

DRAFT REPORT

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

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SHORELINE MASTER PROGRAM UPDATE SHORELINE RESTORATION PLAN

1. INTRODUCTION

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

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

“master programs shall include goals and policies that provide for restoration of such impaired ecological functions. These master program provisions shall identify existing policies and programs that contribute to planned restoration goals and identify any additional policies and programs that local government will implement to achieve its goals. These master program elements regarding restoration should make real and meaningful use of established or funded nonregulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or nonregulatory programs under other local, state, and federal laws, as well as any restoration effects that may flow indirectly from shoreline development regulations and mitigation standards.”

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

As directed by the Guidelines, the following discussions provide a summary of baseline shoreline conditions, lists restoration goals and objectives, and discusses existing or potential programs and projects that positively impact the shoreline environment. Finally, anticipated scheduling, funding, and monitoring of these various comprehensive restoration elements are provided. In total, implementation of the Shoreline Master Program (with mitigation of project-related impacts) in combination with this Restoration Plan (for restoration of lost ecological

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

functions that occurred prior to a specific project) should result in a net improvement in the City of Covington's shoreline environment in the long term.

In addition to meeting the requirements of the Guidelines, this Restoration Plan is also intended to support the City's or other non-governmental organizations' applications for future grant funding to implement elements of this Restoration Plan.

2. SHORELINE INVENTORY SUMMARY

2.1 Introduction

The City conducted a comprehensive inventory of its shoreline jurisdiction in 2008. The purpose of the shoreline inventory was to facilitate the City of Covington's compliance with the State of Washington's Shoreline Management Act (SMA) and updated Shoreline Master Program Guidelines. The inventory describes existing physical and biological conditions in the shoreline zone within City limits, including recommendations for restoration of ecological functions where they are degraded. The full *Shoreline Analysis Report* is included as an appendix to the Shoreline Master Program, and is summarized below.

2.2 Shoreline Boundary

As defined by the Shoreline Management Act of 1971, shorelines include certain waters of the state plus their associated "shorelands." Shorelands are defined as:

"those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter...Any county or city may determine that portion of a one-hundred-year-floodplain² 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)"

In addition, rivers or streams with a mean annual flow of 20 cfs or more are considered shorelines of statewide significance.

Shorelands in the City of Covington include only areas within 200 feet of the ordinary high water mark of shoreline jurisdiction waters and any associated wetlands within shoreline jurisdiction. The floodway of Big Soos Creek is encompassed entirely within the associated wetland boundary. Waters identified within jurisdiction include portions of Big Soos Creek, portions of Jenkins Creek, and the portion of Pipe Lake located within the City limits.

² According to RCW 173-220-030, 100-year floodplain is "that land area susceptible to being inundated by stream derived waters with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulation maps or a reasonable method which meets the objectives of the act;"

2.3 Inventory

The shoreline inventory is divided into seven main sections: Introduction, Current Regulatory Framework Summary, Elements of the Shoreline Inventory, Shoreline-Specific Conditions, Analysis of Ecological Functions and Ecosystem-wide Processes, Land Use Analysis, and Shoreline Management Recommendations. For purposes of distinguishing varying levels of ecological function as well as potential future differences in environment designations, the Jenkins Creek and Pipe Lake shorelines were each divided into two segments. These segments, along with the description of the Big Soos Creek shoreline, have been delineated based on existing land use and current location within the City.

2.3.1 Land Use and Physical Conditions

1. **Land Use and Zoning**: Land uses within the City of Covington shoreline area vary in type and intensity depending on their location within the city. The majority of the shoreline area is single-family residential, but current land uses also include industrial/commercial, public utility and open space/private recreation uses. Some single-family residential and industrial areas adjacent to Big Soos Creek and Jenkins Creek will likely redevelop over time into mixed-use, multi-family residential, office or retail. Land use along Pipe Lake will primarily be limited to new residential development on vacant lands and redevelopment of existing single-family homes. Camp McCulloch, owned by First Presbyterian Church, comprises about a third of the shoreline area of Pipe Lake within the City of Covington. There is the potential for conversion of Camp McCulloch to residential use or possibly public recreation/open space use, both of which would be allowed under current zoning.

The City's current zoning of the entire Pipe Lake shoreline is Low Density Residential (4 units per acre). Zoning along Jenkins Creek includes Industrial along the BPA substation and Downtown (DN-7B) upstream of Covington Way, a designation which allows a variety of professional office, mixed-use and residential uses. Shoreline areas along Big Soos Creek are primarily zoned Urban Separator, a designation which allows one residential unit per acre. A very small strip of land within the shoreline area of Big Soos Creek is zoned Downtown (DN-3), a designation which allows a wide variety of uses, including commercial, residential and industrial uses. However, the DN-3 zoned area within the shoreline jurisdiction is mapped as a wetland, which would limit development if wetland conditions in fact exist at this location. The City is currently re-examining the uses, standards and the range of Downtown zones. There is currently a moratorium on new industrial uses in the DN-3 zone.

2. **Parks and Open Space/Public Access**: The City provides limited public access within shoreline jurisdiction, with only one open space parcel located along Big Soos Creek. Further upstream of the 20 cfs cutoff point the majority of the creek is surrounded by the Gary Grant Soos Creek Park, owned by King County. This 500-acre park provides access to the 7-mile Soos Creek Trail which also provides picnic areas.

Pipe Lake has Camp McCullough and a private park for homeowners of Aqua Vista Estates, both of which provide private access to the lake. However, public access to Pipe Lake does

not exist currently. There are no public access opportunities along the Jenkins Creek shoreline areas.

3. Shoreline Modifications: Shoreline modifications along Big Soos Creek within the City of Covington occur at the SR 18 highway crossing. Two SR 18 bridge spans modify Big Soos Creek shoreline areas within Covington shoreline jurisdiction. Modifications include floodplain clearing, placement of road embankment fill, armoring, footings, pilings, and the bridge spans. The south span has no pilings and the stream banks are armored with quarry spalls. The north span includes some concrete piling supports outside of the active channel and the banks are lined with only gravelly soils. The floodplain has also been constricted considerably at the SR 18 crossing location.

Pipe Lake has been altered with a variety of armoring and alteration types, including piers, boatlifts, boathouses, and moorage covers. There are approximately 30 piers in Covington's Pipe Lake shoreline, and at least five small swimming platforms. The longest pier on the lake is owned by Camp McCullough and is approximately 100 feet long.

Jenkins Creek has extensive channel modifications within the City of Covington at the Bonneville Power Administration property, as well a three-bay concrete box culvert under Covington Way SE and a rock-and-mortar weir.

The full shoreline inventory includes a more in-depth of discussion of the above topics, as well as information about transportation, stormwater and wastewater utilities, impervious surfaces, and historical/archaeological sites, among others.

2.3.2 Biological Resources and Critical Areas

With the exception of the shoreline along Camp McCullough, the Pipe Lake shoreline within the City of Covington is generally deficient in high-quality biological resources and critical areas, primarily because of the extensive residential development and associated shoreline modifications. The Pipe Lake segment along Camp McCullough, which has 800 feet of natural shoreline, is the last remaining underdeveloped site along the Lake and has high habitat quality. The shoreline area along Big Soos Creek contains an floodplain and limited residential development. The Big Soos Creek shoreline area received a moderate overall rating for ecological function. Erosion hazard areas are located along the entirety of Big Soos Creek shoreline jurisdiction and large trees are limited. The portion of Jenkins Creek upstream of Covington Way has high quality vegetation near the stream, and generally high ecological function. Downstream of Covington Way, adjacent to the BPA site, the stream banks are heavily modified, the effective riparian area is constrained and this reach received a low/moderate overall ecological function rating.

Wetlands mapped within shoreline jurisdiction include large wetland areas along the Big Soos Creek corridor (approximately 70 acres) and a stretch of wetlands located along Jenkins Creek northeast of Covington Way NE. There are no documented wetland areas located around Pipe Lake within shoreline jurisdiction.

An important non-shoreline stream in the City is Little Soos Creek, a tributary of Big Soos Creek. This stream is used by Chinook and Coho salmon, as well as steelhead and cutthroat trout.

WDFW mapping of Priority Habitat and Species (WDFW 2007) also indicate the only Priority species within shoreline jurisdiction are fish, including Chinook and Coho salmon, steelhead, and resident trout. A bald eagle nest is mapped farther upstream outside the shoreline jurisdiction of Jenkins Creek.

3. RESTORATION GOALS AND OBJECTIVES

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 major engineering changes, land use changes which have resulted in direct and indirect impacts to salmon habitat, and water quality which has declined due to wastewater and industrial discharges, erosion, failing septic systems and the use of pesticides.” (WRIA 9 Steering Committee 2002). The City of Covington’s *Shoreline Analysis Report* (The Watershed Company/AHBL 2008) provides supporting information that validates these claims specifically in the City’s shoreline jurisdiction. 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.”

The WRIA 9 restoration goals, in combination with the results of the City’s *Shoreline Analysis Report*, the direction of Ecology’s *Shoreline Master Program Guidelines*, and the City’s commitment (Appendix A) to support the *Salmon Habitat Plan: Making our Watershed Fit for a King*, are the foundation for the following goals and objectives of the City of Covington’s restoration strategy. 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 ecosystem-wide processes and ecological functions performance that favors salmon generally captures those processes and functions that benefit all fish and wildlife.

Goal 1 – Maintain, restore or enhance watershed processes, including sediment, water, wood, light and nutrient delivery, movement and loss.

Goal 2 – Maintain or enhance fish and wildlife habitat during all life stages and maintain functional corridors linking these habitats.

Goal 3 – Contribute to conservation and recovery of chinook salmon and other anadromous fish, focusing on preserving, protecting and restoring habitat with the intent to recover listed species, including sustainable, genetically diverse, harvestable populations of naturally spawning chinook salmon.

System-wide restoration objectives

- Improve the health of shoreline waterbodies by managing the quality and quantity of stormwater runoff, consistent at a minimum with the latest Washington Department of Ecology *Stormwater Management Manual for Western Washington*. Make any additional efforts to meet and maintain state and county water quality standards in contributing systems.
- Improve tributary stream health by eliminating man-made barriers to anadromous fish passage, preventing the creation of new barriers, and providing for transport of water, sediment and organic matter at all stream crossings.
- Improve tributary stream and lake health by identifying hardened and eroding lakeshores and streambanks, and correcting to the extent feasible with bioengineered stabilization solutions.
- Improve tributary stream and lake health by increasing large woody debris recruitment potential through plantings of trees in the riparian corridors, particularly conifers. Where feasible, install large woody debris to meet short-term needs.
- Increase quality, width and diversity of native vegetation in protected corridors adjacent to stream and lake habitats to provide safe migration pathways for fish and wildlife, food, nest sites, shade, perches, and organic debris. Strive to control non-indigenous plants or weeds that are proven harmful to native vegetation or habitats.
- Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 9 to implement the *Salmon Habitat Plan: Making our Watershed Fit for a King*.
- Use the scientific foundation and the conservation strategy as the basis for local actions recommended in the *Salmon Habitat Plan: Making our Watershed Fit for a King* and as one source of best available science for future projects, ordinances, and other appropriate local government activities.
- Use the comprehensive list of actions, and other actions consistent with the *Salmon Habitat Plan: Making our Watershed Fit for a King*, as a source of potential site-specific projects and land use and public outreach recommendations.
- Use the start-list to guide priorities for regional funding in the first ten years of implementation of the *Salmon Habitat Plan: Making our Watershed Fit for a King*, and implementing start-list actions through local capital improvement projects, ordinances, and other activities.

- Seek funding for various restoration actions and programs from local sources and by working with other WRIA 9 jurisdictions and stakeholders to seek federal, state, grant and other funding opportunities.
- Develop a public education plan to inform private property owners in the shoreline zone and in the remainder of the City about the effects of land management practices and other unregulated activities (such as vegetation removal, pesticide/herbicide use, car washing) on fish and wildlife habitats.
- Where feasible, protect, enhance, and restore riparian areas surrounding wetlands where functions have been lost or compromised.

Big Soos Creek and Jenkins Creek restoration objectives

- Improve the health of Jenkins Creek and its tributary streams by identifying hardened and eroding streambanks, and correcting to the extent feasible with bioengineered stabilization solutions.
- Improve the health of both Big Soos and Jenkins Creeks and its tributary streams by increasing large woody debris recruitment potential through plantings of trees in the riparian corridors, particularly conifers. Where feasible, install large woody debris to meet short-term needs.

Pipe Lake restoration objectives

- Decrease the amount and impact of overwater and in-water structures along Pipe Lake through minimization of structure size and use of innovative materials.
- Participate in lake-wide efforts at Pipe Lake to reduce populations of non-native aquatic vegetation.
- Improve the health of lake shorelines by removing bulkheads, where feasible, utilizing bioengineering or other soft shoreline stabilization techniques to improve aquatic conditions.

4. LIST OF EXISTING AND ONGOING PROJECTS AND PROGRAMS

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

4.1 Water Resource Inventory Area (WRIA) 9 Participation

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*. This effort includes the City of Covington's implementation commitment in the form of City Council Resolution #05-57, approved October 25, 2005 (Appendix A). The City's preparation of the *Shoreline*

Analysis Report Including Shoreline Inventory and Characterization for City of Covington’s Shorelines: Big Soos Creek, Jenkins Creek, and Pipe Lake (The Watershed Company/AHBL 2008) and this *Shoreline Restoration Plan* are important steps toward furthering the goals and objectives of the WRIA 9 Plan. The City’s Shoreline Master Program update materials rely heavily on the science included in the WRIA 9 products.

The *Salmon Habitat Plan: Making Our Watershed Fit for a King* (Steering Committee 2005), which was adopted by the City, lists a number of programs that can and do occur in Covington, but also across the entire watershed, that would contribute to the recovery of habitat basin-wide. The 16 WRIA-wide (WW) actions listed in Chapter 7 of the *Salmon Habitat Plan: Making our Watershed Fit for a King* and in Table 1 below are programmatic in nature and range from public education and stewardship to incentives to regulations and regulatory enforcement.

Table 1. WRIA-wide Programs Recommended to Support Habitat and Status of Implementation in Covington

Program WW-#	Program	Covington Implementation
1	Conduct Shoreline Stewardship Workshops and Outreach	King County has been coordinating public education efforts on Pipe Lake regarding invasive aquatic vegetation control. The City has provided joint financial support (along with Ecology and the City of Maple Valley) for eradication efforts conducted by King County
2	Increase/Expand Water Conservation Incentive Programs	The City assists Covington Water with the distribution of materials for this program. Covington Water District has a model program for irrigation practices. The City will also work with
3	Increase/Expand Natural Yard Care Programs for Landscapers	Homeowners have been the City’s initial target efforts - no progress to date on landscapers, but this area should be targeted in the future.
4	Increase/Expand the Natural Yard Care Program for Single Family Homeowners	Covington Water implements this program, while the City may provide additional assistance in the future.
5	Promote the Planting of Native Trees	The City currently requires the replanting of native trees when the City’s tree preservation ordinance is applicable to site development plans. The City also publishes a preferred native tree list of Pacific Northwest trees.
6	Promote Better Volunteer Carwash Practices	King County provides water quality kits to local citizens, which is a requirement for NPDES.
7	Increase Public Awareness about What Healthy	The City has collaborated with

Program WW-#	Program	Covington Implementation
	Streams and Rivers Look Like and How to Enjoy Recreating on Them	Covington Rotary and King County to involve young people in planting native trees and shrubs for the purpose of restoring and enhancing fish and wildlife habitat, increase public awareness and education on forest habitat functions and values, and improve public access to Jenkins Creek Park.
8	Increase Involvement of Volunteers in Habitat Stewardship	Water quality testing (for the 2012 NPDES permit) is a volunteer task initiated by the City. The Mid-Green River Coalition is a resource in this area and conducts water quality projects.
9	Green/Duwamish Volunteer Revegetation Program	King County led effort
10	Support/Expand the Natural Resource/Basin Steward Programs	King County led effort.
11	Expand existing incentives and develop new incentives for property owners to protect salmon habitat.	The proposed SMP includes incentives for homeowners to improve nearshore ecological functions.
12	Improve Enforcement of Existing Land Use and Other Regulations	Code enforcement is responsible for enforcing regulations which address public health and safety issues, including regulations related to rubbish, garbage, specific nuisances, removal of vegetation, zoning, housing, dangerous buildings, and inoperable and unlicensed vehicles on private property. Enforcement actions are taken both proactively and in response to requests for action received from citizens. The City has recently refined its code enforcement process to provide consistency in evaluation of violations, notification of violators, sending letters seeking compliance, and filing of "Notices of Violation", as well as improved education programs with homeowner's associates and downtown businesses.
13	Increase Use of Low Impact Development (LID) and Porous Concrete	A grant request has been submitted by the City to reconstruct the Wood Creek Retention Pond using LID techniques. This project would be a working model for homeowners and contractors to see how to install and maintain a LID. Construction is scheduled for 2009. The Comprehensive Plan and the

Program WW-#	Program	Covington Implementation
		proposed SMP also contain provisions which promote LID.
14	Provide Incentives for Developers to Follow Built Green™ Checklist Sections Benefiting Salmon	The City does not yet provide incentives for Built Green, but may consider this as part of new planned development standards in the downtown area.
15	Develop a Coordinated Acquisition Program for Natural Areas	Covington requires an easement as a condition of major redevelopment along Jenkins Creek for Wax Road properties below 272 nd to preserve land for the future Jenkins Creek Regional Trail. A conservation easement currently exists for a major portion of the 180 th /240 St. Park along upper Little Soos Creek (upstream from shoreline jurisdiction)
16	Develop Salmon Restoration Tools Consistent with Agricultural Land Uses	King County administered program

4.2 Comprehensive Plan Policies

The City of Covington completed a major update to its Comprehensive Plan in 2003 pursuant to Growth Management Act requirements. The updated Comprehensive Plan contains a number of general and specific goals and policies that direct the City to permit and condition development in such a way that the natural environment is preserved and enhanced. Specific relevant goals include:

- LNG 1.0 The City of Covington will encourage a future growth and development pattern that implements the Vision Statement, minimizes urban sprawl, protects critical areas, enhances quality of life for all residents, and supports a healthy economy and employment growth.
- EVG 1.0 Foster recognition of the significant role played by natural features and systems in determining the overall environmental quality and livability of the community.
- EVG 4.0 Develop and implement a comprehensive water quality plan that will protect and restore stream habitats, and other surface and groundwater resources. The intent is to protect and enhance water resources for multiple benefits, including recreation, fish and wildlife resources and habitat, flood protection, water supply, and open space.
- EVG 9.0 Minimize the loss of vegetation as new development occurs. Continue to recognize the value of trees and other vegetation in increasing the livability of the City of Covington.

EVG 11.0 Regulate development in environmentally critical areas such as steep slopes and landslide-prone areas to prevent harm, to protect public health and safety, and to preserve the remaining sensitive areas in the City.

Techniques suggested by the various policies to protect the natural environment include requiring setbacks from sensitive areas, preserving habitats for sensitive species, preventing adverse alterations to water quality and quantity, promoting low impact development, preserving existing native vegetation, educating the public, and mitigating necessary sensitive area impacts, among others.

4.3 Critical Areas Regulations

The City of Covington critical areas regulations are found in Covington Municipal Code Chapter 18.65. The City adopted a Critical Areas Ordinance (CAO) in August 2005 consistent with best available science and all other requirements of the GMA to provide a high level of protection to critical areas in the City, particularly for streams and wetlands. The regulations categorize waterbodies into four types based on documented salmonid fish use and size (for lakes and ponds), with standard buffers ranging from 25 feet for Type O waters and 115 feet for Type S and F waters. Standard wetland buffers range from 50 to 225 feet and are classified using the Department of Ecology's latest *Washington State Rating System for Western Washington*. Pipe Lake is currently regulated as a wetland by the City of Covington. Management of the City's critical areas using these regulations should help insure that ecological functions and values are not degraded, and impacts to critical areas are mitigated. These critical areas regulations are one important tool that will help the City meet its restoration goals. The City's critical areas regulations are adopted by reference into the Shoreline Master Program to regulate critical areas found within the shoreline zone.

4.4 Stormwater Management and Planning

The City issued a first draft of its *Stormwater Management Plan* in March 2008 and is working toward a final draft by 2012 for full compliance for the City's NPDES Phase II permit from Department of Ecology. For the time being, the City has adopted by reference the *1998 King County Surface Water Design Manual*. Both Ecology's 2005 *Stormwater Management Manual for Western Washington* and *King County's 2005 Surface Water Design Manual* will be evaluated as the NPDES Phase II permit requires that the City use minimum requirements that are equivalent to Ecology's manual.

In January 2007, Ecology approved the City's NPDES Phase II permit. The NPDES Phase II permit is required to cover the City's stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, wastewater), management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations.

4.5 Public Education

The City of Covington's Comprehensive Plan identifies 3 policy statements based on the goal of environmental public involvement (see below). These items help guide City staff and local citizen groups in developing mechanisms to educate the public and broaden the interest in protecting and enhancing local environmental resources.

Goal

EVG 1.0 Foster recognition of the significant role played by natural features and systems in determining the overall environmental quality and livability of the community.

Policies

EVP 1.7 Provide incentives for environmental protection and compliance with environmental regulations. Foster greater cooperation and education among City staff, developers, and other citizens. Determine the effectiveness of incentives by establishing monitoring programs.

EVP 1.8 Protect and enhance environmental quality via maintenance of accurate and up-to-date environmental data, and by City support of environmental management programs, park master programs, and environmental education and incentive programs.

EVP 1.9 Provide to property owners and prospective property owners general information concerning natural resources, critical areas, and associated regulations. Ensure developers provide site-specific environmental information to identify possible on- and off-site constraints and special development procedures.

As part of the City of Covington's efforts to abide by these goals and policies, the City supports volunteer efforts and other programs in cooperation with special districts, non-profit groups and public agencies. For example, the Covington Water District sponsors information on low-water gardening and lawn care techniques that promote chemical and pesticide-free methods.

4.6 Other Covington Programs

The City's Parks and Recreation Department could leverage the efforts of volunteers to enact additional restoration projects to benefit shoreline conditions. This could include enabling volunteers to donate time and energy to improving natural systems.

Adopt-A-Park

The City has a limited Adopt-A-Park program at this time, but would like to expand this effort with improved guidelines. The goal of the program is to encourage environmental stewardship and maintenance of the City's park, trails and open space system through a community partnership program of volunteer groups, local businesses, individuals and Parks staff. Projects developed through the Adopt-A-Park program could include park beautification efforts, litter control, trail development and maintenance and other special City-initiated projects. These efforts can help ensure that the City's parks, trails and open spaces remain safe and enjoyable for

all residents and park users. The City has had a recent success implementing this program at Gerry Crick Skate Park, where a local contractor has adopted the Park. The City has also worked with other parties to develop and improve parks, including assistance from Walmart with funding for the skate park and the Covington Rotary Club with removal of invasive vegetation and aesthetic improvements at Jenkins Creek Park.

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

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

5.1 *Unfunded WRIA 9*

Although no specific projects are identified in the WRIA 9 studies within the City of Covington, several actions could be taken to achieve broad restoration goals for improvements to habitat and ecological functions. These may include implementation of one or more of the WRIA-wide actions listed in Table 1.

5.2 *Other Recommended Projects*

The following is partially developed from a list of opportunity areas identified within the *Shoreline Analysis Report*. The list of potential projects was created after assessing field conditions, and is intended to contribute to improvement of impaired functions.

Big Soos Creek

The stretch of Big Soos Creek with the City of Covington could be enhanced on both public and private land by vegetation planting with a buffer of native trees and shrubs, particularly conifer species, as well as placement of large woody debris to enhance in-stream fish habitat.

Jenkins Creek

The Jenkins Creek shoreline area will benefit most from continued preservation and protection of the remaining functions. As previously mentioned in the *Shoreline Analysis Report*, the habitat above Covington Way SE is fairly good, with extensive vegetated areas and functional buffers. However, additional improvements could be made along the stretch below Covington Way SE, specifically along the BPA substation. Existing vegetation could be supplemented with native trees and shrubs to provide a wider functioning buffer than currently exists.

In 1993, the King County Wastewater Treatment Division constructed the BPA Substation Habitat Diversity Improvement Project. This project consisted of locating 12 single and multiple log structures along the stream bank in conformance with the Soos Creek Basin Plan. The project was constructed approximately .25 miles downstream of Covington Way. This project was inspected and monitored for ten years, with assistance from the City of Covington. The last monitoring was done in 2003. This effort is an example of a habitat improvement project that

could be replicated elsewhere on Jenkins Creek and there are likely lessons learned from this effort that could inform future projects.

Pipe Lake

As previously mentioned, most of the lake edge within Covington jurisdiction remains in a “natural” (not armored) state, the largest stretch of which is located along the western shoreline at Camp McCullough. This stretch of shoreline should remain a priority for long-term protection and preservation of shoreline ecological function. Where single-family residences exist along the shoreline, the City should encourage private homeowners to implement bulkhead removal and shoreline enhancement projects and replace deteriorating piers to reduce overall impacts. This could be achieved through a variety of mechanisms, including development incentives and/or public education/outreach. Since a majority of lake is located within Maple Valley jurisdiction, a coordinated effort should be implemented.

Control and monitoring of aquatic invasive vegetation, specifically hydrilla, should continue. Hydrilla is legally designated as a Class A noxious weed and has only been found in Pipe Lake and Lake Lucerne in the state. Once established, the plant grows rapidly, overcoming native species and filling the water column from bottom to surface, greatly restricting recreational uses. Efforts to eradicate hydrilla from Pipe Lake over that past nine years, including herbicide treatment and hand pulling, have been effective. However, on-going maintenance and monitoring need to continue in order to prevent its return and potential spread to other state waterbodies.

5.3 Public Education/Outreach

Chapter 7 of the WRIA 9 *Salmon Habitat Plan: Making our Watershed Fit for a King* (Steering Committee 2005) identifies 16 WRIA-wide (“watershed-wide”) actions that could contribute to the recovery of ecosystem health. These actions range from public education and stewardship to incentives to regulations and regulatory enforcement. Specific public education and stewardship efforts listed in the report include:

- Conduct Shoreline Stewardship Workshops and Outreach
- Increase/Expand Water Conservation Incentive Programs
- Increase/Expand Natural Yard Care Programs for Landscapers
- Increase/Expand the Natural Yard Care Program for Single Family Homeowners
- Promote the Planting of Native Trees
- Promote Better Volunteer Carwash Practices
- Increase Public Awareness about What Healthy Streams and Rivers Look Like and How to Enjoy Recreating on Them
- Increase Involvement of Volunteers in Habitat Stewardship
- Green/Duwamish Volunteer Revegetation Program
- Support/Expand the Natural Resource/Basin Steward Programs
- Expand/Improve Incentives Programs
- Improve Enforcement of Existing Land Use and Other Regulations

- Increase Use of Low Impact Development and Poured Concrete
- Provide Incentives for Developers to Follow Built Green™ Checklist Sections Benefiting Salmon
- Develop a Coordinated Acquisition Program for Natural Areas
- Develop Salmon Restoration Tools Consistent with Agricultural Land Uses

Specific details about these public education, outreach and stewardship programs may be found at <http://your.kingcounty.gov/dnrp/library/2005/kcr1876/CHAPTERS/Ch7-Actions.pdf>.

6. PROPOSED IMPLEMENTATION TARGETS AND MONITORING METHODS

As previously noted, the City’s shoreline zones are currently occupied by industrial, professional office, single-family residences, public facility and public and private open space areas. Therefore, efforts should be made to improve shoreline ecological function through the promotion of restoration and healthy practices at all levels, from industrial users to single-family property owners. Continued improvement of shoreline ecological functions on the shorelines requires a more comprehensive watershed approach.

The following table (Table 2) outlines a possible schedule and funding sources for implementation of a variety of efforts that could improve shoreline ecological function, and are described in previous sections of this report.

Table 2. Implementation Schedule and Funding for Restoration Projects, Programs and Plans.

Restoration Project/Program	Schedule	Funding Source or Commitment
4.1 WRIA 9 Participation	Ongoing	The City is an active member of the WRIA 9 Forum. Membership at this time entails a commitment of time from a City Council member.
4.2 Comprehensive Plan Policies	Last updated in December 2003 and amended in December 2005	The City makes a substantial commitment of staff time in the course of project and program reviews to determine consistency and compliance with the updated Comprehensive Plan.
4.3 Critical Areas Regulations	Updated	The City makes a substantial commitment of staff time in the course of project and program reviews to determine consistency and compliance with their updated Critical Areas Regulations.

Restoration Project/Program	Schedule	Funding Source or Commitment
4.4 Storm Water Planning	Ongoing, Update by August 2009	The City currently commits staff time and materials to this effort. In addition, the City expects to hire a consultant to update the Comprehensive Storm Water Plan and spend up to \$50,000 for that purpose. The purpose of the update is to create a plan that guides decisions about development and the protection of natural resources in the City of Covington as it pertains to surface water. The update is necessary to meet National Pollutant Discharge Elimination System (NPDES) Phase II requirements. Some of these changes include the adoption of DOE's Stormwater Management Manual for Western Washington and a greater emphasis on Low Impact Development (LID) in current regulations and recommendations, rather than the previous focus on regional storm water facilities.
4.5 Public Education/ Outreach	Ongoing	Currently, staff time and materials are provided in developing public education and outreach efforts to educate the public and broaden the interest in protecting and enhancing local environmental resources. On-going and future education efforts should be coordinated with partnering agencies (such as utilities and King County), including funding sources (grant funding, monetary donations, volunteer hours).
4.6 Adopt-A-Park	Ongoing	Currently, staff time and materials are the only City resource commitments. The City only has a limited program at this time, but would like to expand this effort.
5.1 Unfunded WRIA 9 Projects	As funds and opportunity allow	The City Council passed a resolution in 2005 expressing its approval and support for the <i>Salmon Habitat Plan: Making our Watershed Fit for a King</i> (Steering Committee 2005). Projects will be funded by the City, partnering agencies and non-profit organizations, and grants as projects and funding opportunities arise.
5.2 Recommended Projects	As funds and opportunity allow	Projects identified in this section would likely be implemented either when grant funds are obtained, when partnerships are formed between the City and other agencies or non-profit groups, or as may be required by the critical areas regulations and the Shoreline Master Program during project-level reviews by the City.

The City is required to monitor development under the Shoreline Master Program to ensure no net loss. We recommend that City planning staff track all land use and development activity, including exemptions, within shoreline jurisdiction, and incorporate actions and programs of the Parks and Recreation and Public Works departments as well. We recommend that a report be

assembled that provides basic project information, including location, permit type issued, project description, impacts, mitigation (if any), and monitoring outcomes as appropriate. Examples of data categories might include square feet of non-native vegetation removed, square feet of native vegetation planted or maintained, reductions in chemical usage to maintain turf, linear feet of eroding stream bank stabilized through plantings, linear feet of shoreline armoring removed or modified levees, or number of fish passage barriers corrected. The report could also update Tables 1 and 2 above, and outline implementation of various programs and restoration actions (by the City or other groups) that relate to watershed health.

The staff report could be assembled to coincide with Comprehensive Plan updates and could be used, in light of the goals and objectives of the Shoreline Master Program, to determine whether implementation of the Shoreline Master Program is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the *Shoreline Analysis Report* (The Watershed Company/AHBL 2008). In the long term, the City should be able to demonstrate a net improvement in the City of Covington's shoreline environment.

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

7. RESTORATION PRIORITIES

The process of prioritizing actions that are geared toward restoration of Covington's shoreline areas involves balancing ecological goals with a variety of site-specific constraints. Briefly restated, the City's goals include 1) protecting watershed processes, 2) protecting fish and wildlife habitat, and 3) contributing to chinook conservation efforts. Constraints that are specific to Covington include a heavily developed residential shoreline area along Pipe Lake, excluding Camp McCullough, and moderate commercial development along Big Soos and Jenkins Creeks. While some of these areas may already offer fairly good ecological functions, they still tend to include opportunities to further enhance ecological functions. These goals and constraints were used to develop a hierarchy of restoration actions to rank different types of projects or programs associated with shoreline restoration. Programmatic actions, like continuing WRIA 9 involvement and conducting outreach programs to local residents, tend to receive relatively high priority opposed to restoration actions involving small private landowners. Other factors that influenced the hierarchy are based on scientific recommendations specific to WRIA 9, potential funding sources, and the projected level of public benefit.

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

while permitting, design, site access authorization, and funding for the larger, more complicated, and more expensive projects are under way.

7.1 Priority 1 – Continue and Increase Water Resource Inventory Area (WRIA) 9 Participation

Of basic importance is the continuation of ongoing, programmatic, basin-wide programs and initiatives such as the WRIA 9 Forum. However, the City should explore ways to increase participation in this regional effort. This may include expanding collaborative work with other jurisdictions and stakeholders in WRIA 9 to implement the *Salmon Habitat Plan: Making our Watershed Fit for a King*. This process provides an opportunity for the City to keep in touch with its role on a basin-wide scale and to influence habitat conditions beyond its borders, which, in turn, come back to influence water quality and quantity and habitat issues within the City.

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

Although most of the streams and their basins located within the City are outside of shoreline jurisdiction, their impacts to shoreline areas should not be discounted. Many of these streams have the potential to provide fish and wildlife habitat. They are also a common receiving body for non-point source pollution, which in turn delivers those contaminants to shoreline waterbodies.

Watershed-wide programmatic actions listed in the *Salmon Habitat Plan: Making our Watershed Fit for a King* (Steering Committee 2005) include four actions focused on addressing water quality and stormwater controls.

- Program WW-11: Expand/Improve Incentives Programs (Note: for Covington this is largely a matter of developing and/or implementing incentive programs).
- Program WW-12: Improve Enforcement of Existing Land Use and Other Regulations
- Program WW-13: Increase Use of Low Impact Development and Porous Concrete
- Program WW-14: Provide Incentives for Developers to Follow Built Green™ Checklist Sections Benefiting Salmon

Incentives to consider include the King County Transfer of Development Rights Program; education of property owners about the King County current use assessment programs; stormwater fee reduction programs to encourage forest cover and low impact development; and permit streamlining, fee waivers, and zoning flexibility for projects that include restoration. These recommendations also emphasize the use of low impact development techniques, on-site stormwater detention for new and redeveloped projects, and control of point sources that discharge directly into surface waters. They involve protecting and restoring forest cover, riparian buffers, wetlands, and creek mouths by revising and enforcing critical areas ordinances and Shoreline Master Programs while also providing incentives and flexible development tools.

7.3 Priority 3 – Public Education and Involvement

Public education and involvement should be a high priority in the City of Covington. Opportunities for restoration on public property exist along Big Soos Creek, but are limited along Jenkins Creek and Pipe Lake. Most of the shoreline jurisdiction along Jenkins Creek is either residential or owned by the Bonneville Power Administration. Pipe Lake is also predominantly residential except for the large, privately-owned Camp McCullough parcel. Therefore, in order to achieve the goals and objectives set forth in this Restoration Plan, the City should focus on balancing restoration on public and private land.

Potential restoration projects that may occur along Big Soos Creek as described in Section 5.2 include native vegetation enhancement and installation of large woody debris to increase available fish habitat. Providing education opportunities and involving the public is key to success, and would possibly entail coordinating the development of a long-term Public Education and Outreach Plan to gain public support. Restoration efforts on private property would also benefit from public outreach and education. This could include local workshops to educate shoreline property owners and other shoreline users on maintaining healthy shoreline environments, promoting enhancement and restoration opportunities, and use of low impact development techniques.

7.4 Priority 4 – Improve Riparian Vegetation, Reduce Impervious Coverage

Similar to the priority listed above to improve water quality and reduce sediment and pollutant delivery, improved riparian vegetation and reduction in impervious surfaces are emphasized throughout the *Salmon Habitat Plan: Making our Watershed Fit for a King* (Steering Committee 2005). Watershed-wide programmatic actions described in the Salmon Habitat Plan include many references to improving vegetative conditions and reducing impervious surface coverage. Specific reference to planting vegetation is listed in Program WW-5: Promote the Planting of Native Trees. The reduction of impervious surface and stormwater runoff can be mitigated through use of low-impact development techniques, pervious paving materials and development incentives as listed in Program WW-13: Increase Use of Low Impact Development and Porous Concrete.

In addition to the items listed in the Salmon Habitat Plan, Section 5.2 above lists areas where improvements to riparian vegetative cover and reductions in impervious surfaces are warranted.

7.5 Priority 5 – Reduce Aquatic Invasive Weeds in Pipe Lake

While not specifically listed in the Salmon Habitat Plan, control and monitoring of aquatic invasive weeds from Pipe Lake is emphasized in Section 5.2. The lake has experienced growth of non-native and often-times invasive aquatic vegetation. In particular, hydrilla created the most impact along the nearshore area. Not only are aquatic weeds a problem for boats and swimmers, but they also tend to reduce dissolved oxygen to lethal levels for fish, hampering foraging opportunities. As noted in the Analysis Report, King County DNR conducted an extensive hydrilla removal effort between 1995 and 2007. As of November 2007, no hydrilla plants remained in the lake. The County plans to treat the lake with herbicide for two more years

and will monitor for another five years beyond the treatment completion (King County DNR 2007).

7.6 Priority 6 – Acquisition of Shoreline Property for Preservation, Restoration, or Enhancement Purposes

Due to the shortage of City-owned shoreline property, the City should explore opportunities to purchase shoreline property both for the purposes of increasing public recreation and shoreline access, and constructing demonstration shoreline conservation and restoration projects. A prioritized list of acquisition actions could be developed through a collaborated effort with stakeholder groups including representatives from local government, business and the general public. Such a coordinated effort is listed as a watershed-wide programmatic action in the *Salmon Habitat Plan: Making our Watershed Fit for a King* (Steering Committee 2005). Ongoing efforts to develop South Covington Park should be used as a model for acquisition and development of shoreline access opportunities and subsequent preservation, restoration, or enhancement of the shoreline ecological functions. Acquisition of large relatively undeveloped parcels, such as Camp McCullough, should be a priority for securing future public access if such undeveloped parcels become available.

7.7 Priority 7 – Reduce Shoreline Armoring along Pipe Lake, Create or Enhance Natural Shoreline Conditions

Approximately 20 percent of the Pipe Lake shoreline within the City of Covington is armored at or below the ordinary high water mark and much of the remaining 80 percent remains in a natural state (The Watershed Company/AHBL 2008). Although existing armoring is fairly minimal, a reduction in shoreline armoring along Pipe Lake should be considered. While no specific lake project sites have been identified under this restoration priority, emphasis should be given to future project proposals that involve or have the potential to restore shoreline areas to more natural conditions, including revegetation of the nearshore with native plants. The City should explore ways in which to assist local property owners, whether through financial assistance, permit expedition, or guidance, to team together with restoration of multiple contiguous lots.

7.8 Priority 8 – Reduction of In-water and Over-water Structures

Reduction of in- and over-water cover by piers, docks, and other boat-related structures is one mechanism to improve shoreline ecological functions. Pier and docks are extensive along Pipe Lake, although within the City of Covington the number is minimal. Approximately 30 pier or docks are located in Covington's Pipe Lake shoreline. The Washington Department of Fish and Wildlife already regulates the size and materials for in- and over-water structures throughout the State and generally recommends finding ways to reduce both the size and density of these structures. Although no specific project sites to reduce in-water and over-water structures within residential areas are identified here, future project proposals involving reductions in the size and/or quantity of such structures should be emphasized. Such future projects may involve joint-use pier proposals or pier reconstruction and may be allowed an expedited permit process or promoted through project incentives.

7.9 Priority 9 – City Zoning, Regulatory, and Planning Policies

City Zoning, Regulatory, and Planning Policies are listed as being of lower priority in this case simply because they have been the subject of review and have recently been updated accordingly. Notably, the City's Critical Areas Ordinance was recently updated in 2005 consistent with the Best Available Science for critical areas, including those within the shoreline zone.

The City received its final National Pollutant Discharge Elimination System (NPDES) Phase II permit on January 17, 2007 from Ecology and it became effective on February 16, 2007. The NPDES Phase II permit is required to cover the City's stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, wastewater), management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations.

The City has adopted the *2005 King County Surface Water Design Manual*, and in 2009 will adopt Ecology's *2005 Stormwater Management Manual for Western Washington*, as the NPDES Phase II permit requires. The DOE Manual references the *Low Impact Development: Technical Guidance Manual for Puget Sound* as a viable source of appropriate low impact techniques for drainage control. The City should consider exploring broader code revisions that would encourage, or in some cases possibly require, Low Impact Development techniques in the shoreline area as detailed in the *Low Impact Development: Technical Guidance Manual for Puget Sound*.

Watershed-wide programmatic actions listed in the *Salmon Habitat Plan: Making our Watershed Fit for a King* (Steering Committee 2005) include three actions focused on regulatory mechanisms to restore ecological functions discussed previously in Section 7.2.

8. REFERENCES

City of Covington. 2003. City of Covington Comprehensive Plan.

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WRIA 9 Steering Committee. 2002. Green/Duwamish and Central Puget Sound Watershed (WRIA 9) Near-Term Action Agenda For Salmon Habitat Conservation. May 2002. <http://dnr.metrokc.gov/wrias/9/NTAA.htm>.

APPENDIX A

CITY OF COVINGTON RESOLUTION #05-57 RATIFYING THE WRIA 9 SALMON HABITAT PLAN

APPENDIX B

WRIA 9 SALMON HABITAT PLAN EXECUTIVE SUMMARY