devoted to stopping pollutants before they reach our rivers, beaches, and species.
- Priority D:** Work together as a coordinated system to ensure that activities and funding are focused on the most urgent and important problems facing the region. Many of the programs and laws now used to regulate or support activities in Puget Sound were established on a piecemeal basis to address individual problems. Strategies that will help to address problems more effectively at an ecosystem scale include improved coordination of land use planning, water supply, ecosystem protection, transportation, and species recovery plans. The Action Agenda calls for the reform of environmental regulatory programs as well as improvements to the capacity of local partners to implement actions and compliance efforts across Puget Sound.
- Priority E:** Build an implementation, monitoring, and accountability management system.

### 2.2 LAKE WASHINGTON/CEDAR RIVER (WRIA 8) SYSTEM-WIDE PRIORITIES

According to the *Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Near-Term Action Agenda for Salmon Habitat Conservation*, Lake Washington suffers from “[a]ltered trophic interactions (predation, competition), degradation of riparian shoreline conditions, altered hydrology, invasive plant species, poor water quality (phosphorus, alkalinity, pH), [and] poor sediment quality” (WRIA 8 Steering Committee 2002). 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:

- a. “Maintain, restore, or enhance watershed processes that create habitat characteristics favorable to salmon.
- b. Maintain or enhance habitat required by salmon during all life stages and maintain functional corridors linking these habitats.

- c. Maintain a well-dispersed network of high-quality refuge habitats to serve as centers of population expansion.
- d. Maintain connectivity between high-quality habitats to allow for population expansion into recovered habitat as degraded systems recover.”

### **2.2.1 Cedar River/Lake Washington Objectives**

Results from the *WRIA 8 Chinook Salmon Conservation Plan* as well as the *Cedar River Basin Plan* supports lower Cedar River and Lake Washington basin goals and objectives. These objectives aim to:

#### **2.2.1.1 Lake Washington**

- Increase native vegetation quality, width, and diversity in protected riparian corridors adjacent to stream and lake habitats to provide safe migration pathways for fish and wildlife, along with food, nest sites, shade, and organic debris.
- Decrease frequency and impact of overwater and in-water structures through minimization of structure size and use of innovative materials such as grated decking.
- Participate in lake-wide efforts to reduce invasive aquatic vegetation along lake shorelines.
- Protect and Restore water quality within tributary streams.
- Where feasible, improve riparian health along shorelines by removing bulkheads and using bioengineering or other soft shoreline stabilization techniques to improve aquatic conditions.
- Reconnect and rehabilitate small creek mouths along lake banks as juvenile rearing areas.

#### **2.2.1.2 Cedar River**

##### **Flood Damage Reduction**

- *Modify Levees and Revetments* in selected areas to reduce public maintenance costs, restore natural flood storage and help reduce flood damage system-wide.
- *Re-establish Channel Capacity of the Renton Reach* to 100-year flood discharge in order to reduce flood damages.
- *Voluntary Flood Buyouts of Residences* at locations along the mainstem to reduce flood damage and danger to residents where the most hazardous flood flows occur.
- *Provide Technical Assistance and Limited Financial Assistance* to help floodplain residents and responsible agencies reduce flood damages in the less hazardous areas and improve flood emergency communications.

##### **Aquatic Habitat**

- *Purchase Critical Habitat Sites* as part of the King County Open Space Program.
- *Restore and Enhance Aquatic Habitat* at 70 mainstem and 14 tributary sites with volunteer labor recruited for the smaller scale, labor intensive projects.

##### **Water Quality and Groundwater Protection**

- *Purchase Critical Habitat Sites* at 13 mainstem and 11 tributary sites as part of the King County Open Space Program.

- *Restore and Enhance Aquatic Habitat* at 70 mainstem and 14 tributary sites with volunteer labor recruited for the smaller scale, labor intensive projects.
- *Promote Forest Retention* using incentives for landowners to keep their land in forest uses such as tax relief and increased technical assistance.
- *Protect Steep Ravines and Slopes of the Cedar River* to prevent erosive runoff from new development through a combination of infiltration and enhanced retention/detention facilities.

## 2.2.2 Cedar River/Lake Washington Restoration Projects

Fifteen potential projects roughly within Renton's Jurisdiction are identified in the *Final Lake Washington/Cedar/Sammamish/ Watershed (WRLA 8) Chinook Salmon Conservation Plan*. The following are *Conservation Plan* site-specific Protection and Restoration projects for Lake Washington and the Cedar River respectively:

- C266 Section 1, South Lake Washington near Cedar River Mouth (Reach H-I): Shoreline Restoration of DNR Property as part of City's Sam Chisham Trail project. Remove a portion of flume (along lakeside), create shallow water habitat, protect existing cove, and plant overhanging riparian vegetation along cove.
- C267 Section 1, South Lake Washington near Cedar River Mouth (Reach H-I): Shoreline restoration between mouth of Cedar River and Gene Coulon Park; explore options with private property owners to remove bulkheads, restore shallow water habitat, and riparian vegetation.
- C268 Section 1, South Lake Washington near Cedar River Mouth (Reach J, Cedar River Reach A): Explore lowering/modifying Cedar River Delta to create more shallow water habitat, reduce bird predation for juvenile salmon by cutting trees lower.
- C269 Section 1, South Lake Washington west of Cedar River Mouth (Reach K): Explore options with homeowners to remove bulkheads, conversion of nearshore habitat to shallow beach and restore riparian vegetation. Reduce number of docks by using community docks.
- C270 Section 1, South Lake Washington near Cedar River Mouth (Reach K, D, B-A): Explore opportunities to restore small creek mouths; remove bulkheads and reduce number of docks by developing community docks throughout section 1.
- C264 Section 1, South Lake Washington within Gene Coulon Park (Reach G): Enhance mouth of Lower John's Creek; enhance lower channel to reduce predator habitat, restore riparian vegetation, and protect water quality and quantity from stormwater flows.
- C265 Section 1, South Lake Washington within Gene Coulon Park (Reach F): Enhance mouth of Kennydale Creek, remove silt, and facilitate recruitment of sand and gravel. Protect existing shallow water delta.
- C203, C204 Logan St. Bridge to I-405 (Cedar River Reach B, RM 1-1.6): Explore options to add native riparian vegetation on left bank of river and for any needed restoration plantings on the right bank. If redevelopment occurs in this reach of river, explore possibility of setting back levees and restoring riparian buffer.
- C206 I-405 to SR 169 Bridge (Reach C, RM 1.6-4.2): Riparian restoration on right bank of industrial use area likely to be redeveloped in the near future, improve riparian habitat via easement purchase for buffer and removing bank hardening.

- C207 I-405 to SR 169 Bridge (Reach C, RM 1.6-4.2): There is multifamily residential use on the right bank of the river; explore opportunities to remove impervious surface area and bank hardening on site, restore riparian buffer.
- C208 I-405 to SR 169 Bridge (Reach C, RM 1.6-4.2): Maplewood neighborhood flood buyouts and floodplain restoration, explore options to restore floodplain.
- C211 SR 169 Bridge to Upstream of Landslide (Reach D, RM 4.2-4.7): The Cedar River Basin Plan includes a potential project to restore a side channel on the right bank of the river on property owned by Maplewood Height Home Owners Association and the City across from the golf course and downstream the landslide. Channel restoration should include a flow-through channel reconnected to the Cedar at upper end for juvenile Chinook benefit.
- C212 SR 169 Bridge to Upstream of Landslide (Reach D, RM 4.2-4.7): Conifer underplanting within reach, particularly in Ron Regis Park near slide area.
- C213, C214 SR 169 Bridge to Upstream of Landslide (Reach D, RM 4.7): Protect existing riparian habitat and extensive LWD in reach. Explore using LWD and levee setback to prevent excessive erosion and flood damage to public lands associated with Ron Regis Park while protecting natural habitat forming processes. Project study should include lower Madsen Creek.

### 2.3 DUWAMISH/GREEN RIVER (WRIA 9) SYSTEM-WIDE PRIORITIES

According to the *Green/Duwamish and Central Puget Sound Watershed (WRIA 9) Near-Term Action Agenda For Salmon Habitat Conservation*, the Green/Duwamish watershed suffers from detrimental conditions for fish and fish habitat due to land use changes which have resulted in direct and indirect impacts to salmon habitat, major engineering changes to shoreline environments, and water quality which has declined due to wastewater and industrial discharges, stormwater runoff, failing septic systems and the use of pesticides (WRIA 9 Steering Committee 2002). The *WRIA 9 Near-Term Action Agenda* established three high priority watershed goals for salmon conservation and recovery:

- “Protect currently functioning habitat primarily in the Middle Green River watershed and the nearshore areas of Vashon/Maury Island.
- Ensure adequate juvenile salmon survival in the Lower Green River, Elliot Bay/Duwamish, and Nearshore subwatersheds. Meeting this goal involves several types of actions, including protecting currently functioning habitat, restoring degraded habitat, and maintaining or restoring adequate water quality and flows.
- Restore access for salmon (efficient and safe passage for adults and juveniles) to and from the Upper Green River subwatershed.”

#### 2.3.1 Lower Green River

The following habitat management strategies for the Lower Green River subwatershed, including Renton, are also taken from the *Salmon Habitat Plan: Making our Watershed Fit for a King* (Steering Committee 2005):

- In the Lower Green River, every opportunity should be taken to set back levees and revetments to the maximum extent practicable.
- Habitat rehabilitation within the Lower Green River corridor should be included in all new developments and re-developments that occur within 200 feet of the river. Rehabilitation includes:

- Installation of LWD
- Control of invasive weeds and replanting of native vegetation
- Introduction of spawning gravel in the Green River Mainstem
- Protect and restore side channels, off-channel wetlands, tributary mouths, and pools that provide shelter and habitat complexity for young salmon.
- Protect and restore natural sediment movement by reconnecting sediment sources to the river.
- Modify the Black River Pump Station to improve fish passage.

Although the *Green/Duwamish and Central Puget Sound Watershed (WRIA 9) Near-Term Action Agenda For Salmon Habitat Conservation* and the *Salmon Habitat Plan: Making our Watershed Fit for a King* are salmon-centered, pursuit of improved performance in ecosystem-wide processes and ecological functions that favors salmon generally captures those processes and functions that benefit all fish and wildlife.

### 2.3.2 Black River/Springbrook Creek

Key findings and identified habitat limiting factors in the WRIA 9 Habitat-limiting Factors and Reconnaissance Report–Part II (Kerwin 2000) include:

- Historically, it is believed that these creeks were important areas of refugia to anadromous salmonids that reared year round in the Green River basin.
- Water quality is degraded throughout much of this subbasin.
- There is no functioning riparian habitat throughout the lower reaches of Mill and Springbrook Creeks. The absence of this habitat contributes to the lack of stream channel diversity, complexity, and ultimately successful salmonid rearing capabilities.
- The Black River Pump Station is a partial fish passage barrier and does not meet current fish screening criteria. Adult salmonids that migrate upstream of this structure cannot migrate back into the mainstem Green River because of facility design.
- There are several known barriers to adult salmonid fish passage in Springbrook, Mill, and Garrison Creeks. Some of these barriers are seasonal and/or dependent on annual precipitation patterns.
- Degraded water quality throughout the lower reaches of Springbrook and Mill Creeks adversely impact adult Chinook and coho reproductive success along with coho, cutthroat, and steelhead juvenile survival.

### 2.3.3 Green River/Springbrook Restoration Projects

Restoration goals and objectives from the WRIA 9 Salmon Habitat Plan support lower Green River subwatershed areas in proximity to or within City shorelines. These goals aim to:

- Improve the health of the Green River, Springbrook Creek and additional tributary streams by identifying hardened and eroding streambanks, and correcting to the extent feasible with bioengineered stabilization solutions.
- Improve the health of the Green River by removing or setting back flood and erosion control facilities whenever feasible to improve natural shoreline processes. Where levees and revetments cannot be practically removed or set back due to infrastructure considerations, maintain and repair them using design approaches that maximize the use of native vegetation and LWD.
- Improve the health of the Green River and its tributary streams by increasing LWD recruitment potential through plantings of trees, particularly conifers, in the riparian corridors. Where feasible, install LWD to meet short-term needs.
- Where feasible, re-establish fish passage to Green River tributary streams.

Specific projects identified include:

- LG 17 Fort Dent Levee (RM 11.4-11.7): Without affecting existing soccer fields, setback the Fort Dent Levee to the maximum extent possible to create a low vegetated bench. Plant native riparian vegetation and add LWD along toe of slope and on the created bench. Rehabilitate existing banklines to create low velocity and/or shallow water habitat during juvenile migration.
- LG 18 Black River Marsh (RM 11): Rehabilitate riparian areas by establishing suitable native vegetation at the Black River confluence with the Green/Duwamish. Project would remove 200 cubic yards of fill from the left bankline of the Black River confluence just west of the railroad tracks. Other strategies include creating new off-channel habitats and/or placement of LWD along banklines.
- LG 19 Lower Springbrook Reach (RM 1): Rehabilitate riparian areas for rearing and off-channel refuge on Springbrook Creek. Approximately 4,500 feet of Springbrook would be improved with riparian plantings, LWD, pool construction, channel branch excavation and, where appropriate, modification to create a two-stage (low- and high-flow) channel.

In addition, a number of potential restoration efforts for the Black River/Springbrook Creek watershed were identified.

### **3. ONGOING PROJECTS, PROGRAMS, AND ORGANIZATIONS**

#### **3.1 CEDAR RIVER/LAKE WASHINGTON**

##### **3.1.1 WRIA 8 Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan**

The City is one of 27 members of the WRIA 8 forum, which funded and developed the *Final Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan*. The WRIA 8 *Chinook Salmon Conservation Plan* establishes goals, objectives, and programmatic and site-specific actions to address restoration of habitat critical to salmon species in the Lake Washington/Cedar River Watershed (WRIA 8 2005). Site-specific restoration sites and objectives of the WRIA 8 *Chinook Salmon Conservation Plan* are identified within the Potential Sites Section 2.2.2 of the Restoration Plan.

##### **3.1.2 King County Flood Control Zone District**

King County adopted the 2006 Flood Hazard Management Plan that identified the need for an integrated countywide flood control program through formation of a flood control zone district to address subregional flood risk and infrastructure needs on tributaries and in local jurisdictions.

In 2007, the King County Council established the King County Flood Control Zone District (KCF CZD) which included transfer of the assets of the previously-existing 10 individual flood control zone districts to the new countywide district and established a countywide tax assessment.

Current plans call for spending between \$179 million and \$335 million to implement the recommendations included in the recently adopted Flood Hazard Management Plan (King County 2007). These plans and projects include the installation of setback levees and inclusion of habitat features as part of the overall flood control project. The plan was adopted by the King County Council January 16, 2007.

Within the Flood Hazard Management Plan lies the Action Plan to address flood risk reduction needs as well as allocating grant funds. Basin-specific areas within King County are categorized based on requiring “status quo” for work that can be achieved with the current funding or “enhanced funding” for high priority needs that will require additional funding sources. A full list of Cedar River proposed actions and cost estimates can be seen below at Table 3-1 (KCFHMP 2007).

Table 3-1. 2006 King County Flood Hazard Management Plan

Proposed Actions and Cost Estimates for the Cedar River (2007-2016)			
Proposed Action	Description	Project Start Date	Estimated 10-Year Cost
Cedar River Residential Flood Hazard Mitigation Analysis	Determine best alternative(s) for reducing risks to homes in areas subject to flood hazards including both repetitive loss and proposed project areas. Emphasis will be on residential neighborhoods with extensive flood hazard areas. Supports recommendations ERA-1 through 4.	2008	\$175,000
Cedar River Channel Migration Zone Study and Mapping.	Prepare channel migration zone study and maps for the Cedar River.	2009	\$30,000
Cedar Rapids Levee Setback	Setback levee to improve flood conveyance and restore habitat. Complete project design, permits, and construction. Funding will cover project management and non reimbursable grant expenses associated with this grant funded project. Total project cost is estimated at \$1,500,000.	2009	\$137,000
Jan Road-Rutlege Johnson Levee Setbacks	Remove portions of both levees that protect only open space. Segments of existing levees constrict conveyance and direct erosive flood flows into the Cedar River Trail and State Route 169.	2009	\$955,000
Dorre Don Meanders - Phase 1 Flood Hazard Analysis	Purchase flood-prone properties in lower Dorre Don area and, where possible, modify levees to improve flood conveyance and protect residential area.	2009	\$175,000
Maplewood Acquisition and Levee Setback Phase 1	Evaluate hazard reduction options in neighborhood at risk of flooding due to landslide and rapid channel change	2009	\$116,446
Renton - Cedar River Bridge Flood Reduction Project	Reconstruct one of five bridges to an elevation above the new floodplain (protects major public infrastructure).	2014	\$667,395
Cedar Grove Mobile Home Park Acquisition Project	Purchase mobile home park and provide relocation assistance to the residents in this area of major flood hazards.	2008	\$4,349,000
Rainbow Bend Levee Setback and Floodplain Reconnection	Setback or remove levee to improve flood conveyance and storage through this reach and to restore floodplain functions.	2009	\$1,733,000
Cedar River Early Action Residential Flood Hazard Mitigation	Purchase or otherwise mitigate flood risks to nine repetitive loss properties not addressed by other projects in this basin. Supports recommendations ERA-1 and 4.	2009	\$2,811,000
Herzman Levee Setback & Floodplain Reconnection	Setback levee to reduce erosive forces on the Cedar River Trail and State Route 169.	2008	\$1,023,000
Cedar River Gravel Removal Project	Riparian enhancement, both sides of reach, Facilitate instream pool structure, habitat diversity and floodplain connections in reach.	2010	\$6,039,877
Lower Lions Club	Purchase and remove flood-prone homes.	2011	\$1,485,671

**Table 3-1. 2006 King County Flood Hazard Management Plan (continued)**

<b>Proposed Actions and Cost Estimates for the Cedar River (2007-2016)</b>			
<b>Proposed Action</b>	<b>Description</b>	<b>Project Start Date</b>	<b>Estimated 10-Year Cost</b>
Lower Jones Road Setback Project	Purchase the homes and property, set back road, and associated revetment.	2012	\$4,408,000
Maplewood Acquisition and Levee Setback Phase 2	Reduce flooding risks in neighborhood at risk of flooding due to landslide and rapid channel change.	2013	\$10,528,784
Getchman Levee Setback and Floodplain Reconnection	Setback the levee to improve river's flood conveyance, flood storage, and its interaction with lower Taylor Creek, while maintaining protection for Maxwell Road. Most of the acquisitions for this project are already completed or are underway.	-	\$2,670,000
Rhode Levee Setback and Home Buyouts	Purchase homes along path of fastest, deepest flood flow, and set back the levee to lower localized velocities and depths.	-	\$3,518,000

### 3.1.3 King County Conservation District

Between the years of 1999 and 2005, total grant money offered by the King Conservation District (KCD) totaled about \$5 million for 64 projects and actions KCD funding doubled in 2006 due to an increase in the KCD assessment from \$5 per parcel to \$10 per parcel. In 2006 and 2007, KCD grants for habitat restoration within WRIA 8 totaled approximately \$1.4 million annually and funded 15 actions each year (King County 2009). Between 1994 and 2007, the City has received \$45,978 in KCD Member Jurisdiction and WRIA Forum Grant Program Grants within the City-wide reaches of Cedar River, Lake Washington, and May Creek for the May Creek Basin Action Plan which was completed in 2001.

High priority projects and programs for WRIA 8 KCD funding are found in the *Chinook Salmon Conservation Plan* and Potential Sites Section 6.2 for Cedar River and Lake Washington Shorelines within the City.

WRIA 8 projects in-progress or completed projects funded in part by KCD Grants include:

- The Cedar Rapids - Ricardi Reach Floodplain Acquisition (C224) includes 15 acres for restoration project (C222) work and levee removal. The area is between RM 7.2-7.4 of the Cedar River mainstem and was completed 12/31/2007.
- Rainbow Bend Acquisition allows funds from the 2007 KCD Grant Cycle to purchase 20 acres of floodplain at a cost of \$1.1 million along the Lower Cedar River. The area includes most natural existing riverine and riparian habitat downstream from Maple Valley.
- The Cedar River Habitat Restoration Stewardship (2007) provides funds for planting projects and stewardship of restoration sites such as the Lions Club side-channel project.
- Lower Cedar Acquisition allows funds to purchase up to 20 acres of floodplain along the Lower Cedar River (RM 9 - 15.1) in 2008.

For a map and list of further habitat work projects made possible in part by King Conservation District grants in WRIA 8, go to: <http://hws.ekosystem.us/>

### 3.1.4 City of Renton Restoration Projects and Programs

#### 3.1.4.1 Renton Community Services Department

The Volunteer Program within the City's Community Services Department operates within many City departments and several restoration-specific regional groups. Within the City, park and recreation volunteer opportunities are available for a variety of groups based on size, commitment, and interest. Habitat restoration volunteer park projects in the past 1-2 years include:

- Cedar River Trail invasive plant removal, replanting with trees and shrubs, and litter clean-up (2008-09);
- Gene Coulon Memorial Beach Park shoreline litter clean up and invasive plant removal (2008);
- Fish Ladder/Cedar River tree planting (2008); and
- Black River Riparian Forest invasive plant removal and path restoration (2008-09).

Upcoming park restoration projects in need of volunteers can be found on the spotlight opportunities webpage: <http://rentonwa.gov/working/default.aspx?id=568>.

#### 3.1.4.2 Salmon Watchers Program

The Salmon Watchers Program provides opportunities for citizens to be involved in the care of salmon-bearing streams. During the salmon run season between September and January, volunteers record the number of salmon they witness at a selected location and the date and time of their site visits. The program serves to increase public awareness of the plight of the salmon, and indicates where habitat enhancement may be valuable. Volunteers will be trained at several locations on distinguishing the various species of salmon and trout; training is provided by the City of Renton Surface Water Utility and the King County Water and Land Resources Division.

Within Renton, volunteers can select from sites along the Cedar River and May Creek that are optimal for salmon watching. The specific locations will be safe and easily accessible. For more on the Salmon Watchers Program and volunteer opportunities, please visit the Salmon Watcher Web Site of King County Water and Land Resources:

<http://www.kingcounty.gov/environment/animalsAndPlants/salmon-and-trout/salmon-watchers.aspx>

#### 3.1.4.3 Cedar River Naturalist Program

Friends of the Cedar River Watershed (FCRW) is the non-profit whose mission is to inspire conservation and protection of a healthy Cedar River Watershed through restoration, education, and stewardship. FCRW leads the Cedar River Naturalist Program and has been active in recruiting volunteers, hosting restoration work parties within the watershed, and raising funds to help build the Cedar River Watershed Education Center. Along with restoration events, FCRW programs include:

- The Cedar River Watershed Report works in collaboration with local schools, governments, the media, and non-profit groups to engage high school leaders in a progress evaluation towards sustainability in the Cedar River Watershed.
- The Cedar River Salmon Journey stations volunteer naturalists at sites along the Cedar River to educate visitors about the journey made by salmon from the ocean, through the Ballard Locks, into Lake Washington, and on up the River to spawn.

More information and volunteer opportunities can be found at: [www.cedarriver.org](http://www.cedarriver.org)

## 3.2 GREEN RIVER /SPRINGBROOK CREEK

### 3.2.1 WRIA 9 Green/Duwamish and Central Puget Sound Watershed Salmon Habitat Plan

The importance of the Green/Duwamish Watershed as an ecosystem within the Puget Sound has resulted in considerable focus on this area in terms of restoration potential. With the federal listing of Chinook and bull trout as endangered species, watershed planning in the region (e.g., WRIA 9) has focused on developing a Salmon Habitat Plan (WRIA 9 2005). The plan establishes goals, objectives, and programmatic and site specific actions to address restoration of habitat critical to salmon species in the Green River watershed.

The City was one of 16 members of the WRIA 9 Forum, which participated in financing and developing the *Salmon Habitat Plan: Making Our Watershed Fit for a King*. The City's Shoreline Master Program update relies on the science included in the WRIA 9 *Salmon Habitat Plan* and related documents, and incorporates recommended projects and actions from the WRIA 9 documents.

### 3.2.2 King County Flood Control Zone District

King County adopted the 2006 Flood Hazard Management Plan that identified the need for an integrated countywide flood control program through formation of a flood control zone district to address subregional flood risk and infrastructure needs on tributaries and in local jurisdictions.

In 2007 the King County Council established the KCFCZD which included transfer of the assets of the previously-existing ten individual flood control zone districts to the new countywide district and established a countywide tax assessment.

Within the lower Green River Basin, KCFCZD sponsors levee improvement projects with local partnerships (KCFHMP 2007). A start list of Green River proposed actions and cost estimates from 2007-2016 generated by the 2006 King County Flood Hazard Management Plan includes five projects listed in Table 3-2:

**Table 3-2. 2006 King County Flood Hazard Management Plan**

Proposed Actions and Cost Estimates for Green River, City of Renton Vicinity (2007-2016)		
Proposed Action	Description	Estimated 10-Year Cost
Pump Station Operation	Maintain and Operate three pump stations including the Black River pump station	\$2,100,000
Green River Flood Study	Complete flood study and corresponding Federal Emergency Management Agency Flood Insurance Rate Maps for the Green River between RM 5 - 45.	\$1,000,000
Nursing Home Levee Project	Rehabilitate levees to reduce the risk of flooding in the Lower Green River.	\$2,438,000
Salmon Habitat Recovery Cost Share	Provide financial support to and participate in Salmon Recovery Funding Board and U.S. Army Corps of Engineers Ecosystem Recovery Project habitat projects.	\$1,000,000
Green River Flood Control Zone District Program Management	Provide program management and administration to Green River Flood Control Zone District projects, programs, and other related activities.	\$1,000,000

### 3.2.3 King Conservation District

The KCD is a non-regulatory natural resources assistance agency founded in 1949. The District promotes conservation through demonstration projects, educational events, providing technical assistance, and, in some cases, providing or pointing the way to funds that may be available for projects.

The WRIA 9 Forum allocates approximately \$634,000 in KCD funds annually to support habitat protection and restoration projects, stewardship projects and programs, and essential technical assessments (KCD 2009). Since 2005, high priority sites for WRIA 9 KCD funding were identified in the WRIA 9 *Habitat Plan* and *Strategic Assessment* report.

Between the years of 1994-2007, the City of Renton has been awarded a total of \$86,076 in KCD Member Jurisdiction and WRIA Forum Grant Program Grants for six projects within the City-wide reaches of Green River and Black River/Springbrook Creek. These projects include the Wetland Mitigation, Springbrook Creek, Future Stream Enhancement Project for 1994 (\$5,456) and 1995 (\$5,565); the Springbrook Creek Channel Improvement and Wetland Mitigation Project (\$11,549.19); the Black River Riparian Forest Buffer Enhancement Plan (\$3,552); the SW 34th Street Culvert Replacement Project (\$55,085); and the Black River Channel Native Plant Restoration Project PI & PII (\$4,869).

### 3.2.4 Green-Duwamish Ecosystem Restoration Project

A couple of the projects listed in the WRIA 9 Recommended Programs were originally identified by the Green-Duwamish Ecosystem Restoration Project (ERP), a cooperative effort between 17 local governments, Indian Tribes, the State of Washington, NOAA Fisheries Service, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and various other organizations and private citizens.

The ERP generated a list of 45 projects, 29 of which were ultimately incorporated into the *Salmon Habitat Plan: Making Our Watershed Fit for a King* which received nearly \$2 million in funding. As of 2005, ERP implementation funds of nearly \$2 million were provided by the federal government under the Water Resources Development Act of 2000. Of the 29 projects incorporated in the *Salmon Habitat Plan*, three are found in the Lower Green River and Springbrook Creek areas specific to the City of Renton. These projects listed numerically (LG-#) in the Plan include Fort Dent levee setback (LG-17), Black River Marsh riparian rehabilitation (LG-18), and Lower Springbrook Reach (LG-18); see full description at Potential Restoration Sites Section 6.1.2.

### 3.2.5 City of Renton Restoration Projects and Programs

#### 3.2.5.1 Renton Community Services Department

See Section 3.1.4.1 for information about the Volunteer Program within the City's Community Service Department.

#### 3.2.6 Black River Watershed Alliance

The Black River Watershed Alliance (BRWA) is an organization which coordinates a variety of restoration projects within the Black River and Springbrook Creek Watersheds. Past projects include: native plant restoration on the downstream and upstream sides of the Black River Pump Station as part of the Black River Channel Native Plant Restoration Project, Black River Riparian Forest wildlife monitoring, free class and group presentations, free school and group field trips through the forest, booths at open houses and events, and participation in the King County Clean Stream Car Wash Program (Renton 2007). Restoration work done by Black River Watershed Alliance has received support through

grants from King County matched by the City with KCD funds. With the help of volunteers, BRWA aims to:

- Protect and enhance the Black River Watershed for wildlife habitat, water and air quality, and for its historic value to indigenous people.
- Develop community awareness of the Black River Watershed through educational field trips and presentations, and restoration projects.
- Foster community stewardship of the Black River.
- Work cooperatively with other groups interested in protecting the Black River.
- Provide an opportunity for the community to connect with nature.

More information at: <http://www.blackriverwatershedalliance.com/>

### **3.2.7 Herons Forever**

Herons Forever is a non-profit organization. The Black River heron colony is one of the largest in Washington State with over 50 active nests. Herons Forever is a non-profit organization which strives to build local support to preserve, protect, and enhance the Black River Riparian Forest for wildlife habitat and aesthetic enjoyment of citizens. Herons Forever sets up volunteer work parties to help restore Blue Heron habitat through invasive plants and litter removal and has helped secure public funds to purchase nearly 60 acres of private land buffering heron nest sites by 1996.

More information at: <http://www.héronsforever.org/>

## **3.3 CITY OF RENTON CITY-WIDE ACTIONS**

### **3.3.1 Stormwater Management and Planning**

Stormwater discharge from throughout the city eventually enters surface water and enters the Lake Washington/Cedar River or Green River watersheds.

On March 31, 2008, Ecology approved the City's National Pollutant Discharge Elimination System (NPDES) Phase II permit. The NPDES Phase II permit is required to cover the City's stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach; detection and elimination of illicit non-stormwater discharges (spills, illegal dumping, wastewater); management and regulation of construction site runoff; management and regulation of runoff from new development, redevelopment and construction; and pollution prevention and maintenance for municipal operations.

Currently, Renton has approved use of the 2009 King County Stormwater Permit Design Manual along with city amendments to implement NPDES Phase II Municipal Stormwater Permit deadlines given by the Department of Ecology in 2007. Based on the implementation of the City's Storm Water Management Plan, new developments which create more than 5,000 square feet of new impervious surface trigger drainage review including off-site analyses, erosion and runoff control, and conveyance system design. This will help mitigate any further water quality degradation done to salmon bearing waters such as May Creek and Cedar River as well as nearshore riparian habitat of Springbrook Creek and Lake Washington.

Implementing NPDES Phase II flow control and surface water design standards will aid in the City's ability mitigate pollution from municipal stormwater systems into the City's streams, lakes, rivers, and wetlands.

### 3.3.2 Critical Areas Regulations

The City of Renton Critical Areas Regulations are found in Renton Municipal Code Section 4-3-050 of Chapter 3, Environmental Regulations and Overlay Districts. The City adopted a revised Critical Areas Ordinance (CAO) in 2004, consistent with other requirements of the Growth Management Act update. The updated regulations are based on “best available science,” and provide a high level of protection to critical areas in the City, particularly for streams and wetlands.

The regulations affect lands outside of Shoreline Management Act jurisdiction and address:

- Geologically hazardous areas
- Frequently flooded areas
- Critical aquifer recharge areas
- Wetlands
- Habitat conservation areas, including streams and lakes and areas associated with priority species

Provisions in the regulations generally:

- Provide for the general prohibition of alteration in those critical areas with ecological importance such as wetlands, streams, lakes, marine shorelines, and wildlife habitat areas.
- Restrict the range of allowed uses.
- Provide for buffers to either protect human health and safety (in the case of Geological Hazards) or protect ecological functions.

### 3.3.3 Parks, Recreation, Open Space, and Trails Plan

The City of Renton’s objective under this policy framework is to provide a high quality comprehensive park, recreation, open space, and trails system to meet short- and long-term needs of current and future Renton residents. The following policies concerning natural resources protection and restoration include:

**Policy P-17.** Encourage private donations of properties where public access is anticipated or planned and where consistent with the Long Range Park, Recreation, Open Space and Trails Plan.

**Policy P-41.** Steward the City’s open space network to protect the City’s natural character and sustain its urban forest resources.

**Policy P-57.** Develop inventories and management plans for open space and natural areas.

**Policy P-58.** Provide funds for native vegetation and other habitat enhancements to encourage appropriate wildlife on existing open space lands where consistent with the recreational use of the area.

**Policy P-59.** Acquire open space that has the following features:

- a. Can fill a gap or connect the existing open space network
- b. Is environmentally sensitive or unique
- c. Provides wildlife habitat
- d. Can protect natural resource areas
- e. Is archeologically significant
- f. Provides relief from urban development

**Policy P-60.** Increase public awareness of, and appreciation for, specific natural features through education and interpretive programs.

**Policy P-67.** Linkages should be provided with surrounding communities within major regional corridors such as the Cedar River, Green River, the Lake Washington Loop, and the Soos Creek Trail.

**Policy P-109.** Partner with non-profit agencies, King County, the State of Washington, the Federal government and other public and private service providers to meet the cultural, recreational, social, and environmental programs and space needs of the City.

**Policy P-116.** Coordinate with other governmental agencies and private organizations to provide a connected open space system for the City and surrounding region.

### **3.3.4 Capital Facilities Plan**

#### **3.3.4.1 Surface Water Utility**

A majority of the water quantity and quality facilities are privately owned and maintained on-site as required in accordance with the Renton Storm and Surface Water Drainage Ordinance (Renton Municipal Code Chapter 22, Section 4-22). The Surface Water Utility owns, maintains, and operates all storm and surface water management facilities located within public right-of-ways and easements dedicated for storm and surface water management purposes.

##### Level of Service (LOS) Standard in Renton

The Surface Water Utility LOS is intended to accomplish the following:

- Provide adequate of surface water management for the appropriate rainfall duration and intensity to protect public safety, property, and convenience of areas within City;
- Provide a level of storm water treatment that adequately protects surface and groundwater quality and other beneficial uses of water bodies;
- Provide flow control from new construction that restricts the rate of storm water runoff to pre-developed level; and
- Provide protection of fish and wildlife habitat.

##### Capital Facilities and Funding Plan, 2007-2012

Surface Water Utility developments include: Cedar River Basin, Springbrook Creek Wetland and Habitat Mitigation Bank, Storm System Improvement and Replacement, Springbrook Creek Improvements, and Green River Ecosystem Restoration. Budgeting costs for these items between the years of 2007-2012 will be \$8,835,000 (CFP 2008).

### 3.3.4.2 Parks

Parks and open space areas within the City provide ways for the public to interact with the natural environment. Adjacent and within sensitive shorelines, open space natural areas serve to protect existing habitat from effects of the built environment. Park and open space areas must continue to grow to match City growth as well as mitigate development impacts to wildlife habitat within sensitive shoreline areas.

The proposed LOS standard for park and open space land established for Renton in its Comprehensive Park, Recreation and Open Space plan is 18.58 acres/1,000 population. The LOS within Renton's Potential Annexation Areas is only 5.35 acres/1,000, which reduces the 2007 overall Planning Area LOS to 12.26 acres/1,000. Continued acquisition of park and open space lands will be needed as the City's residential growth continues within its existing boundaries, and as it expands into its underserved Potential Annexation Areas (CFP 2008).

### Acquisitions

Two Park types within Renton's Capital Facilities Plan cater toward open space protection and restoration:

1. Open Space Areas, defined as general open space, trail systems, and other undeveloped natural areas that includes stream corridors, ravines, easements, steep hillsides or wetlands. Often they are acquired to protect an environmentally sensitive area or wildlife habitats. In other cases they may be drainage corridors or heavily wooded areas. Sometimes trail systems are found in these areas.
  - Open Space Areas applicable to the Cedar River/Lake Washington area include: May Creek Greenway (29.82 acres), Honey Creek Greenway (35.73 acres), May Creek/McAskill (10 acres), and Cedar River Natural Area (237 acres).
  - Open Space Areas applicable to the Green River/Springbrook area includes: the Black River Riparian Forest (92 acres), Panther Creek Wetlands (73 acres), Renton Wetlands (125 acres), and Cleveland Property (23.66 acres), Springbrook Watershed (38 acres).

The majority of this park type is wetlands, steep slopes or land otherwise not suitable for recreational development.

2. Linear Parks are open space areas, landscaped areas, trail systems and other land that generally follow stream corridors, ravines or other elongated features, such as a street, railroad or power line easement. This type of park area usually consists of open space with development being very limited. Trail systems are often a part of this type of area.
  - The Linear Parks applicable to the Cedar River/Lake Washington area include: the Cedar River Trail (4.5 miles), Honey Creek Trail (1 mile), and Lake Washington Blvd (1.5 miles).
  - The Linear Parks applicable to the Green River/Springbrook area includes the Springbrook trail spanning a length of two miles.

Opportunities exist for additional linear parks along utility corridors.

### Management of Existing Parks

The city policies for management of parks provide for meeting multiple goals including both recreational use and ecological stewardship.

Opportunities for incremental changes in park management to sustain more productive shoreline resources include measures such as shifting activity areas such as picnic areas

further from the water's edge, relocating lawn areas further from the waters edge and planting and maintaining native vegetation buffers along the water. The management of waterfront park lands represents a challenge in balancing competing goals of the Shoreline Management Act of increasing public recreational use of the shoreline and protecting and enhancing ecological processes.

### **3.3.5 Private Development**

Many shoreline properties have the potential for improvement of ecological functions through:

- Management of shoreline vegetation to emphasize native species to reduce potential water quality impacts from chemicals (fertilizers, herbicides, pesticides), contribute to temperature attenuation and provide food-cycle functions;
- Reduction or modification of shoreline armoring;
- Reduction of overwater cover and in-water structures or reducing shading; and
- Reductions in impervious surface coverage and/or water quality treatment of runoff prior to discharge into surface waters.

The SMP includes requirements for removing bulkheads and similar hard shoreline structure when properties are redeveloped, including partial compliance at lower levels of redevelopment. The City could also explore administrative incentives for restoration, such as waiving some or all permit fees or providing more rapid review.

Multiple contiguous properties may be restored through grant resources that would address restoration more effectively than through lot-by-lot redevelopment.

### **3.3.6 Public Education/Outreach**

Voluntary actions by shoreline property owners are an essential element of the restoration strategy and have the potential to affect a greater extent of the property than the limited number of properties expected to redevelop in the future. The Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan includes a range of "Outreach and Education Actions" with a range of target audiences from the general public, to shoreline property owners in general, to lakeshore property owners specifically, to businesses, to youth, and others.

The City also can work with other local jurisdictions to establish a Shore Stewards program for Lake Washington, the Cedar River, and Springbrook Creek within the existing King County. Shore Steward programs provide a forum for waterfront and stream-side property owners to share ideas, information and resources and sets up guidelines for shoreline residents to preserve and enhance the shoreline environment.

## 4. RENTON RESTORATION OPPORTUNITIES & PRIORITIES

### 4.1 OVERALL CITY GOALS

The Renton SMP Restoration Plan is intended to be coordinated with other existing plans in the area, but provide additional potential project focused on opportunities identified in the SMP Inventory/Characterization.

The SMP Restoration Plan Goals are:

- 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 identification of opportunities and constraints in the SMP Inventory/Characterization together with other watershed, fish, and flood control plans as a resource to identify restoration strategies and projects.
- Use the comprehensive list of projects and other actions consistent with the Chinook Salmon Conservation Plan, and the King County Flood Management Plan as sources of potential site-specific projects.
- Coordinate land use decisions, particularly mitigation required of development projects, with the comprehensive list of project actions for coordinated implementation of the most effective restoration strategy.
- Encourage voluntary restoration by homeowners and other shoreline property owners, in addition to agency funded and project related actions as well as resource friendly daily actions such as vegetation selection and management, pesticide/herbicide use, car washing and other activities.
- Provide for management of City-owned parks and other facilities to provide for ecological restoration, along with recreation, flood control and other goals.
- Seek funding for restoration actions and programs from a variety of sources and by working with other WRIA 8 stakeholders to seek federal, state, grant and other funding opportunities.

### 4.2 LAKE WASHINGTON/CEDAR RIVER

#### 4.2.1 Restoration Priorities

Restoration of Renton's shoreline areas involves balancing ecological goals with site-specific limitations. The *WRIA 8 Chinook Conservation Strategy* and the *WRIA 8 Chinook Salmon Conservation Plan* lists an array of actions on potential restoration sites listed above that watershed partners can strive to carry out over the next decade. *Chinook Conservation Strategy* priorities for Lower Cedar River and South Lake Washington intend to:

- Protect the best remaining habitat and prevent degradation of existing high-quality habitat.
- Protect, reconnect, and/or restore off-channel habitat and shallow, mainstem habitat.
- Protect and, where feasible, restore floodplain connectivity throughout the Cedar River subarea.

- Remove bank hardening and remove or setback existing structures in the floodplain to prevent additional bank hardening.
- Protect and restore in-stream channel complexity and functional riparian conditions.
- Ensure the adequate and continual supply of suitable spawning substrate throughout the system.
- Reduce forest road runoff and fine sediments entering the mainstem and its tributaries.
- Protect and maintain flows in the mainstem and tributaries to provide suitable rearing, spawning, and migratory habitats for all salmon species.
- Enhance existing habitats: This action will improve the functioning of the existing aquatic, riverine wetland, and riparian habitats which presently exist along the Cedar River and at tributary mouths entering Lake Washington. These actions could include the removal of non-native invasive vegetation, installation of native riparian vegetation, and installation of LWD below ordinary high water mark.

#### **4.2.2 Restoration Strategy by Reach**

Tables 4-1 summarizes restoration strategies by the individual reaches identified in the Renton Shoreline Master Program Inventory and Characterization and shown in Map 1.

**Table 4-1. Shoreline Restoration Strategies by Reach**

Shoreline Reach	Location	Restoration Objectives
<b>Lake Washington</b>		
Lake Washington Reach A	From Bellevue city limits to Renton city limits	<p>This developed single-family area provides primarily lawn and ornamental vegetation at the shoreline. Opportunities for restoration to limit or reverse ongoing adverse impacts shall be through providing for native vegetation in buffers adjacent to the water and may be implemented as individual properties redevelop based on the standards related to lot depth together with replacement of shoreline armoring with soft shoreline protection incorporating vegetation.</p> <p>Educational programs to encourage voluntary replacement of ornamental vegetation with native vegetation and to replace or upgrade docks and other over-water structures has a roughly equal or better chance of affecting change as do regulatory approaches.</p> <p>There is no public land in this reach and little opportunity for public enhancement projects.</p>
Lake Washington Reach B	From the city limits to the Seahawks training facility	<p>The status of this area and restoration opportunities are similar to Reach A.</p> <p>Some opportunities may be present at the Puget Sound Energy submerged cable crossing in this reach if it is replaced in the future.</p>
Lake Washington Reach C	From the Seattle Seahawks headquarters and training facility through the former Barbee Mill site.	<p>This area provides some riparian vegetation at the Seahawks facility from previous redevelopment activity. There is a large vacant parcel with complex wetlands and some riparian vegetation in the center portion of the site that would require buffer preservation and enhancement upon redevelopment. The site is currently a superfund site and it will be important to integrate the policies and standards of the SMP as part of any cleanup program.</p> <p>Adjacent to the Barbee Mill subdivision there is a narrow replanted vegetation area on public aquatic land that has been withdrawn from leasing in recognition of the ecological restoration activities that have taken place.</p> <p>A portion of the frontage to the south is bulkheaded single family lots with pending dock applications.</p> <p>In the long term over 20 to 50 years, May Creek delta formation will lead to additional riparian area and shallow wetlands where riparian vegetation will provide multiple benefits to aquatic and terrestrial species.</p> <p>The May Creek Basin Management Plan addresses the delta in the following: “</p> <p style="padding-left: 40px;">In the event that the mill property on the May Creek Delta redevelops in the future, opportunities to enhance May Creek habitat and reduce the need for maintenance dredging should be explored. Although a feasibility study of this option has not been undertaken, it is possible that modifying the May Creek channel could reduce the need for maintenance dredging and provide a unique opportunity to establish an improved habitat area within the lakeshore commercial area, allowing the realization of environmental and economic benefits.”</p> <p>The (WRIA 8) Chinook Salmon Conservation Plan includes Project C277 Restoration of mouth of May Creek.</p> <p>In the future, public projects to develop and enhance riparian and emergent vegetation within the delta should be pursued. This may involve installation of “habitat islands” to speed the natural process of delta formation.</p>
Lake Washington Reach D	From May Creek to Mountain View Avenue	<p>This developed primarily single-family area provides primarily lawn and ornamental vegetation at the shoreline.</p> <p>The status of this area and restoration opportunities are similar to Reach A and would involve incremental improvements to vegetation, bulkheads and docks as property redevelops as well as voluntary improvements</p>

Table 4-1. Shoreline Restoration Strategies by Reach (continued)

Shoreline Reach	Location	Restoration Objectives
		<p>encouraged through education programs.</p> <p>Some opportunities may be present on short sections of shoreline presently part of the railroad right of way that may be acquired by King County.</p> <p>The City of Renton Parks Department has opportunities to naturalize the Kennydale Park water frontage through softer shoreline protection in conjunction with beach restoration and provision of shoreline native riparian vegetation.</p>
Lake Washington Reach E	from Mountain View Avenue to Gene Coulon Park	<p>This developed primarily single-family area provides primarily lawn and ornamental vegetation at the shoreline.</p> <p>The status of this area and restoration opportunities are similar to Reach A and would involve incremental improvements to vegetation, bulkheads and docks as property redevelops as well as voluntary improvements encouraged through education programs.</p>
Lake Washington Reach F	The less developed northerly portion of Gene Coulon Park	<p>This public park provides numerous opportunities for enhancement of native riparian vegetation s implemented as part of ongoing park management. This must be balanced with goals of providing public visual and physical access to the shoreline.</p> <p>This area provides opportunities for enhancement project financed by a variety of grant funds.</p> <p>Enhancement of the mouth of Kennydale Creek is enhancement Project C265 in the WRIA 8 Chinook Salmon Conservation Plan Recovery Plan</p>
Lake Washington Reach G	The more developed southerly portion of Gene Coulon Park	<p>This is the more active portion of the park with more hard surface, a boat launch ramp, over-water walkways, a swimming beach and water-oriented restaurant and recreational uses.</p> <p>Despite the amount of alteration, there are productive shoreline areas that provide opportunities for enhancement of native riparian vegetation should be implemented as part of ongoing park management. This must be balanced with goals of providing public visual and physical access to the shoreline.</p> <p>This area provides opportunities for enhancement project financed by a variety of grant funds.</p> <p>Enhancement of the mouth of Johns Creek is enhancement Project C264 in the WRIA 8 Chinook Salmon Conservation Plan Recovery Plan</p>
Lake Washington Reach H	Southport mixed-use development	<p>This site has received preliminary approvals for mixed use development. Buffers for vegetation management are not addressed in existing approvals and opportunities for public access along the waterfront and supporting water oriented uses are the designated priority.</p> <p>Enhancement of the near-shore area, including modification of the shore protection installed in the 1950s through 1970s should be a priority of both private development and public projects.</p> <p>The delta of Johns Creek also contributes sediment to this area which may contribute to restoration of some nearshore functions through natural processes.</p> <p>Options to work with private property owners to remove bulkheads and restore shallow water habitat is project C267 in the WRIA 8 Chinook Salmon Conservation Plan Recovery Plan.</p>
Lake Washington Reach I	Boeing Plant and to the Cedar River	<p>This reach of about 2,500 linear feet is about evenly divided between a vegetated area which is managed by the Department of Natural Resources (DNR) as public aquatic lands and the Boeing Renton Plant.</p> <p>Shoreline restoration of the DNR site to remove a portion of the existing flume create shallow water habitat, protect existing cove, and plant overhanging riparian vegetation along shore is project C266 in the WRIA 8</p>

Table 4-1. Shoreline Restoration Strategies by Reach (continued)

Shoreline Reach	Location	Restoration Objectives
Lake Washington Reach J	Renton Municipal Airport	<p>Chinook Salmon Conservation Plan Recovery Plan. Implementation of this program should ensure preservation of deep water areas in the adjacent Southport Development to meet the City's SMP goals for accommodating water dependent uses.</p> <p>In the future, public projects to develop and enhance riparian and emergent vegetation within the delta should be pursued. This may involve installation of "habitat islands" to speed the natural process of delta formation and is generally consistent with the WRIA 8 Chinook Salmon Conservation Plan Recovery Plan Project C267 which calls for restoring shallow water habitat.</p> <p>This reach of about 650 feet is currently entirely armored with vertical bulkheads. The airport is currently pursuing reconfiguration and dredging for the seaplane dock. As part of this program they are proposing to use dredged materials to create one or more "habitat islands" that will provide both riparian and shallow aquatic habitat and also be located to direct siltation within the Cedar River Delta to reduce the needed frequency of maintenance dredging.</p> <p>Enhanced riparian vegetation may be provided on the habitat island(s) and adjacent to bulkheaded areas with the maintenance of trees so they do not achieve a height and diameter that will provide a substantial bird roosting area that could interfere with aviation safety as part of airport management. This may be accomplished by periodic thinning to remove more mature growth.</p>
Lake Washington Reach K	From the Renton Municipal Airport to the Seattle city limits	<p>This reach of about a mile is almost entirely a developed single family neighborhood with about 600 feet of multi-family development and a trailer park. This area is designated by Renton as a future area of Commercial, Office, Residential (COR) use which provides for high intensity use. Redevelopment of this area will provide opportunities for restoration through native vegetation in buffers adjacent to the water as well as possible reconfiguration or elimination of over-water structures.</p> <p>In the single-family area there are some opportunities for providing for native vegetation in buffers adjacent to the water as individual properties redevelop based on the standards related to lot depth together with replacement of shoreline armoring with soft shoreline protection incorporating vegetation. Educational programs to encourage voluntary replacement of ornamental vegetation with native vegetation and to replace or upgrade docks and other over-water structures has a roughly equal or better chance of affecting change as do regulatory approaches.</p> <p>There is no public land in this reach and little opportunity for public enhancement projects although several undeveloped areas have the potential for acquisition for a combination of public access, preservation and enhancement.</p> <p>WRIA 8 Chinook Salmon Conservation Plan Recovery Plan Project C269 calls for working with homeowners to remove bulkheads, convert of nearshore habitat to shallow beach, restore riparian vegetation and reduce the number of docks by using community docks.</p>
<b>May Creek</b>		
May Creek A	From the mouth of the creek to Lake Washington Blvd.	<p>Restoration of the delta at the mouth of May Creek is addressed in Lake Washington Reach C.</p> <p>Vegetation in the May Creek corridor was set aside as an open space area and enhanced as part of the recent Barbee Mill subdivision. Monitoring and enforcement of vegetation establishment standards will be needed to ensure successful maturation of the vegetation .</p>

Table 4-1. Shoreline Restoration Strategies by Reach (continued)

Shoreline Reach	Location	Restoration Objectives
May Creek B	From Lake Washington Blvd to I-405	<p>This is a relatively intact reach with mature native riparian vegetation. Preservation of a buffer can be expected with future residential development.</p> <p>Planting of conifers within the buffer area in accordance with May Creek Basin Plan Recommendation 13 to supplement the existing deciduous trees will establish a mix of vegetation and over the longer term establish of forest canopy that will provide ongoing recruitment of large woody debris (LWD). As an interim measure, Recommendation 12 calls for installation of LWD to make up for an existing deficit and promote natural channel processes.</p>
May Creek C	From I-405 to NE 36th Street	<p>This section of May Creek is largely owned by Renton and King County and maintained as open space. There are several private properties that extend to the creek and have cleared vegetation up to the creek in some places.</p> <p>Acquisition of existing privately owned parcels on a willing seller basis is a priority to allow management of the stream corridor as public open space.</p> <p>Where riparian vegetation has been cleared or where it is primarily deciduous, removal of invasive species, interplanting of conifers in accordance with May Creek Basin Plan Recommendation 13 will establish a mix of vegetation and over the longer term establish of forest canopy that will provide ongoing recruitment of large woody debris (LWD). As an interim measure, Recommendation 12 calls for installation of LWD to make up for an existing deficit and promote natural channel processes.</p>
May Creek D	From NE 36th Street to the city limits	<p>This section of May Creek is largely part of the King County and maintained as open space. There are several private properties that extend to the creek and have cleared vegetation up to the creek in some places, installed bank protection and in some cases bridged the stream for access.</p> <p>Acquisition of existing privately owned parcels on a willing seller basis is a priority to allow management of the stream corridor as public open space. Properties that are acquired should be programmed for removal of bank stabilization, removal of bridges and replanting.</p> <p>Where riparian vegetation has been cleared or where it is primarily deciduous, removal of invasive species, interplanting of conifers in accordance with May Creek Basin Plan Recommendation 13 will establish a mix of vegetation and over the longer term establish of forest canopy that will provide ongoing recruitment of large woody debris (LWD). As an interim measure, Recommendation 12 calls for installation of LWD to make up for an existing deficit and promote natural channel processes.</p>
Cedar River		
Cedar River A	Mouth to Logan Avenue	<p>This reach of the Cedar River is bounded by the City of Renton Cedar River Trails park on the east and the Municipal Airport on the west.</p> <p>Within the park, opportunities for enhancement of native riparian vegetation should be implemented as part of ongoing park management. This must be balanced with goals of providing public visual and physical access to the shoreline.</p> <p>Enhanced riparian vegetation may be provided adjacent to the airport with the maintenance of trees so they do not achieve a height and diameter that will provide a substantial bird roosting area that could interfere with aviation safety as part of airport management. This may be accomplished by periodic thinning to remove more</p>

Table 4-1. Shoreline Restoration Strategies by Reach (continued)

Shoreline Reach	Location	Restoration Objectives
Cedar River B	Logan Avenue to I-405 bridge	<p>mature growth.</p> <p>Enhancement of native riparian vegetation shall be implemented as part of park management, balanced with needs of flood control levees and opportunities to provide public visual and physical access to the shoreline.</p> <p>Replacement of the North Boeing Bridge should be explored. This bridge is an obstruction to flood water. Replacement of the bridge with one that is not an obstruction may reduce the amount of dredging needed for flood control.</p> <p>Flood control dredging of the river should be coordinated with mitigation projects, including possible enhancement of the delta through habitat islands.</p> <p>Enhancement of native riparian vegetation shall be implemented as part of flood control management programs that may be integrated with and opportunities to provide public visual and physical access to the shoreline. Vegetation management and public access should be addressed in a comprehensive management plan prior to additional flood management activities.</p> <p>The existing public walkway near the water should be considered for relocation to the top of the bank and the streambank revegetated with native species.</p> <p>Within the city owned land, including the senior center, the park maintenance facility, Jones Park and Liberty Park, opportunities for enhancement of native riparian vegetation should be implemented as part of ongoing park management. This must be balanced with goals of providing public visual and physical access to the shoreline.</p> <p>Exploring options to add native riparian vegetation on left bank of river is Project C 203 in the WRIA 8 Chinook Salmon Conservation Plan Recovery Plan Project C267 which calls for restoring shallow water habitat.</p> <p>Project C 210 notes that Renton's three riverside parks (Liberty, Cedar River Park, NARCO property) are going through re-master planning and suggests pursuing opportunities to move some of more active recreation uses to protect habitat with more passive recreational uses along the water.</p>
Cedar River C	I-405 to the SR 169	<p>Within the city owned land, including the Cedar River Park on the north site (right bank) and public open space on the south side (left bank) opportunities for enhancement of native riparian vegetation should be implemented as part of ongoing park management. This must be balanced with goals of providing public visual and physical access to the shoreline.</p> <p>Enhancement of native riparian vegetation and removal or replacement of bank armoring can be expected to be implemented upon redevelopment of private property on the north shore.</p> <p>In the Maplewood neighborhood downstream of SR 169 the WRIA 8 Chinook Salmon Conservation Plan Recovery Plan Project C208 calls for possible flood buyouts in this neighborhood and pursuit of opportunities to restore the floodplain as well as options for bioengineering and softening bank hardening. The King County Flood Management Plan calls for voluntary buy-out of this area because more than half the neighborhood would be inundated by shallow flooding in a 100-year event and an active landslide scarp poses risk of a major landslide that could block all or a portion of the channel, and could potentially redirect the flow of the river into the residential area.</p> <p>In the single-family areas there are some opportunities for providing for native vegetation in buffers adjacent to the water as individual properties redevelop based on the standards related to lot depth together with replacement of shoreline armoring with soft shoreline protection incorporating vegetation. Educational programs</p>

Table 4-1. Shoreline Restoration Strategies by Reach (continued)

Shoreline Reach	Location	Restoration Objectives
Cedar River D	SR 169 to UGA boundary	<p>to encourage voluntary replacement of ornamental vegetation with native vegetation and to replace or upgrade docks and other over-water structures has a roughly equal or better chance of affecting change as do regulatory approaches.</p> <p>This reach of a little more than a mile is largely in public ownership. The few residential parcels are designated for voluntary buy-outs in the King County Flood Management Plan. There are several mitigation projects in this area including rearing channels constructed by King County, Renton and the Corps of Engineers, although some have been damaged by recent floods. This reach should be the subject of a comprehensive restoration plan.</p> <p>The WRIA 8 Chinook Salmon Conservation Plan Recovery Plan calls for Project C212 to provides for conifer interplanting in forested riparian areas within reach, while noting concern raised that under natural conditions forested riparian areas in the lower Cedar River may have been primarily deciduous; Project C213 calls for existing riparian habitat, instream habitat conditions and extensive LWD in reach; Project C214 4 1 proposes a study of options to protect habitat in this reach and reduce flooding and erosion in Ron Regis Park: including exploration of LWD installation and levee setbacks to prevent excessive erosion and flood damage to Ron Regis Park while allowing natural habitat forming processes</p>

## 4.3 GREEN/SPRINGBROOK

### 4.3.1 Priorities

Proposed Actions by the *Green/Duwamish and Central Puget Sound Watershed Salmon Habitat Plan* include projects to protect, restore, rehabilitate, or substitute habitat or the processes that create habitat.

The Plan recommends an array of projects such as the potential restoration sites listed above that watershed partners can strive to carry out over the next 10 years. Lower Green River and Springbrook Creek, in accordance with the *WRIA 9 Salmon Habitat Plan* proposed actions intend to:

- Protect existing processes and habitats that are working well;
- Restore processes and habitats that can be returned to good conditions;
- Rehabilitate damaged processes and habitats that can be sustained with on-going efforts; and
- Substitute processes and habitats that are lost.

### 4.3.2 Restoration Strategy by Reach

Tables 4-2 summarizes restoration strategies by the individual reaches identified in the Renton Shoreline Master Program Inventory and Characterization and shown in Map 1.

**Table 4-2. Shoreline Restoration Strategies by Reach**

Shoreline Reach	Location	Restoration Objectives
<b>Black River Reach A</b>	The Black River/Springbrook to Grady Way	<p>There are opportunities to provide native vegetation buffers at such time as private property downstream of Monster Road redevelops.</p> <p>Vegetation preservation and enhancement should be encouraged in areas of railroad right of way not devoted to transportation uses. Expansion of railroad facilities may require specific vegetation preservation and enhancement programs.</p> <p>The retrofitting or reconstruction of the Black River Pump Station to improve fish passage is a long term goal identified in the WRIA 9 Habitat-limiting Factors and Reconnaissance Report but is likely to be very expensive.</p> <p>The WRIA 9 Salmon Habitat Plan Project LG 18 calls for rehabilitation of riparian areas in the Black River Marsh by and removing fill from the left bank of the Black River confluence just west of the railroad tracks. Other strategies include creating new off-channel habitats and/or placement of LWD along banks.</p>
<b>Black/Springbrook B</b>	From Grady Way to SW 16 <sup>th</sup> Street	<p>This section of the stream is bridged by Grady Way and I-405.</p> <p>Improvements to the stream channel and riparian vegetation should be implemented in conjunction with road improvement and maintenance programs.</p>
<b>Springbrook D</b>	From SW 16th Street to City Limits.	<p>Vegetation enhancement should be implemented within the drainage district channels in conjunction with management plans including adjustments to channel dimensions to assure continued flood capacity with the additional hydraulic roughness provided by vegetation. Vegetation management should retain a continuous trail system that may be relocated further from the stream edge.</p> <p>When adjacent land redeveloped vegetated buffers should be provided that will integrate with re-vegetation of the stream channel.</p> <p>Additional plans should be pursued for wetland rehabilitation including relocating existing flood control levees to be outside of adjacent wetlands to allow more natural floodplain characteristics.</p> <p>The WRIA 9 Salmon Habitat Plan Project calls for rehabilitation of areas for rearing and off-channel refuge on Springbrook Creek including riparian plantings, LWD, pool construction, channel branch excavation and, where appropriate, modification to create a 2-stage (low- and high-flow) channel.</p>
<b>Lake Desire</b>		<p>For the entire lake, implement phosphorus controls including phosphorus treatment from new development runoff, lake aeration and encouraging replacement of ornamental vegetation with native vegetation requiring less fertilizer and therefore producing less phosphorus in runoff.</p>
<b>Lake Desire A</b>	17408 West Lake Desire Dr. SE to 18228 West Lake Desire Dr. SE	<p>This developed primarily single-family area provides primarily lawn and ornamental vegetation at the shoreline. Opportunities for restoration to limit or reverse ongoing adverse impacts shall through providing for native vegetation in buffers adjacent to the water may be implemented as individual properties redevelop based on the standards related to lot depth together with replacement of shoreline armoring with soft shoreline protection incorporating vegetation.</p>

Table 4-2. Shoreline Restoration Strategies by Reach (continued)

Shoreline Reach	Location	Restoration Objectives
Lake Desire B	18228 West Lake Desire Dr. SE to the Natural Area at the south end of the Lake	<p>Educational programs to encourage voluntary replacement of ornamental vegetation with native vegetation and to replace or upgrade docks and other over-water structures has a roughly equal or better chance of affecting change as do regulatory approaches.</p> <p>There is no public land in this reach and little opportunity for public enhancement projects.</p> <p>Shoreline vegetation enhancement should take place at the WDFW boat launching site balancing values of riparian vegetation with public access.</p>
Lake Desire C	Natural Area at the south end of the Lake	Existing shoreline vegetation in this publicly owned natural area should be preserved with some accommodation for interpretive access to the water s as part of park management plans, subject to the primary objective of protecting ecological functions.
Lake Desire D	From the Natural Area to 17346 West Lake Desire Dr. SE	<p>Same as reach A for developed single family lots.</p> <p>For the Urban Conservancy area at the top of the lake, private lots should be targeted for acquisition and preservation.</p>

## **5. PROJECT IMPLEMENTATION AND MONITORING**

As noted in the Shoreline Inventory section of this report, the City's shoreline area is occupied by industrial, commercial, multi- and single-family residences, and parks/recreation/open space areas. To ensure that restoration goals are being achieved, it is important for the City to evaluate the effectiveness of this plan and to adapt to changing conditions. Under WAC 173-26- 201(2)(f)(vi), the development of a jurisdiction's SMP must, "Provide for mechanisms or strategies to ensure that restoration projects and programs will be implemented...in meeting the overall restoration goals." To remain consistent with restoration framework and guidance for SMP development, project implementation and monitoring will survey available funding sources, project timelines and benchmarks, and document progress of restoration projects.

### **5.1 FUNDING OPPORTUNITIES**

Achievements of present restoration projects and restoration planning processes are made evident through existing partnerships with agencies and organizations. Restoration efforts are implemented because local citizens, non-governmental organizations, tribes, the City, state, and federal resource agencies form partnerships to collaborate and problem solve, sharing the responsibility of each project. For projects near or within City-limits, the greatest likelihood of funding would result from continued participation in the WRIA 8 and 9 forums as well as partnering with King County and state and federal agencies. A list of potential funding sources can be found in Table 5-1 below.

Table 5-1. Funding Opportunities

Organization	Grant/Funding Information
U.S. Army Corps of Engineers Basinwide Restoration New Starts General Investigation Bruce Sexauer P.O. Box 3755 Seattle, WA 98134 (206) 764-6959	Cost-share assistance for fish and wildlife projects, flood management, general restoration of riparian areas. Chief funder of the Green-Duwamish Ecosystem Restoration Project
US Fish & Wildlife Service Nell Fuller 911 NE 11th Avenue Portland, OR 97232 (503) 231-2014 Nell_Fuller@fws.gov	Funds and assists in the North American Wetlands Conservation Act Grants Program and several fish passage programs including a barrier culvert removal or replacement program.
Environmental Protection Agency Region 10: Pacific Northwest Grant Administration Unit Bob Philips Philips.bob@epa.gov	Funds projects ranging from protecting the natural environment, including wetlands, restoration, and stewardship work related to Section 404 of the Clean Water Act.
Washington State Department of Ecology <a href="http://www.ecy.wa.gov/programs/wq/plants/grants/index.htm">www.ecy.wa.gov/programs/wq/plants/grants/index.htm</a>	Funding sources including low-interest loans and grants for improving Washington state water quality as well as prevention and control of non-native aquatic plants.
Washington Department of Fish and Wildlife <a href="http://wdfw.wa.gov/volunter/vol-7.htm">http://wdfw.wa.gov/volunter/vol-7.htm</a>	Grants for financial assistance for private landowners taking action to restore habitat and help preserve threatened species. Local stewardship programs which participate in repairing fish and wildlife habitat.
Salmon Recovery Funding Board (SRFB) <a href="http://www.rco.wa.gov/">http://www.rco.wa.gov/</a>	Grants from the Salmon Recovery Funding Board range from \$10,000 to \$900,000 in years past for organizations in 28 counties. In 2008, two WRIA 8 projects including Lower Cedar River Acquisition received \$481,507 in grant funding and three WRIA 9 projects received \$363,725.
King County Flood Control District <a href="http://www.kingcountyfloodcontrol.org">http://www.kingcountyfloodcontrol.org</a>	Current plans to spend \$335 million to implement 2006 Flood Hazard Management. Plans for levee setback and removal for Cedar and Green River, flood buyouts in progress for Cedar floodplain areas.
King Conservation District <a href="http://www.kingcd.org/pro_gra.htm">http://www.kingcd.org/pro_gra.htm</a>	WRIA 8 Steering Committee allocates roughly \$1.3 million in KCD Grants annually since 2006. 67% or \$890,000 of the annual budget in 2007 going to Site-Specific restoration and protection projects along lower and middle Cedar River reaches. WRIA 9 Forum receives \$634,000 in KCD funds annually to support habitat protection and restoration projects identified in the watershed Habitat plan and Strategic Assessment.
King County Dept of Natural Resources and Parks Ken Pritchard Grant Exchange Coordinator (206) 296-8265 <a href="mailto:ken.pritchard@kingcounty.gov">ken.pritchard@kingcounty.gov</a>	King County Water Quality Grant Fund. Grants of up to \$60,000 are available for restoration and protection of watersheds, streams, rivers, lakes, and tidewater.
Community Salmon Fund est. by National Fish & Wildlife Foundation (NFWF) and Salmon Recovery Funding Board (SRFB)	Habitat protection and restoration project grants of up to \$75,000 consistent with local salmon habitat plans. The program focuses on smaller community based restoration projects to support salmon recovery on private property in cooperation with businesses and landowners. Grants

**Table 5-1. Funding Opportunities (continued)**

Organization	Grant/Funding Information
Ducks Unlimited Matching Aid to Restore Habitat (MARSH) (916) 852-2000 <a href="mailto:conserve@ducks.org">conserve@ducks.org</a>	requests in the \$10,000-\$20,000 range are strongly encouraged.  Matching funds for habitat restoration and enhancement projects, helps develop and preserve waterfowl habitat.

## 5.2 BENCHMARKS AND MONITORING

As a long-range policy plan, the SMP guidelines include the goal that local master programs "...include planning elements that, when implemented, serve to improve the overall condition of habitat and resources within the shoreline area" (WAC 173-26-201(c)). To establish the SMP benchmark for implementation effectiveness, the legislature provided a timeframe for jurisdiction amendments to the SMP. In 2003, Substitute Senate Bill 6012 amended the Shoreline Management Act (RCW 90.58.080) to establish an amendment schedule requiring that "Local governments shall conduct a review of their master programs at least once every seven years after the applicable dates... [and] if necessary, revise their master programs (RCW 90.58.080 (4))."

The 7-year period starts once the City of Renton amends its SMP on or before December 1, 2009 (RCW 90.58.080 (4)(II)). While the review period is taking place, an ongoing assessment of project successes and limitations must still occur as restoration projects are planned and implemented within the City. A restoration framework developed in part by Palmer et al (2005) provides several tasks for assessing restoration actions and revising the planning process to meet restoration goals. The following actions include:

- Adaptively manage restoration projects;
- Summarize restoration progress including grant applications and funds secured;
- Monitor post-restoration conditions;
- Revise the planning process to reflect changes in objectives and policy re-evaluation; and
- Use monitoring and maintenance results to inform future restoration activities.

To document progress toward restoration goals regionally within WRIAs 8 and 9 and locally within the City, annual assessments should occur to determine how well restoration criteria are met and how effectively the goals of this restoration plan are achieved. Although implementation may be resource- and time-intensive, its overall impact is significant due to the potential amount of affected shorelines. With grant aid available to projects of various scales, the improvement of ecological function outweighs the direct cost of shoreline protection or restoration, making it increasingly feasible to carry out implementation.

## 6. CONCLUSIONS

As part of the Shoreline Master Program update process, the purpose of the Restoration Plan is to help improve shoreline function over time (WAC 173-26-201(2)(f)). This restoration plan gives the City of Renton a framework with which to pursue ecosystem functioning within both the Green/Duwamish River and Lake Washington/Cedar River Watersheds. In time, restoration actions outlined in this document will be implemented and results under the guise of the City's Restoration Plan within the Shoreline Master Program will be under way.

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