# SURFACE WATER ELEMENT

## INTRODUCTION

### Purpose

The purpose of the Surface Water Element is to provide goals, objectives and policies relevant to the management of the City's municipal separate storm sewer system (MS4), private stormwater systems and natural surface water systems (i.e. streams, wetlands, groundwater and shoreline), on both public and privately owned land. Surface Water Management is an interdisciplinary practice and many of the policies and programs discussed in this element compliment and build upon the policies of other Comprehensive Plan Elements, particularly those in the Natural Environment, Shoreline and Climate Action Elements. The intent of this Element is to remain consistent with other Elements, but provide additional clarity in regards to the City's management of surface water.

### Growth Management Act

The Growth Management Act (GMA) does not require a Surface Water Element for comprehensive plans (RCW 36.70A.070). However, components of surface water and stormwater management are referenced in several other Element and state regulations allow the city to include this as an optional element because it deals with environmental protection, natural resource lands, design and natural hazard reduction and supports the implementation of other elements.

### King County Countywide Planning Policies

The GMA requires that cities and counties develop county-wide planning policies to ensure consistency between regionally connected comprehensive plans. King County Countywide Planning Policies (CPP) identify policies relevant to surface and storm water management and the City is committed to aligning with these regional goals, including:

- Incorporate protection and restoration efforts into plans to ensure the quality of the natural environment is sustained for future generations.
- Require appropriate low-impact development practices in development regulations.
- Work cooperatively to manage floodplain development.
- Protect wetlands, emphasizing preservation and enhancement of the highest quality wetlands and wetland systems.
- Collaborate with the Puget Sound Partnership to implement the Puget Sound Action Agenda.
- Manage natural drainage systems to improve water quality and habitat functions, minimize erosion and sedimentation, protect public health, reduce flood risks, and moderate peak stormwater runoff rates. Work cooperatively among local, regional, state, national, and tribal jurisdictions to establish, monitor, and enforce consistent standards for managing streams and wetlands throughout drainage basins.

- Support and incentivize environmental stewardship on private and public lands to protect and enhance habitat, water quality, and other ecosystem services.
- Identify and preserve open space.

Clean Water Act

The Federal Water Pollution Control act, originating in 1948 and expanded in 1972, became known as the "Clean Water Act" or CWA. Under the CWA, the United States Environmental Protection Agency (EPA) implements programs to control the discharge of pollutants into Waters of the United States. The National Pollutant Discharge Elimination System (NPDES) program issue permits to regulate the discharge of pollutants into Waters of the United States. The EPA delegates authority to the Washington State Department of Ecology (Ecology) to implement NPDES programs in Washington State.

Beginning in 2007, the city has been required to obtain an NPDES permit (Permit) from Ecology to discharge stormwater into local receiving water bodies from its municipal separate storm sewer system (MS4). An MS4 includes the network of pipes, ditches, curbs, catch basins, ponds, vaults and other stormwater infrastructure needed to collect, convey and treat stormwater runoff. As of 2024, the Permit requires the city to implement a variety of programs to comply with the CWA, including:

- Stormwater Planning
- Public Education and Outreach
- Public Involvement and Participation
- MS4 Mapping and Documentation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Stormwater Management for Existing Development
- Operations and Maintenance
- Source Control Program for Existing Development
- Compliance with Total Maximum Daily Load Requirements
- Monitoring and Assessment
- Reporting

Ecology issues other types of NPDES permits, in addition to the municipal stormwater permit, which include categories such as industrial activities, construction activities, aquatic plant and algae management, and others.

The goals, objectives and policies in this Element are intended to be consistent with NPDES Permit requirements and maintain compliance with the Clean Water Act and the State of Washington Water Pollution Control Law Chapter 90.48 Revised Code of Washington.

Water Resource Inventory Area (WRIA) 8

Water Resource Inventory Area (WRIA) 8 includes Lake Washington, Cedar River, and Lake Sammamish watersheds. To facilitate the recovery of Chinook Salmon, which are listed as threatened under the Endangered Species Act, local governments within WRIA 8 formed a Salmon Recovery Council, developed the Chinook Salmon Conservation Plan and continue to

implement that Plan as of 2024. The City of Kenmore is a participating and voting member of the Salmon Recovery Council and the goals, objectives and policies in this Element are intended to be consistent with the WRIA 8 Chinook Salmon Conservation Plan.

## BACKGROUND

The City of Kenmore is shaped by surface water, from the shorelines of Lake Washington and the Sammamish River dividing the City's landscape, to the numerous streams converging from all directions on these two larger waterbodies with all connected through a network of wetlands, springs, groundwater pathways, and floodplains.

The Kenmore area developed long before it incorporated as a city in 1998 with many of the existing major roads already in place at the turn of the 20th century providing access to the logging industry active in the area. By 1980, many of the City's neighborhoods were developed without the benefit of adequate surface water management resulting in little to no management of runoff from these older developments. The results of unmitigated clearing, grading, compaction, and removal of native soils, plants and trees coupled with the filling or modification of wetlands, floodplains, shorelines and streams began contributing to issues such as erosion, flooding, degradation of water quality, and habitat loss. Additionally, most drainage basins within the City extend far beyond its municipal boundaries and upstream runoff makes its way down to the City, adding to the challenge of managing not only the City's surface water, but runoff from neighboring jurisdictions.

To manage surface water more effectively, the City drafted its first Surface Water Element of the Comprehensive Plan in March of 2001, which was updated in 2008 and 2014. The Surface Water Element provides long range goals, policies and objectives that guide City Council and staff when making decisions related to the management of the City's surface water environment and stormwater system (MS4). The City's first Surface Water Management Plan, which was also developed in 2001, provides more detail on the implementation of surface water management in the City. The Surface Water Management Plan was updated in 2008 and 2015 and was renamed to the Surface Water Master Plan to avoid confusion with the Stormwater Management Program Plan required by Ecology as part of the City's NPDES permit. The Surface Water Master Plan includes, but is not limited to: an analysis of current and emerging issues, compliance strategies for existing and new regulatory requirements, evaluation and update of policies, update of strategies to improve water quality, update of development management strategies, review and update of surface water related operations and maintenance programs, review of flooding issues, basin planning, review of capital projects, and other topics relevant to surface water management. The Surface Water Master Plan is intended to be consistent with the goals, policies and objectives of the Surface Water Element and is often updated concurrent with or soon after a Surface Water Element update.

As the City's surface water management program matures, many of the same issues continue to challenge the City today as they did at the City's incorporation in 1998. High volumes of polluted runoff continue to flood streams and lakes resulting in localized flooding issues and degraded aquatic systems. Through the objectives and policies stated in this element, and the programs referenced therein, the City's goal is to develop, maintain, manage and improve a

surface water system that serves the community, enhances the quality of life and protects the environment.

## GOALS, OBJECTIVES AND POLICIES

### *GOAL 1. FUND SURFACE WATER MANAGEMENT.*

***OBJECTIVE 1.1 Establish a sustainable and equitable surface water management funding structure that supports all capital and operating expenditures.***

Policy 1.1.1 Implement annual rates and charges for all developed parcels within the city to fund surface water management activities. Additionally, the City should implement one-time capital facility charges for all new development.

Policy 1.1.2 Include a Surface Water Management Fund in the biennium budget that is updated with each City budget. Provide adequate revenue for forecasted operating and capital expenditures while maintaining an appropriate fund balance to minimize impacts due to year-to-year expenditure or revenue variances.

Policy 1.1.3 Conduct a periodic analysis of the Surface Water Management Fund funding structure to ensure that it is adequate to meet near and long-term capital and operating expenditures.

Policy 1.1.4 Consider issuing debt to the Surface Water Management Fund activities consistent with surface water management goals, if necessary. Manage debt, if any, to ensure continued high credit quality, access to credit markets, and financial flexibility.

Policy 1.1.5 Apply for grants that support implementation of activities consistent with surface water management goals.

### *GOAL 2. EFFECTIVELY MANAGE THE CITY'S MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) AND PRIVATE SURFACE WATER SYSTEMS IN A MANNER THAT REDUCES FLOODING, ENHANCES WATER QUALITY AND PROTECTS THE NATURAL ENVIRONMENT.*

***OBJECTIVE 2.1 Comply with the current Western Washington Phase II Municipal Stormwater Permit (National Pollutant Discharge Elimination System and State (NPDES) Waste Discharge General Permit).***

Policy SW 2.1.1 Implement the requirements of the NPDES Permit. As of 2024, this includes obtaining coverage under the Permit, implementing a Stormwater Management Program, submitting an annual Stormwater

Management Program Plan, complying with Total Maximum Daily Load (TMDL) requirements, complying with Monitoring and Assessment requirements, and complying with Reporting and Recordkeeping requirements, including submittal of an annual report. Ecology may modify or add program elements to the Permit over time and the City should maintain compliance with any future changes.

***OBJECTIVE 2.2*** ***Utilize Best Available Science to manage Development, Redevelopment, Construction, and City Projects to mitigate flooding and reduce the discharge of pollutants to the maximum extent practicable.***

Policy SW 2.2.1 Adopt and implement an approved Surface Water Design Manual, which is equivalent to the current Washington State Department of Ecology Stormwater Management Manual for Western Washington. As of 2024, the City has adopted the King County Surface Water Design Manual and Stormwater Pollution Prevention Manual.

Policy SW 2.2.2 Make low impact development (LID) the preferred and commonly-used approach to site development, where feasible. LID is a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning and distributed stormwater management practices that are integrated into a project design.

***OBJECTIVE 2.3*** ***Inspect, maintain and operate the City's MS4 to protect public infrastructure and the natural environment, improve water quality and reduce flooding.***

Policy SW 2.3.1 Inspect and maintain the MS4 to the maintenance standards provided in the City's adopted Surface Water Design Manual.

Policy SW 2.3.2 Inspect the MS4 for spills, illicit discharges, and illicit connections and respond promptly when notified of spills or illicit discharges into the MS4 to prevent the discharge of pollutants to the maximum extent practicable.

***OBJECTIVE 2.4*** ***Inspect and manage privately owned stormwater systems to protect public infrastructure and the natural environment, improve water quality and reduce flooding.***

Policy 2.4.1 The City does not operate or maintain privately owned surface water systems unless that system has been formally accepted by the City and is located within the right-of-way or within a tract or easement dedicated to the City for the purpose of operating and maintaining said system.

Policy 2.4.1 Inspect, if authorized, privately owned and operated stormwater systems. When necessary, provide technical assistance and education to promote maintenance of private systems. and utilize applicable regulations to enforce maintenance.

## *GOAL 3 IMPLEMENT A SURFACE WATER MANAGEMENT CAPITAL IMPROVEMENT PROGRAM*

### *OBJECTIVE 3.1 Manage surface water on City capital projects, including transportation, parks and facility projects, beyond minimal requirements, if possible.*

Policy SW 3.1.1 Implement capital improvement programs that maintain and improve the MS4 in a manner that enhances and protects the City's natural environment, mitigates flooding problems, improves water quality, promotes a reliable and safe transportation network and provides the community a safe and healthy place for living, working and recreation.

Policy SW 3.1.2 Explore options to provide enhanced surface water management on City projects, particularly for projects adjacent to non-treated areas.

### *OBJECTIVE 3.2 Remove fish passage barriers on City streams.*

Policy SW 3.2.1 Evaluate and prioritize stream culverts throughout the city to create and implement a culvert replacement program to remove fish passage barrier culverts. These projects will be identified in the Surface Water Management CIP.

### *OBJECTIVE 3.3 Implement projects that conserve open space, restore surface water systems, and improve habitat.*

Policy SW 3.3.1 Evaluate and prioritize properties throughout the city to conserve properties with high conservation and restoration value. These projects will be identified in the Surface Water Management CIP.

Policy SW 3.3.2 Prioritize properties for acquisition that will avoid loss of existing open space and critical areas through development (such as properties eligible for *reasonable use exception*).

### *OBJECTIVE 3.4 Implement retrofit projects that enhance existing surface water facilities and provide surface water facilities in existing developed areas that lack surface water management.*

Policy 3.4.1 Identify and prioritize retrofit project locations and include them in the Surface Water Management CIP.

Policy 3.4.2 Seek opportunities to design and implement surface water management facilities that are functional, serve as amenities, and serve multiple

purposes such as those described in the Parks Element of the City of Kenmore Comprehensive Plan.

## *GOAL 4 PROTECT, MAINTAIN, ENHANCE AND RESTORE NATURAL SURFACE WATER SYSTEMS*

**OBJECTIVE 4.1 Support City policies, regulations and standards that support the protection, enhancement and restoration of the City's extensive natural surface water environment.**

Policy SW 4.1.1 Consistent with Shoreline Element of the City of Kenmore Comprehensive Plan, coordinate and support efforts which strive to preserve, protect and enhance the City's abundant shoreline habitat.

Policy SW 4.1.2 Consistent with Natural Environment Element of the City of Kenmore Comprehensive Plan, coordinate and support efforts that provide protection of wetlands, plants and wildlife, maintain and promote a diversity of species and habitat, and use low impact development best management practices.

Policy SW 4.1.3 Consistent with Climate Action Element of the City of Kenmore Comprehensive Plan, coordinate and support efforts that protect, conserve, and enhance the water resources in the City and create more climate resilient water systems.

Policy SW 4.1.3 Implement critical and sensitive area regulations that protect and enhance surface waters, which may include but are not limited to buffers, setbacks, erosion and sediment control, mitigation, State Environmental Policy Act (SEPA) compliance, Hydraulic Permit Approval (HPA) compliance and compliance with any other applicable local, state and federal requirements.

Policy SW 4.1.4 Protect, enhance and restore flood storage, conveyance functions and ecological values of floodplains, wetlands and riparian corridors through the development and implementation of CIP projects, studies and plans.

Policy SW 4.1.5 Implement an Integrated Aquatic Vegetation Management Plan to manage aquatic plants, both native and invasive, in the City's public shoreline areas.

***GOAL 5 SUPPORT REGIONAL EFFORTS THAT ALIGN WITH THE CITY'S SURFACE WATER MANAGEMENT AND CLIMATE ACTION GOALS.***

***OBJECTIVE 5.1 Promote and support opportunities for public involvement and participation, which may include but are not limited to stewardship groups, volunteer opportunities and grant partnerships.***

Policy 5.1.1 Support regional and local community groups that seek to steward surface water environments within the city in a manner consistent with the city's surface water management goals. Examples of support may include funding, staff assistance, and providing resources.

***OBJECTIVE 5.2 Promote and support opportunities for regional coordination and watershed level management of the City's natural surface water systems. Kenmore often contains only a portion, and in some cases a very small portion, of the natural surface water systems that pass through the City. The City will actively pursue coordination with upstream jurisdictions and partners to manage these natural resources and share responsibility.***

Policy 5.2.1 Support and actively participate on the Watershed Resource Inventory Area (WRIA) 8 Salmon Recovery Council and implement actions, to the best of the City's ability, that support efforts for Salmon recovery.

Policy 5.2.2 The City should participate in the regional Stormwater Action Monitoring (SAM) program. SAM is a collaborative, regional monitoring program funded through a partnership of over 90 cities, counties, ports and Washington State Department of Transportation. SAM conducts stormwater management practices effectiveness monitoring, status and trends monitoring of streams and nearshore marine waters and source identification studies.

Policy 5.2.3 Support upstream activities of other jurisdictions and non-governmental organizations (such as Adopt-a-Stream and SnoKing Watershed Council) that conduct work consistent with the city's surface water management goals occurring outside of the city's jurisdiction.

## IMPLEMENTATION

Implementation of the Surface Water Element is primarily achieved through the application of the following documents and regulations (available online):

- Western Washington Phase II Municipal Stormwater Permit issued by Washington State Department of Ecology.
    - The 2019-2024 Permit expires July 31, 2024
    - The 2024-2029 Permit begins on August 1, 2029

- City Biennium Budget (constrained budget)
- Periodic analysis of surface water rates
- Surface Water Master Plan
    - Update planned summer 2024 through spring 2025
    - Includes basin plan updates
    - Includes Capital Improvement Program (CIP) updates
    - CIP includes unconstrained budgeted projects
- King County Surface Water Design Manual
    - Updated 2021
- King County Stormwater Pollution Prevention Manual
    - Updated 2021
- Kenmore Road Standards
    - Updated 2021
- Title 13 Kenmore Municipal Code (Surface and Stormwater Utility)
- Title 16 Kenmore Municipal Code (Shoreline Management)
- Title 18 Kenmore Municipal Code (Zoning, Critical Areas)
- Operations and Maintenance Practices and Policies Manual (OMPPM)
    - Updated December 31, 2022
- Integrated Aquatic Vegetation Management Plan
    - Updated 2021
- Climate Action Plan
    - Adopted 2022