

8.0

SURFACE WATER RESOURCE

ELEMENT

8.1 Introduction

Surface water resources within the City of Covington include Jenkins Creek, North Jenkins Tributary, Little Soos Creek, Big Soos Creek, Cranmar Creek, and Pipe Lake. In addition, the City of Covington owns and operates a storm drainage system consisting of open channel and piped conveyance systems, catch basins, and stormwater management facilities such as detention ponds, retention ponds, and water quality treatment ponds. The City's surface water runoff policy provides guidance for the comprehensive management of surface and storm waters and erosion control, especially the preservation and utilization of the many values of the City's natural drainage system, including open space, fish and wildlife habitat, recreation, education and urban separation. Open stormwater management facilities are considered a surface water resource due to potential incorporation into a project as a public amenity. Underground stormwater management facilities for land uses other than single family residential are typically owned and operated by the property owner.

A Comprehensive Storm Water Plan was prepared in 1992 as part of King County's Covington Area Plan. The 1992 Comprehensive Stormwater Plan is being updated in 2010. The 2010 update is referred to as the 2010 Comprehensive Stormwater Plan Update. The primary goal of the City's Comprehensive Stormwater Plan is to preserve and protect surface water quality and the hydrologic flow regime within the streams, lakes, wetlands and other aquatic resources within the City. To this end the City will manage stormwater to minimize contact with contaminants, mitigate the impacts of increased runoff and stormwater quality impairment due to development within the City's drainage areas, provide management of runoff from construction sites and comply with the National Pollution Discharge

Elimination System (NPDES) Phase II stormwater permit. The purpose of the Comprehensive Stormwater Plan is to provide the City with a planning document that accomplishes the following:

- Meets local, state and federal stormwater regulatory requirements,
- Identifies existing environmental and water quality problems potentially associated with current and future predicted surface water runoff, and,
- Provides recommendations for improvements to conveyance systems, water quality treatment, and runoff control with cost analyses and implementation schedules.

The 2009 Comprehensive Stormwater Plan Update presents a summary of the stormwater drainage system within the City of Covington and presents recommendations for capital improvement projects, maintenance and policy considerations and the impact that the planned activities will have on the Surface Water Management Utility.

8.2 Planning Context

8.2.1 GMA Requirements

The GMA public facilities and services goal ensures that stormwater drainage system is adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

8.2.2 Management Goals

The primary goal of the City's Comprehensive Storm Water Plan is to preserve and protect surface water quality and the hydrologic flow regime within the City's streams. The City will manage stormwater to minimize contact with contaminants, mitigate the impacts of increased runoff and stormwater quality impairment due to development within the City's drainage areas, and provide management of runoff from construction sites. Through implementation of the projects and recommendations contained in this plan the City will meet its goals of protecting the health, safety, and welfare of the local citizenry and of preserving surface water resources

within the City of Covington.

8.3 Regulatory Considerations

Over the last thirty years the role of the federal, state and local stormwater regulations has been to provide minimum standards for the control and treatment of stormwater runoff. Specifically, the goals of these regulations are to:

- Reduce the damaging effects on the natural environment of increased runoff volumes and discharge rates as development changes the runoff characteristics of the land; and
- To remove the pollutants that become entrained in the runoff.

Through the Clean Water Act (CWA), and other legislation at the federal level, the State of Washington has been delegated the authority to implement rules and regulations that meet the goals of this legislation. The State has subsequently delegated some of this authority to the local agencies.

8.3.1 City of Covington Stormwater Regulations

The City of Covington adopted by ordinance, the Department of Ecology's 2005 Stormwater Management Manual for Western Washington as amended. The 2005 Ecology Manual establishes the minimum requirements for stormwater control and site development requirements for all new development and redevelopment meeting the minimum threshold requirements. The manual specifies water quantity design criteria, water quality controls, erosion and sediment control practices, and site development requirements.

The objectives of the manual are to:

- Establish minimum requirement for controlling the quantity and quality of stormwater produced by new development and redevelopment;
- Provide guidance in the selection and application of stormwater Best Management Practices (BMPs);
- Provide guidance for preparing and implementing stormwater site plans; and

- Protect the health, safety and welfare of the public and protect the beneficial uses of receiving waters,

By implementing these objectives the City of Covington will be able to better manage stormwater and achieve the compliance with Federal, State, and Local stormwater regulations.

8.4 Stormwater Conveyance System

The existing stormwater conveyance system consists of typical components such as curb inlets, catch basins, piping, open ditches, natural streams, wetland, detention ponds, infiltration facilities, water quality ponds and filtration media.

Some problems and deficiencies in the stormwater conveyance system have been identified. The stormwater capital improvement plan contained in the Comprehensive Storm Water Plan address these problem areas.

8.5 Regional Stormwater Facilities

The City of Covington may consider pursuing regional stormwater facilities if deemed necessary and appropriate or if determined to be the best solution to meet the objectives outlined in the 2005 Ecology Manual.

8.6 Stormwater Management Program

The City of Covington's stormwater management program elements include regulatory, enforcement, education, and inspection tools that address control of potential for stormwater related quality and quantity issues and ensure compliance with federal, state and local stormwater regulations. The City of Covington's stormwater management program is outlined in the Stormwater Comprehensive Plan.

8.7 Capital Improvement Plan

The 2010 Stormwater Comprehensive Plan identified several projects through the review of existing documents, hydraulic

modeling, and discussion with City staff and Citizens. The projects recommend a combination of capital (structural) projects and non-structural projects such as monitoring, enhanced education programs and drainage studies. Table 8.5 lists the stormwater capital improvement projects identified in the 2010 Stormwater Comprehensive Plan. The cost estimates and project dates have been update to reflect the current estimates contained in the City's 2010-2030 Stormwater Capital Improvement Plan. The projects are listed in the order of priority in the Stormwater Comprehensive Plan. In addition to the capital improvement projects identified in the Stormwater Comprehensive Plan, the City has developed a list of additional capital improvement projects with stormwater funding components. Implementation of any of the capital improvement projects is dependent upon the availability of adequate funding.

8.7.1 Operation and Maintenance

The City of Covington budgets annually for physical maintenance of the storm drainage system and operational costs.

8.8 Stormwater Utility Financing

The Stormwater Management Program is funded through storm and surface water management fees that are set annually by Resolution during the annual budget process. The financial analysis of the fees is included in the Comprehensive Stormwater Plan. The fees will be evaluated annually to ensure that the utility has sufficient funding capability to cover operation and maintenance costs, projected capital costs and regulatory compliance costs. Comprehensive Stormwater Plan

Sufficient funding for the project discussed in Section 8.7 is essential for implementation of the recommendations. The financial resources available to the City for the implementation of stormwater capital improvement projects, other than service charges, include grant and loan funds, and debt financing. Perusing alternative capital funding sources may delay some of the capital improvement plans.

8.9 Stormwater Related Goals and Policies

The Comprehensive Stormwater Plan supports the goals and policies of

the City of Covington in many different areas including groundwater protection, parks, trails and open space elements, transportation element and utilities element.

The specific goals and policies of the surface and stormwater element are listed below:

SWG 1.0 A Green River watershed approach should be taken to surface water management, with responsibility shared among affected jurisdictions. This approach should emphasize prevention of water quality degradation through education programs and implementation of BMPs to reduce pollution entering surface waters.

SWP 1.1 Work with private property owners and the other public agencies to undertake joint planning, financing and development of regional storm water detention and flood control projects to mitigate run-off impacts on streams, rivers and their ecosystems, and reduce damage to adjoining properties.

SWP 1.2 Evaluate sub-basin study results to determine basin areas, location of regional facilities, flow control, treatment, release, potential cost centers, and flood control.

SWP 1.3 Upgrade sub-basin studies and work plans for existing developed areas.

SWP 1.4 Follow a regional strategy that preserves and supplements, as necessary, the natural drainage ways and other natural storm water systems to minimize run-off impacts from development.

SWP 1.5 Allow storm water retention/detention facilities to be used as partial fulfillment of open space requirements when acceptable as recreational property. In determining the degree to which this is allowed, consideration will be given to the nature of the development. Where the development is more urban or non-residential, a greater percentage may be allowed for fulfillment, up to a maximum of 50 percent credit for required open space.

SWP 1.6 Design, install and maintain storm water facilities such

that water quantity and water quality discharges meet the requirements of the City adopted design manual, the King County Surface Water Design Manual.

SWP 1.7 Encourage infiltration and recharge in areas where appropriate in the design of storm water management facilities.

SWP 1.8 Retain open channel drainage systems, natural or man-made, and encourage new open channel systems when feasible.

SWP 1.9 Design and construct stormwater management systems to minimize adverse impacts to natural water courses and ground water aquifers.

SWP 1.10 Establish and enforce Municipal Stormwater Utility standards to address methods to control run-off during construction to limit erosion, siltation, sedimentation, and stream channel scouring.

SWP 1.11 Work with state and regional agencies to implement policies in the Covington Surface Water Comprehensive Element and any subsequent plans that may be developed for the basins in the Covington area.

SWP 1.12 Continue to use and officially adopt the King County Surface Water Design Manual, and any amendments as approved by the City Council, or other manual consistent with the State Department of Ecology's Stormwater Technical Manual.

SWP 1.13 Implement a strategy that involves development of regional storm water management facilities that provide integration of storm water treatment, detention and/or infiltration with open space or recreational opportunities as the preferred method of storm water management.

SWP 1.14 Develop and adopt a Storm Water Element for the City that meets the requirements of the NPDES Phase II program, addresses storm drainage issues, develops recommended solutions and identifies capital project improvements that are consistent with and

further the overall Comprehensive Plan and Capital Improvement Program.